SCOTTISH HOSPITALS INQUIRY

Hearing commencing 24 April 2023 - Bundle 12 - Substantive Core Participant responses to Provisional Position Papers and Supporting Documents (External Version) - Volume 2 (of 2)

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Scottish Hospitals Inquiry – Provisional Position Paper 1
Multiplex Construction Europe Limited – Response
3 February 2023

1 Introduction

1.1 The following is a response by Multiplex Construction Europe Limited ("**Multiplex**") to the Public Inquiry's Provisional Position Paper 1, title: *"The Reference Design utilised for the Royal Hospital for Children and Young People and Department for Clinical Neurosciences",* issued by the Inquiry by e-mail dated 16 November 2022 (timed at 14:27) ("**PP1**").

1.2 Multiplex note the terms of the email issuing PP1, together with paragraph 1.2 of PP1 where the Inquiry invites Core Participants to submit corrections and/or look to supplement to the content of the paper. Multiplex is grateful for this opportunity and at this stage, to assist the Inquiry, Multiplex would make the following submissions.

1.3 For the benefit of the Inquiry, Multiplex has included as Schedule 1 to this submission a track change version of PP1 showing its proposed corrections/additions.

2 Mandatory Nature of Environmental Matrix

2.1 Multiplex do not consider the conclusion at paragraph 5.1.34 of PP1 is factually accurate, namely that:

> *"There was a lack of clarity in the procurement documents in relation to: (i) the purpose of the Environmental Matrix; and (ii) whether compliance with the Environmental Matrix was mandatory"*

and respectfully invite the Inquiry to delete this paragraph.

2.2 The Environmental Matrix was provided to bidders on the basis that it replaced ADB RDS M&E Sheets for the mechanical & electrical engineering ("M&E") design and was the document that set out the room environmental condition requirements of the Board within each area, which Project Co was to provide. Bidders were expressly required to confirm acceptance of the Environmental Matrix and any changes to it were only to be proposed on an exception basis. Multiplex therefore do not consider it is correct that there was a lack of clarity. The purpose of the Environmental Matrix was to provide the Board's environmental requirements and compliance with it was mandatory as part of the Board's Construction Requirements.

2.3 In this regard, Multiplex would refer the Inquiry to paragraph 3.87 of PP1, which records Section C8.3 of the ITPD where the Board advised bidders that (our emphasis):

> *"Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation.* ***Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis".***

2.4 We would also refer to the text of ITPD Volume 3 which is set out in paragraphs 3.92 and 3.93 of PP1, which show that the Board's Construction Requirements, both those provided to bidders and those incorporated in the final contract at Financial Close, defined the "Environmental Matrix" as being: *"the room environmental condition requirements of the Board within each department/unit/space/area…."*; with Section 8 then requiring that:

"Project Co shall provide the Works to comply with the Environmental Matrix."

2.5 Multiplex would also refer to the text of paragraphs 3.19, 3.90 and 3.94 of PP1, which states that:

Guidance Note 1 of the Reference Design Environmental Matrix stated that:

"This workbook is prepared…as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements described on these sheets."

"ITPD Volume 3 consisted of Part 6 Section 3 Sub-Sections A to E of the Schedule to the Project Agreement, otherwise called 'the Board's Construction Requirements'. These set out the key design criteria for the project, with the successful tenderer needing to satisfy all the requirements therein."

"In ITPD Volume 3, the terms of the Environmental Matrix are framed as the Board's Construction Requirements, as opposed to being 'indicative'.

2.6 Multiplex respectfully submit that the position outlined above does not align with the text at paragraph 5.1.34. Multiplex considers that the procurement documentation made clear that the Environmental Matrix set out the environmental conditions the Board required in each space and the Board's requirement that bidders did not depart from these.

2.7 Accordingly for the reasons outlined above, Multiplex would respectfully invite the Inquiry to delete paragraph 5.1.34 of PP1.

3 Compliance with standards and Environmental Matrix

3.1 Multiplex note that paragraph 3.49 of PP1 records NHSL's position that:

"NHSL have advised the Inquiry that the M&E design information was always going to be limited at this stage. NHSL considers that it specified compliance with SHTM 03-01 as a minimum engineering standard and it was for the successful bidder to either develop the M&E design to that standard or otherwise seek a derogation from SHTM 03-01.

3.2 Multiplex would respectfully request that its position on compliance with SHTM 03-01 also be similarly recorded in PP1. In this regard Multiplex would refer the Inquiry to Section 2 of its November 2021 Submission (included again for ease as Appendix 01 hereto). The documents provided with the ITPD advised bidders that the design for the ventilation systems was required to comply with SHTM 03-01, but only to the extent that NHSL had not stated an express contrary requirement. Reference is made to Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD[1] (Appendix 02) our emphasis:

*"Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…**except to the extent expressly stated to the contrary in the Board's Construction Requirements** or the Service Level Specification, in compliance with all applicable NHS Requirements"*

[1] Multiplex would also note the text at paragraph 9.7.2 of Provisional Paper 3: "*The NPD Project Agreement included project specific amendments, which had been pre-agreed by the Board of NHSL and SFT. Bidders were encouraged to accept positions within the NPD Project Agreement….*"

3.3 NHS Requirements was defined as follows: *"means: (a) in relation to the Works, Health Building Notes and Health Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements"*

3.4 This position was confirmed in paragraph 2.3 of the Board's Construction Requirements provided as Volume 3 Part 6 of the ITPD (our emphasis):

> *"In addition to the standards listed in paragraph 2.4 of this Sub-Section C,* ***unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement****, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:*
>
> *…*
>
> *h) HTM and SHTM;"*

3.5 This being reflected in the text of paragraph 3.95 of PP1.

3.6 As also noted above, the Board's Construction Requirements provided with the ITPD then defined the Environmental Matrix as being: *"the room environmental condition requirements of the Board within each department/unit/space/area…."*; with Section 8 of the Board's Construction Requirements then requiring that: *"Project Co shall provide the Works to comply with the Environmental Matrix".*

3.7 Multiplex would accordingly respectfully ask that the following further paragraph be added after the current paragraph 3.49:

> *"In response to an earlier draft of this paper, Multiplex directed the Inquiry to the documents provided with the ITPD, in particular Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD and paragraphs 2.3 of the Board's Construction Requirements provided as Volume 3 Part 6 of the ITPD which advised bidders that the Facilities were to comply with SHTM 03-01 unless the Board had expressed elsewhere a specific and different requirement. Multiplex considers that the Board had expressed specific and different requirements in the Environmental Matrix*

3.8 Multiplex also do not agree with the statement at para 3.74 of PP1 that:

> *"Section 2.2(b) of the BCRs placed an obligation upon the successful tenderer to ensure their design complied with CEL 19. No documents provided to bidders, as part of the ITPD, precluded bidders from using ADB to inform their design or from testing their proposed design against the ADB."*

3.9 ADB sheets are a briefing tool used by Health Boards. This is reflected in the Inquiry's text at paragraph 3.13 and paragraph 5.1.13 of PP1 (our emphasis):

> *"CEL 19 mandated that all NHS Scotland Bodies use the English Department of Health's Activity Data Base (ADB)* ***as a tool for briefing, design and commissioning****. Where ADB was deemed inappropriate for a particular project, and an alternative tool was used, the NHS Scotland Body was required to demonstrate that the alternative was of equal quality and value to ADB in its application."*

3.10 As outlined above, the documents provided as part of the ITPD expressly required that the bidders' design comply with the Board's express requirements and defined the Environmental Matrix as setting out, "*the room environmental condition requirements of the Board within each department/unit/space/area…."*. Further, as the Inquiry note in their provisional conclusions at paragraph 5.1.27 of PP1; *"the Environmental Matrices stated that the document was an easier reference tool to replace 'ADB RDS M&E' Sheets".*

3.11 Accordingly, on the RHSC project the Board had decided that the briefing tool and start point for the environmental conditions was the Environmental Matrix, not ADB sheets. This was confirmed by paragraph 2.5.3 of Volume 1 of the ITPD, where NHSL confirmed to bidders that Room Data Sheets were to be developed using the Room Information:

> ***2.5.3 Room Data Sheets***
>
> *Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the "**Room Information**") are detailed in a combination of the following documents:*
>
> - *The Board's Construction Requirements;*
> - *The Environmental Matrix;*
> - *The Schedule of Operational/Design Notes;*
> - *The Equipment Schedule;*
> - *The Equipment Responsibility Matrix;*
> - *The Draft Schedule of Accommodation; and*
> - *The Operational Functionality elements of the Reference Design.*
>
> *During Dialogue Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings have been prepared. For the avoidance of doubt this shall include all Key Rooms and Generic Rooms in addition to those rooms identified in the table at paragraph 2.5.2 above. The Room Data Sheets will form part of the Bidders proposals. The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close.*

3.12 In light of the above, Multiplex would request that the second para 3.74 of PP1 be deleted. Which failing Multiplex would add that the following further sentence be added:

> *"Section 2.2(b) of the BCRs placed an obligation upon the successful tenderer to ensure their design complied with CEL 19. No documents provided to bidders, as part of the ITPD, precluded bidders from using ADB to inform their design or from testing their proposed design against the ADB.* ***Whilst there may have been no express statement precluding bidders testing the proposed design by reference to ADB, the documents provided to bidders set out that that the briefing tool for the environmental conditions selected by NHSL was the Environmental Matrix, not ADB sheets****."*

4 Use of Reference Design

4.1 Given the mandatory elements of the Reference Design, Multiplex consider that the phraseology of paragraph 1.3 PP1 is factually inaccurate where it states: *"and the Reference Design was superseded by work developed by IHSL".*

4.2 The Reference Design was developed by IHSL and NHSL during the preferred bidder period, with both parties co-locating to achieve this. Multiplex would therefore ask that the words: "*and the Reference Design was superseded by work developed by IHSL"* be deleted.

4.3 Likewise, Multiplex do not consider it is wholly accurate to state at paragraph 5.1.6 PP1 that the Reference Design was to be used as a *"springboard for bidders to develop their own designs".* The mandatory nature meant that aspects of the Reference Design and the Board's Construction Requirements had to be included in the bidders' designs and could not be departed from. The Reference Design was therefore not a springboard in the sense that bidders could depart from it in coming up with their own designs, rather it established the foundation and framework of the bidders' designs. Multiplex would accordingly ask that the words: "*and used as a springboard for bidders to develop their own designs"* in paragraph 5.1.6 of PP1 be altered to read as follows "*and used as a foundation and framework for bidders to develop the design subject to compliance with the Board's Construction Requirements"*.

5 Natural Ventilation as part of the Ventilation Design

5.1 The provisional conclusion at paragraph 5.1.40 of PP1 does not reflect the understanding of Multiplex at the time, namely that:

> *"In January 2015, the Board of NHSL determined that there should be no openable windows in the RHCYP/DCN"*

5.2 Similarly Multiplex do not consider the text of paragraph 4.25 to be factually accurate:

> *"Despite the decision of the Board in January 2015 regarding single bedroom ventilation, and the categorisation of the Environmental Matrix as Reviewable Design Data in February 2015, the single bedroom ACH figures reliant on supplementary natural ventilation were not amended by IHSL in a later Environmental Matrix of 26 November 2015"*

5.3 If NHSL determined in January 2015 that there should be "*no openable windows in the RHCYP/DCN*" that was not communicated to Multiplex. What was communicated to Multiplex was something different. Multiplex would refer the Inquiry to their Response to the Inquiry's Research Paper dated 29 July 2022 (included again as Appendix 03 for ease) and the documents referred to therein. In particular paragraph 2.1.4 of Multiplex's previous Response, which explains that (as far as it was communicated to Multiplex) the general statement by Mott MacDonald ("MML") that the design should not rely on openable windows was made in relation to ongoing discussion regarding the pressure regime for single bedrooms, not the Air Change Rate regime. The statement made by MML in its email of 29 January 2015 was as follows: "*the design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice".* Far from suggesting that there should be "*no openable windows",* MML's statement confirms that the windows should be able to open and close, according to the choice of the patient. The statement made by MML was simply that the design solution should not "rely" in any way on opening windows. Furthermore, as is noted at paragraph 2.1.4.10 and 2.1.4.11 of Multiplex's previous response, the email issued by MML on 29 January 2015 was in response to Multiplex's request for information dated 19 January 2015 regarding, *"clarity on the negative/positive pressure regime within the bedrooms".*

5.4 Multiplex also understand that the concerns raised at the time during the Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) ("HAI-Scribe") review related only to the pressure regime. Reference is made to item 2.2 of the minutes of meeting held on 19 November 2014 (Appendix 04):

2.2	Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems?	**Yes**		**No**	**x**	**N/A**	
		Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk/issue.					

5.5 Following the discussion with the NHSL, including the specific meeting held on 13 January 2015 as explained in paragraph 2.1.4.9 of Multiplex's previous July 2022 response, NHSL's requirement for the pressure regime in the single bedrooms was confirmed and the mandated positive pressure requirement defined within the Reference Design Environmental Matrix was changed to a balanced pressure regime for the single bedrooms.

5.6 No further changes were, however, requested by NHSL in relation to the air change regime for the Single Bedrooms.

5.7 Multiplex considers it is also important to note that the design for the single bedrooms air change rate was not reliant on natural ventilation. The Board's Requirements, as set out in the Environmental Matrix, was for 4 AC in the Bedrooms and the design provided 4 mechanical air changes.

5.8 NHSL had also made clear that natural ventilation was to be used as far as possible in the ventilation design, reference is made to Inquiry's text at paragraph 3.98 of PP1:

> *"At Section 5.26 'Energy Strategy', the successful tenderer required to: "provide Facilities that…Minimise internal areas requiring mechanical ventilation". At Section 8.7.8, 'Mechanical Ventilation & Air Conditioning' the need for mechanical ventilation to maintain comfort conditions was of: "paramount importance", and was to be achieved with minimum energy consumption in mind."*

5.9 This also being supported by the Inquiry's text at para 3.51 and 3.52 PP1, relative to the M&E Reference Design Approach Paper.

5.10 Again, this mixed mode approach was provided as part of the ventilation design. In relation to this, the second sentence at paragraph 4.21 of the PP1 is factually inaccurate. The paragraph currently reads:

> *"The Board of NHSL commented on this in October 2014, noting for what appears to be the first time the discrepancy between the ACH for single bedrooms within the Environmental Matrix and those required by SHTM 03-01. IHSL advised this was intentional – the 4 ACH referred to mechanical ventilation only, and was intended to be supplemented by 2 ACH of natural ventilation from openable windows. IHSL believed this was what the Reference Design demanded, and this strategy was reflected in an Air Movement Report for Single Bedrooms produced by Wallace Whittle"*

5.11 In October 2014 the response produced by Wallace Whittle stated the following (being shown in the right-hand column of the below extract):

7. Bedrooms 4ac/hr, SHTM says 6 ac/hr Bedrooms have no extract Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure The supply air to a bedroom has to be balanced with extract e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr	The scheme is based on the Reference design throughout which is essentially mixed mode with openable windows and 2/3rds mechanical supply air to all bedrooms. This gives physiological benefits with access to fresh air control by user and obvious Energy benefits. We have amended the environmental schedule to show the room being balanced which is provided by the opening window.

5.12 In the Air movement Report for Single Bedrooms tabled at the meeting on 13 January 2015 (Appendix 05), Wallace Whittle then concluded:

> *"By utilising the proposed mixed mode ventilation proposal for the bedrooms, ie. Opening windows and trickle vents with the supply air reduced from 6Ac/Hr to 4Ac/Hr direct into the bedroom, this will provide the most energy efficient solution for the space.*
>
> *We believe that we have complied with the reference design concept as detailed within the original Environmental Matrix"*

5.13 It therefore was not advised that "*the 4 ACH referred to mechanical ventilation only, and was intended to be supplemented by 2 ACH of natural ventilation from openable windows".* What was stated was a mixed mode system was being provided, which complied with the Environmental Matrix requirement for 4 air changes per hour. Multiplex also note paragraph 4.21 refers to "IHSL advising", Multiplex's understanding is that the response was produced by Wallace Whittle.

5.14 For the same reasons Multiplex also do not consider the provisional conclusion at paragraph 5.1.38 is factually accurate:

> *"This was disputed by IHSL. IHSL maintained that it was proposing a mixed mode ventilation system – comprising of natural ventilation and mechanical ventilation - which complied with SHTM03-01."*

5.15 Wallace Whittle advised the mixed mode system complied with the Reference Design concept as detailed within the original Environmental Matrix.

5.16 Multiplex would also refer the Inquiry to paragraph 5.26 of the Board's Construction Requirements which states:

> ***5.26 Energy Strategy***
> *Project Co shall provide Facilities that achieve an optimum level of energy and utility conservation. Project Co shall:*
>
> *a) Minimise internal areas requiring mechanical ventilation;*

5.17 Overall, no instruction or direction was issued to seal all windows, or to change from the 4 mechanical air changes shown in the Environmental Matrix. Openable windows remained NHSL's preference and this is what was provided.

5.18 If Multiplex had been instructed to seal all windows and/or change the mechanical air change rate from 4AC to 6AC, Multiplex would have worked with NHSL to achieve this change from the Reference Design Environmental Matrix. It is important to note, however, that had this been requested it would have required a complete re-design of the ventilation strategy, the number, size and capacity of the Air Handling Units and plantrooms, associated systems and the Energy Strategy for the building.

5.19 By way of example, a change from 4 mechanical air changes to 6 would have required the supply ventilation to increase by a factor of 1.5, requiring supply ductwork and AHU plant to increase in size and capacity. The extract system and ductwork would also have required to be re-designed in order to achieve the required pressure regimes, requiring significant additional extract.

5.20 The increase would also have impacted the Low Temperature Hot Water system, as it would have impacted the heat load required for the increased supply air, meaning the plant serving the bedrooms would likely require to be increased. Likewise, the increase would have impacted the Chilled Water systems, due to the need to maintain the bedroom temperature at the required levels.

5.21 The ventilation system is also one of the most energy intensive elements of the building operations. An increase from 4 mechanical air changes to 6, and the required changes to other systems to accommodate this, would have required additional power and additional plant to supply the increased loadings.

5.22 The changed energy profile resulting from an increase to 6 air changes would have required updated SBEM and BRUKL calculations to confirm compliance with Building Regulations, together with an updated Operational Energy Model.

5.23 In relation to the interplay with the Energy Strategy, Multiplex would also note the text at paragraphs 3.83 and 3.88 of PP1 – namely that it was a requirement that the design achieve specific BREEAM ratings. A key item in achieving the required rating was for *"Ventilation solutions as aligned to the RHSC-DCN Environmental Matrix"* as identified in the conclusion of the H&K Section 6 Compliance Report – Final Reference Design, as noted by the Inquiry at paragraph 3.11 PP1.

5.24 During the preferred bidder period the parties worked together to produce an Energy Model which achieved the Board's Requirements and Multiplex would refer the Inquiry to the final agreed version included in the Project Agreement (Appendix 02), which stated the following on pages 7 and 16 of IHSL-XX-XX-DC-4.10_03 (Appendix 06):

- Natural ventilation has been incorporated and working in conjunction with mechanical ventilation (mixed mode ventilation) for perimeter rooms in the facility. The natural ventilation is to be operated through openable windows. The strategy is to use natural ventilation whenever it is feasible or desirable, to maximize comfort. To avoid the risk of over cooling, change-over designs have been adopted, where the facility "changes-over" between natural ventilation and mechanical ventilation on a seasonal or even daily basis. No pollution sources have been identified nearby the Site and additionally the building site is located in a suburban tree lined environment, therefore the proposed natural ventilation strategy is feasible. Details of rooms designed with mixed mode ventilation refer to the electronic document "RHSC DCN IHS Lothian Operational Energy Model Input Data – Financial Close".

3.2.4 Internal Conditions

The main building type has been modelled as a hospital. There are NCM (national calculation methodology) internal conditions available within the simulation that allows figures for the occupants, lighting, miscellaneous, auxiliary ventilation and infiltration rates to be applied to the building. The templates applied to each zone depends on the type of building and the activity within the space, as detailed in the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close" and Appendix 4.4 'Energy Model Inputs Templates – Financial Close'

A detailed analysis was required to ascertain accurate data on the energy loads of the facility and many profiles were created to simulate "actual" internal conditions.

A profile details the time and diversity factor of the internal gain in question and has been used to simulate activity within a room, dependant on the day of the week.

5.25 The Energy Model Input Data incorporated into the Project Agreement as IHSL-XX-XX-DC-4.10_02 noted "Mixed Mode", 4 Mechanical AC, for Bedrooms (Appendix 07)[2]. This model was discussed and agreed with NHSL as part of the discussion during the Preferred Bidder period, by way of example reference is made to Appendix 08.

5.26 As explained above, had NHSL required that the ventilation strategy be changed to seal all windows and increase the mechanical air change rate to 6AC, this would adversely have impacted the energy profile of the building[3].

5.27 This, however, was not requested and instead the Environmental Matrix, which had been reviewed and discussed with NHSL and MML, was incorporated into the Project Agreement as being: , "*the room environmental condition requirements of the Board within each department/unit/space/area…",* showing 4AC in the Bedrooms.

5.28 That 4AC was the design brief was then confirmed during the RDD process after Financial Close and in the final Settlement Agreement. Multiplex is happy to provide further submission in relation to this but appreciate, that the Inquiry is at present only focused on the period up to Financial Close.

5.29 In relation to the position currently set out in the PP1, for the reasons outlined above, Multiplex would ask that the following corrections be made:

5.29.1.1 The second sentence at paragraph 4.21 be deleted and replaced with:

- *Wallace Whittle advised what was being provided was a mixed mode system, with 4 mechanical air changes complying with the Environmental Matrix and providing physiological and energy benefits.*

5.29.1.2 The following be added after the current paragraph 4.21 PP1:

- *At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode", 4 Mechanical AC, for Bedrooms*

5.29.1.3 The following be added after the current paragraph 4.22 of PP1:

[2] This being confirmed in the text at paragraph 14.36 of Provisional Paper 3
[3] Multiplex would also note the text at paragraph 11.25 of Provisional Paper 3, which records Mixed Mode Ventilation *"External air 4ACH cooled to 18C"*

- *At a Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) ("HAI-Scribe") meeting held on 19 November 2014, in response to the questions, "Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems" it was noted: "Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bedrooms. Awaiting drawings and further information to fully understand if this is a risk/issue"*

5.29.1.4 The following be added after the current paragraph 4.23 PP1:

- *On 13 January 2015 a meeting was held between NHSL, Mott MacDonald, Multiplex and Wallace Whittle, at which the ventilation regime for the single bedrooms was discussed[4]. An "Air Movement Report for Single Bedrooms" produced by Wallace Whittle was tabled and discussed at the meeting. ."*

- *Following the meeting on 13 January 2015 Multiplex sought confirmation from NHSL in relation to their requirements for the regime within single bedrooms based on NHSL's review with infection control[5]*

- *NHSL's requirements were confirmed as being for there to be balanced pressure in the single bedrooms, as opposed to the positive pressure shown in the Reference Design Environmental Matrix. The Environmental Matrix was accordingly changed, and the Environmental Matrix incorporated in the Project Agreement at Financial Close required balanced pressure in the Single Bedrooms*.

5.29.2 Multiplex would then suggest that the current paragraph 4.25 PP1 be deleted. This is on the basis that it is not an accurate or complete summation of the full factual background for the reasons outlined above, and is apt to mislead.

5.29.3 In relation to the provisional conclusions at Section 5 of PP1, Multiplex would suggest the following corrections be made:

5.29.3.1 Paragraph 5.1.38 be amended as follows:

"~~This was disputed by IHSL. IHSL~~ Wallace Whittle maintained that it was proposing a mixed mode ventilation system – comprising of natural ventilation and mechanical ventilation - ~~which complied with SHTM03-01~~ which complied with the Board's Construction Requirements".

5.29.3.2 After the current paragraph 5.1.39, the following new paragraph be added:

[4] See Appendix 09 and Appendix 10
[5] see Appendix 11

- *At a HAI-Scribe meeting held on 19 November 2014, concerns were raised in relation to the pressure regime in single bedrooms.*

5.29.3.3 Current paragraph 5.1.40 be deleted.

5.29.3.4 In place of the current paragraph 5.1.40, the following new paragraph be added:

- *On 13 January 2015 a meeting was between NHSL, Mott MacDonald, Multiplex and Wallace Whittle, at which the ventilation regime for the single bedrooms was discussed.*

5.29.3.5 The current paragraph 5.1.41 be deleted and replaced with:

- *It was never communicated to IHSLthat NHSL had determined, in January 2015, that there should be no openable windows in the RHCYP/DCN. It was communicated by email from MML dated 29 January 2015 that the design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice. That email was issued by MML in response to a request for clarification on the negative/positive pressure regime within the bedrooms.*

- *The Environmental Matrix included in the Project Agreement at Financial close was changed such that it showed balanced pressure in the single bedrooms, as opposed to the positive pressure shown in the Reference Design Environmental Matrix. The Air Change Rates for the Single Bedrooms remained at 4 mechanical AC in the Environmental Matrix.*

- *At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode" and 4 Mechanical AC for the Bedrooms.*

5.29.3.6 The current paragraph 5.1.42 be deleted on the basis it is factually inaccurate, the above noted change regarding the pressure regime was made. Failing which, Multiplex would ask that it be amended as follows:

"~~Notwithstanding this disconnect between what the Board of NHSL wished and the solution being offered by IHSL,~~ NHSL did not insist on any changes being made to IHSL's tender (including the Environmental Matrix submitted by IHSL) ***in relation to the air change rates to be provided*** *before a contract was signed. NHSL did request a change to the Environmental Matrix in relation to the pressure regime.* ***The Environmental Matrix at Financial Close was updated to reflect this showing balanced pressure rather than the*** **pressure** ***show in the Reference Design Environmental Matrix"***

6 Ventilation Design at Financial Close

6.1 Multiplex respectfully disagree with the conclusion at paragraph 5.1.43 of PP1 that:

> *"NHSL entered into a contract with IHSL which stipulated that the Environmental Matrix would be 'Reviewable Design Data' under the contract. Therefore, the precise parameters for the ventilation system would be worked out after the contract was concluded."*

6.2 The RDD review process began during the preferred bidder period and, as noted above the Environmental Matrix was specifically discussed with and reviewed by NHSL and MML.

6.3 Reference is made to Section 6, of Multiplex's Response to the Inquiry's Provisional Paper 2, regarding the discussions that took place during the preferred bidder period with NHSL and their technical advisors in relation to the Environmental Matrix.

6.4 A specific design meeting was then held on 11 November 2014 to discuss the NHSL's comments on the Environmental Matrix. Graeme Greer of MM issued a note of the meeting on the same day (Appendix 12). These meeting notes then formed the basis of the comments in Section 5 of Schedule Part 6 of the Project Agreement.

6.5 Multiplex's understanding was that the Environmental Matrix was agreed subject to these comments. No comment was made in relation to the Air Change Rate in the Bedrooms.

6.6 In light of the above, Multiplex would ask that the below corrections be made:

6.6.1 The following to be added before the current paragraph 4.25 of PP1:

- *The Environmental Matrix was reviewed and discussed between NHSL, Mott MacDonald and IHSL during the preferred bidder period. A specific design review meeting was held on 11 November 2014 to review NHSL's comments on the Environmental Matrix. Notes of the meeting were issued by Mott MacDonald. A comment was made in relation to achieving "balanced/negative pressure relative to corridor" in relation to bedrooms. No comments were made in relation to the Air Change Regime in the bedrooms. These notes formed the basis of NHSL's RDD comments in in Section 5 of Schedule Part 6 of the Project Agreement at Financial Close.*

6.6.2 The following to be added before the current paragraph 5.1.43 PP1:

- *A specific design review meeting was held on 11 November 2014 to review NHSL's comments on the Environmental Matrix.*

6.6.3 The second sentence in the current paragraph 5.1.43 PP1 be deleted, on the basis it is inaccurate in its generality, and replaced with:

- *NHSL's comments on the Environmental Matrix at Financial Close were recorded in Section 5 of Schedule Part 6 of the Project Agreement. No comments were made in relation to the Air Change Regime in the Bedrooms.*

6.7 Multiplex is happy to discuss any of the proposed corrections/additions to PP1 with the Inquiry Team if it would be of assistance.

Provisional Position Paper 1

The Reference Design utilised for the Royal Hospital for Children and Young People and Department for Clinical Neurosciences

Purpose of the Paper

This Provisional Position Paper has been produced to assist the Chair in addressing the Terms of Reference. It outlines the Inquiry Team's understanding of the means by which a 'reference design' was adopted for the Royal Hospital for Children and Young People and the Department for Clinical Neurosciences (RHCYP/DCN) and the reasons for that approach.

An earlier draft of this paper was circulated to some Core Participants (CP) for consideration and comment. Those comments have been considered by the Inquiry Team and taken into account in finalising this paper.

The paper focusses on the period from November 2010 to January 2015. The paper explores:

- The contextual factors leading to the decision to produce a Reference Design;
- The agreed scope and purpose of the Reference Design;
- The procedures for reviewing the Reference Design;
- The provision of the Reference Design to tenderers; and
- The adoption of the Reference Design by the preferred bidder.

In due course, the Chair is likely to be invited by the Inquiry Team to make findings in fact, based on the content of this paper. The Inquiry Team does not presently intend to lead further detailed evidence on the matters outlined in it, though inevitably some of those matters will be touched upon to a greater or lesser extent in the hearing set to commence on 24 April 2023. In addition, it is open to any CP – through evidence or submissions – to seek to correct and/or contradict it. It is therefore possible that the Inquiry's understanding of matters set out in the paper may change, and so the position set out in this paper remains provisional. If it is the case that the Inquiry Team's understanding does change significantly, a revised edition of this paper may be published in due course.

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1. Introduction

1.1 The purpose of issuing this Provisional Position Paper (PPP) is to set out the Inquiry Team's provisional assessment of why the mechanism of a 'Reference Design' was adopted for the Royal Hospital for Children & Young People/Department of Clinical Neurosciences (RHCYP/DCN), how it was developed and its role in the procurement exercise for the hospital. In particular, this PPP is concerned with the reasons why NHS Lothian (NHSL) mandated aspects of the RHCYP/DCN's design and why an Environmental Matrix containing environmental information was provided to prospective tenderers.

1.2 The terms of the PPP have been informed by comment from CPs and reflect the Inquiry Team's understanding of the evidence it has available to it. It is intended to assist CPs, as well as informing CPs and the general public of the findings that the Chair may be invited to make by Counsel to the Inquiry. If CPs wish to dispute, or supplement, what appears in the PPP, the Inquiry Team invites them to do so either by way of witness statements or through submissions. In the absence of such notice, the Chair may adopt some or all of what appears in the PPP for the purposes of addressing the Terms of Reference without necessarily considering further evidence.

1.3 The scope of this paper focusses on the period from November 2010 to January 2015. This covers the period when design work conducted under the capital funding model was carried forward for producing a Reference Design under a Non-Profit Distribution (NPD) funding model, to when Integrated Health Solutions Lothian (IHSL) was appointed as preferred bidder~~, and the Reference Design was superseded by work developed by IHSL.~~

1.4 Section 2 of this paper narrates the Inquiry Team's understanding of the principal steps whereby NHSL, with the advice of Mott MacDonald Limited (MML), adopted the concept of a Reference Design as a component within the procurement process for the RHCYP. Section 3 identifies what the Inquiry Team understands to be key documents produced during the procurement process which relate to the Reference Design and which record how its

purpose was understood and how it was put to use. Section 4 identifies what the Inquiry Team understands to be the practical implications on the RHCYP/DCN project as a result of adopting a Reference Design approach. Section 5 sets out the Inquiry Team's provisional conclusions from the evidence set out in Sections 2 to 4.

2. Background to the Reference Design

2.1 The need for a new children's hospital was first discussed by NHSL in 2005. The preferred site was adjacent to the Royal Infirmary Edinburgh (RIE). Once this site was approved, the Royal Hospital for Sick Children (RHSC) project developed through the Outline Business Case (OBC) stage, and early capital design work, from 2008 to 2010. The RHSC was initially to be delivered through Scottish Government (SG) capital funding, using the Framework Scotland procurement programme and the NEC standard form contract.

2.2 During this phase, MML was appointed by NHSL as NEC supervisor. Davis Langdon was appointed separately by NHSL as the NEC Project Managers, and BAM Construction (BAM) was appointed as the Principal Supply Chain Partner. A design was to be produced by BAM and the following design team:

- Nightingale Associates (Concept Architects);
- BMJ Architects (Clinical Architect);
- Hulley & Kirkwood (Services Engineer);
- Arup (Civils, Structural, Traffic and Transport, Acoustics and Fire Engineering); and
- Tribal (Health Planners).

2.3 On 17 November 2010, SG decided to change the funding structure. SG announced that the new RHSC would be funded by a non-profit distributing (NPD) model. This provided for private capital to be used for public projects with a capped return provided to the private sector partner. With the change in funding, it was also decided that the Department of Clinical Neurosciences (DCN) would be co-located with the RHSC and form part of the same project. The combined project was what became the RHCYP/DCN.

2.4 NHSL's Director of Finance (Susan Goldsmith) and Chief Operating Officer (Jackie Sansbury) prepared a report for the NHSL Finance & Performance Review Committee meeting on 12 January 2011. The report provided an update on the RHCYP/DCN reprovision project. The Committee was invited

to:

> "Approve progressing with a detailed reference design for a combined project as a key component of the NPD procurement route utilising either the current Framework Contract with BAM or by procuring the design team through the Office of Government Commerce (OGC) procurement solution."

2.5 The same report further advised:

> "The project and design team currently engaged through HFS Frameworks for the standalone RHSC have effectively been 'stood down' awaiting confirmation of a future role… All knowledge and information produced through the standalone RHSC design process is being captured for future use and consists of all design data at point of suspension, technical validation information, briefing data, cost data and construction information."

2.6 The reasons given in the report for pursuing this Reference Design approach included: "an objective to minimise both the delay to the programme…and the abortive and on-going costs". To achieve this outcome, it was proposed to utilise: "the existing design team to complete the design process". The Board of NHSL appointed MML as Technical Advisor for the revised project with the new funding model on 22 March 2011. The Reference Design Team were appointed under the Contract Control Order (CCO) between MML and NHSL dated 11 July 2011. The Reference Design Team was constituted of the same design team set out at paragraph 2.2 of this paper.

2.7 A review meeting took place on 23 December 2010, including the Scottish Futures Trust (SFT) and SG. Following consideration, NHSL concluded that the recognised route for NPD procurement was to take a 'reference design' to the market. However, as at 9 February 2011, the level of detail had yet to be determined.

2.8 A draft Advisory Paper produced by MML for the Board of NHSL in February

2011 advised that: “for the NPD procurement process, a Reference Design is required to be developed on behalf of the Board”. This position was amended in a later MML paper to reflect the fact that Reference Designs had been: “promoted by the Scottish Futures Trust and the Scottish Government”. In responding to an earlier draft of this paper, MML have told the Inquiry that although there are differences in the wording used in the papers, the intention was the same. Namely, that it was a requirement of SFT and SG that a Reference Design be used in all NPD Procurements.

2.9 The draft Advisory Paper by MML noted that further development of the design was required. In the absence of formal guidance, the Board of NHSL required to decide the extent of the development and precisely how a Reference Design would be used.

2.10 The draft Advisory Paper by MML drew a comparison with ‘Exemplar Designs’ in Public Private Partnership (PPP) projects, which were described as similar to the NPD model from a technical and whole life cost perspective. An Exemplar Design was defined as a design that represented just one example or solution to the output specification. By contrast, a Reference Design was defined as a design representing a specific solution, the key features of which the procuring authority wished to see in the final design. The draft Advisory Paper by MML noted that: “Both an Exemplar Design and a Reference Design represent a springboard for Bidders to develop their own designs however the level of prescription and fixity in the case of a Reference Design is greater.”

2.11 The draft Advisory Paper by MML advised that, historically, the standard approach on PPP projects in England was to develop a robust Exemplar Design. In Scotland, Exemplar Designs were used for indicative purposes only. Bidders were encouraged to develop their own ideas in response to the output specification rather than simply adopt the Exemplar Design. In Northern Ireland, bidders were expected to adopt and develop Exemplar Designs, effectively rendering them mandatory and to be used as a baseline for bidders.

2.12 The draft Advisory Paper by MML noted that the initial view of the Board of NHSL was to pursue a Reference Design approach under NPD more in line

with the Northern Irish Exemplar Design approach under PPP projects. The reasons for this included:

- The significant amount of design work already completed by BAM, resulting in a design that user groups were satisfied with. Although reworking was required to account for the addition of DCN, this was considered marginal compared to the levels of engagement required if three bidders were developing separate designs – with the risk that none of the bidder designs would be considered as effective as the Reference Design;
- NHSL wished to retain control over certain elements of the design. Pursuing a Reference Design was considered the most appropriate way of achieving this; and
- A Reference Design approach was considered the simplest and most cost effective route.

In responding to an earlier draft of this paper, NHSL have told the Inquiry that there had to be a greater level of prescription and fixity beyond an exemplar design because the RHCYP/DCN had to be adjoined to the existing RIE at Little France. The RIE was an existing Private Finance Initiative (PFI) site run by Consort Healthcare Ltd (Consort). NHSL and Consort had to agree and resolve issues such as (i) the interface between RHCYP/DCN with the RIE, and (ii) access/egress to RIE. NHSL's reference design provided bidders with an architectural representation of one possible concept design but which critically illustrated the mandatory requirements imposed on the Board of NHSL as a result of the pre-existing arrangements with Consort.

2.13 In light of this envisaged Reference Design approach, Donna Stevenson, Associate Director of SFT, suggested, in a Project Discussion of 1 February 2011, that contact be made with John Cole in Northern Ireland to learn from work done there concerning Reference Designs.

2.14 An Approach to Reference Design paper produced by MML in 2012 and discussed more fully in Section 3 of this paper summarised the perceived benefits offered by the use of a Reference Design in NPD projects. The paper considered that a Reference Design would reduce procurement costs and

timescales, reduce the amount of clinical user consultation required during the Competitive Dialogue phase, provide greater cost certainty at OBC, and provide greater certainty over the eventual design solution.

2.15 In the draft Advisory Paper by MML, the suggested level of development for the Reference Design was informed by The Design Development Protocol for PFI Schemes (the DD Protocol), an approach to the design development process agreed between the Department of Health, NHS Estates, NHS trusts, the Health and Safety Executive, the Royal Institute of British Architects and the Major Contractors Group.

2.16 In 2007, the DD Protocol was revised as a consultative document to take account of the competitive dialogue procedure. According to the draft Advisory Paper by MML, Section 2 of the DD Protocol advised that a common theme for developing a Reference Design was to define and mandate the 'Clinical Functionality' of the design. 'Clinical Functionality' was defined at Appendix A of the draft Advisory Paper. It concerned the following issues but only in so far as each of these matters related to clinical use:

- the points of access to and within the development site and the buildings;
- the relationship between buildings;
- the adjacencies between different hospital departments;
- the adjacencies between rooms within the hospital departments;
- the quantity, description and spatial areas of those rooms;
- the location and relationship of equipment, furniture, fittings; and
- the location of and the inter-relationships between rooms within departments.

2.17 Appendix B of the draft Advisory Paper by MML set out a list of suggested 'deliverables' for the Reference Design. These suggested 'deliverables' largely reflect the deliverables later agreed for the Reference Design in the CCO appointing the Reference Design Team and discussed more fully at paragraph 3.1 of this paper.

2.18 The Project Working Group discussed how rigid the scope of the Reference

Design should be. At a meeting on 26 May 2011, the Project Working Group recognised that: “defining things too rigidly may compromise the design quality”. The Project Working Group appreciated that NHSL would need to be clear with bidders on the scope for flexibility. At a Project Working Group of 2 June 2011, a Procurement Options paper was tabled and discussed at length by all the parties present from NHSL, SFT, MML and Davis Langdon. Responses from Core Participants to a previous draft of this paper have indicated that the Procurement Options paper in question bears the issue date of 16 June 2011 and was prepared for NHSL by MML and Davis Langdon.

2.19 It was stated in the introduction to the paper that NHSL was in discussions with SFT: “to determine the shortest possible procurement route. The procurement process options, and their associated timescales, are directly linked to the approach adopted on the reference design”. The paper considered four approaches to the Reference Design, along with their benefits and drawbacks.

2.20 Option A was to mandate the design so far as it related to Clinical Functionality. This had the perceived benefit of keeping the risk transfer profile intact, insofar as Clinical Functionality risk already sat with the Procuring Authority, while all other design risk remained with the private sector. It was also suggested that Option A raised few issues with the Reference Design Team members subsequently joining bid teams. The approach was described as more encouraging of bidder innovation in terms of the architectural, services and structural solutions than other options, whilst allowing a greater level of certainty upfront over the clinical solutions than with an exemplar approach. The large part of the design to be developed was seen as an opportunity for potential bidders to use their expertise thus potentially increasing the attractiveness to the market. It was also considered to be the most cost-effective option. In terms of drawbacks, it was noted that mandating elements of the design would limit innovation to an extent, and involve a more detailed and longer competitive dialogue period than Options B and C to enable bidders to develop the design. The level of clinical engagement was also considered greater than Options B and C.

2.21 Option B was to mandate the full design. It was believed this would reduce the time required for competitive dialogue, as well as reducing to a minimum the level of engagement required between bidders and clinical user groups. It was also believed that Option B would give a greater degree of certainty over affordability of the project. The drawbacks of Option B were that it might require a longer period for the design stage before launching the procurement process, it raised risk transfer issues for the private sector (in that for the private sector to accept design risk, they would require a full due diligence exercise on the design), it was more costly to NHSL than Option A, and limited innovation to the extent that procurement became a competition based mostly around pricing.

2.22 Option C was described as the same as Option B, but involved novation of the Reference Design Team to the successful bidder. This option was noted as a new approach not done before on PPP or NPD type projects, requiring detailed analysis to understand the extent to which it was deliverable. Nevertheless, it was noted that this option, in reducing bid costs, was potentially more attractive to potential bidders than Options A and B. It was also noted that novation of the Reference Design Team would allow design risk (excluding Clinical Functionality) to be transferred in full to the private sector.

2.23 Option D was to develop an Exemplar Design – referred to as the: “approach typically used in previous health PPP/PFI projects”. This was noted to be less costly than Options A, B and C and would transfer full design risk to the private sector (excluding Clinical Functionality) – however intensive clinical input throughout the bid period was anticipated, requiring the longest period for competitive dialogue.

2.24 Option A was selected and agreed as the favoured route at the aforementioned Project Working Group of 2 June 2011.

2.25 Another draft report titled ‘Procurement Strategy’ explained that Option A was a departure from what normally happened in a PPP type project. In response to an earlier draft of this paper, MML have told the Inquiry that this dates to

July 2011. The report advised there was increasing precedent for Procuring Authorities to undertake a degree of design work in the early stages of a project and pass it to bidders either as mandatory or as an exemplar. The report comments that the Board of NHSL's advisors had contact with potential bidders and this led them to the view that Option A would be acceptable to the market.

2.26 In response to an earlier draft of this paper, NHSL have told the Inquiry that it agreed to proceed on the basis of Option A since it adopted the principle of using a reference design (and therefore utilised some of the work done to date) while having advantages around risk transfer, innovation, market interest and cost of design without resulting in an unacceptable programme or overly onerous clinical user involvement requirements through the procurement process.

3. Key Documents Relating to the Reference Design

Contract Control Order appointing the Reference Design Team (the CCO)

3.1 The CCO appointing the Reference Design Team, dated 11 July 2011, set out the 'Deliverables' the Team had to deliver, and provided whether these would be mandatory for bidders to adopt.

3.2 In response to an earlier draft of this paper, MML have told the Inquiry that the purpose of the CCO was limited to appointing the Reference Design Team to develop design deliverables.

3.3 Room Data Sheets were categorised as a deliverable that would mandate and fix 'Clinical Functionality' (as defined at paragraph 2.16 of this paper). The Room Data Sheets were to be mandatory for bidders.

3.4 Capita was responsible for leading this phase, and Hulley & Kirkwood (H&K) were responsible for developing the 'environmental information'. From a review of the Room Data Sheet format, the Inquiry Team understands that 'environmental information' relates to aspects such as the noise, lighting, temperature, ventilation, and air pressure requirements needed for the effective service of clinical functions within specific rooms of a hospital. 'Environmental information' is variously referred to as 'environmental data' and 'environmental parameters' in the documentation available to the Inquiry Team. The Inquiry Team understand these terms to be interchangeable and will adopt the term environmental information in this paper for the sake of consistency.

3.5 This environmental information had not been included in the definition of Clinical Functionality set out at Appendix A of the draft Advisory Paper by MML and discussed in paragraph 2.16 of this paper. Thus it had not been included as a mandatory requirement for bidders.

3.6 For Mechanical & Electrical (M&E) engineering specifications, the CCO noted there would be no input from the Reference Design Team, although both the Engineering Design Philosophy and Energy Strategy and Schedules of Power, Heating and Cooling Loads was: “needed to support BREEAM pre-assessment”.

BREEAM 2008/2011 Comparison

3.7 In September 2011, H&K produced a report investigating the project’s potential to meet new Building Research Establishments Environmental Assessment Method (BREEAM) requirements.

3.8 The ‘Report Scope’ section states that: “‘BREEAM Healthcare 2008’ was first issued on 24 June 2008. As of 1 July 2008 all health authorities in the UK required that all healthcare buildings seeking OBC approval commit to achieving an Excellent rating.” This second point is not strictly accurate. The 2009 publication of HTM 07-07 did introduce such a requirement, but the requirement did not apply in Scotland. The requirement was introduced later in Scotland. In April 2009, ‘A Sustainable Development Strategy for NHS Scotland’ was published. It provided that: “Scottish Government Health Directorate support the general thrust of the other UK health departments that from August 2008 all Boards should seek to attain the BREEAM Healthcare ‘excellent’ rating for new builds and ‘very good’ rating for refurbishment of existing properties. SGHD [Scottish Government Health Directorate] is currently integrating such a requirement into its procurement policy and guidance, for building projects of £2 million or more.” The requirement was reflected in SG policy set out in Chief Executive Letter 19 (2010) (CEL 19) and in the Scottish Capital Investment Manual Business Case Guide of 18 July 2011: “All new build above £2m are required to obtain a BREEAM Healthcare/ or equivalent ‘Excellent’ rating”.

3.9 The ‘Report Scope’ section of H&K’s September 2011 paper further states that, during February 2010, H&K confirmed that an ‘Excellent’ rating was

achievable for the RHSC. Following the change of procurement route and inclusion of the DCN, H&K assessed the combined building under the 2008 assessment method. H&K confirmed on 8 July 2011 that an 'Excellent' rating was achievable. The 'Report Scope' does not explicitly state that this, and further BREEAM assessments, were based on the Reference Design. However, the Inquiry Team understands from responses from CPs to a previous draft of this paper that this was the case.

3.10 On 1 July 2011, the 'BREEAM 2011 New Construction' scheme was launched. This was a more onerous assessment method than 'BREEAM 2008'. The purpose of H&K's September 2011 report was to highlight the key differences between the 2008 and 2011 assessment criteria and how this would affect the BREEAM rating.

3.11 The report indicated that an 'Excellent' rating was not likely to be achieved under BREEAM 2011; a 'Very Good' rating being more achievable. A later assessment confirmed this. According to H&K, one of the minimum requirements to achieve an 'Excellent' rating under BREAAM 2011 was to reduce CO2 emissions 25% further than targets set as a result of Schedule 5, part 6 of the Building (Scotland) Regulations 2004, as amended by The Building (Scotland) Amendment Regulations 2010 (the Building (Scotland) Regulations). This reduction was to a level H&K believed was likely to incur significant design and cost implications for the project - even if it were possible to implement. On this basis it was not considered a practical proposition given the nature of the site. Notwithstanding this, H&K later confirmed in a Section 6 SBEM Compliance Report that the building could meet the CO2 emission targets set out Schedule 5 Part 6 of the Building (Scotland) Regulations, by adopting ventilation solutions aligned with the Environmental Matrix, discussed below.

The Environmental Matrix and Ward Room Thermal Comfort Analysis

3.12 SG policy set out in HDL (2006) 58 made the use of Activity Database Sheets mandatory. This policy was updated by CEL 19. CEL 19 includes a document called 'A Policy on Design Quality for NHS Scotland' (the Design Quality Policy). CEL 19 remained extant for the duration of the project.

3.13 Mandatory requirement 7 of the Design Quality Policy states that:

> "All NHS Scotland Bodies engaged in the procurement of both new-build and refurbishment of healthcare buildings must use and properly utilise the English Department of Health's Activity Data Base (ADB) as an appropriate tool for briefing, design and commissioning.
>
> [If deemed inappropriate for a particular project and an alternative tool or approach is used, the responsibility is placed upon the NHS Scotland Body to demonstrate that the alternative is of equal quality and value in its application.]"

3.14 The Design Quality Policy also contains a section entitled 'Activity Data Base (ADB)' which states that:

> "Activity Data Base (ADB) is the briefing, design & commissioning tool for both new-build and refurbishment of healthcare buildings. It is a briefing and design package with an integrated textual and graphical database, an interface with AutoCAD and an extensive graphical library - the complete tool for briefing and design of the healthcare environment. ADB is produced by the Department of Health in England and is mandated for use in Scotland by the Scottish Government Health Directorates as the preferred briefing and design system for NHS Scotland (see Mandatory Requirement 7 of this Policy). It has been developed to assist in the construction, briefing development, design and alteration of healthcare facilities.
>
> Spaces designed using ADB data automatically comply with English

planning guidance (such as Health Building Notes (HBNs) and Health Technical memoranda (HTMs) as ADB forms an integral part of the English guidance publication process. Whilst Scottish users can create their own project-specific briefs and designs using ADB's extensive library of integrated graphics and text which includes room data sheets, room layouts and departmental room schedules, extreme care should be taken to ensure that such data generated by the package are consistent and compliant with Scottish-specific guidance such as Scottish Health Planning Notes, Scottish Health Facilities Notes (SHFNs) and Scottish Health Technical Memoranda (SHTMs) as published by Health Facilities Scotland."

3.15 On 9 September 2010, H&K produced an 'Environmental Matrix' for the standalone RHSC, before the DCN was included in the project. This was the first Environmental Matrix associated with the project.

3.16 The purpose of the Environmental Matrix was set out in emails between H&K and BAM from that year:

"With regards to environmental issues, rather than employ ADB M&E sheets, H&K will produce Environmental Matrix spreadsheet for each room type for easy reference as a user sign off tool." [15 February 2010]

"This document is intended as an easier tool to replace ADB RDS M&E sheets for the elements covered in the matrix." [8 September 2010]

3.17 On 3 February 2012, H&K produced the first version of an Environmental Matrix for the combined RHCYP/DCN project. This was based on the initial Environmental Matrix of 2010.

3.18 H&K subsequently developed the Environmental Matrix of 3 February 2012 to produce an Environmental Matrix dated 19 September 2012. This Environmental Matrix was supplied to bidders with the Reference Design as part of the ITPD, as will be discussed later in this paper. In a number of documents provided to the Inquiry Team, the Environmental Matrix of 19 September 2012 has been referred to as the 'Reference Design Environmental Matrix'.

3.19 Guidance Note 1 of the Reference Design Environmental Matrix stated that:

> "This workbook is prepared…as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements described on these sheets."

3.20 In response to an earlier draft of this paper, H&K have told the Inquiry that the Environmental Matrix was derived by reference to published guidance including SHTMs and HTMs current at the time of the reference design (2011/2012) and Reference Design client briefing information, as referred to within the Guidance Notes page of the matrix. The Inquiry Team understands that this Reference Design client briefing information refers to an NHSL Design Brief dated 10 June 2011.

3.21 The 10 June 2011 Design Brief stated that:

> "Comprehensive NHS Estates design guidance has informed the departmental accommodation requirements; these include Health Building Notes (HBN), Health Technical Memoranda (HTM), Scottish Health Planning Notes (SHPN), Scottish Health Technical Memoranda (SHTM) and Activity Data Base (ADB). There are some slight variations between 'English' UK wide healthcare estates guidance and the Scottish versions. Project teams and designers have to be aware of this, however universal space and ergonomic standards apply."

Under the heading 'Heating, Ventilation and Air Conditioning Systems', the following text appeared:

> "The need to maintain acceptable comfort conditions in all areas is of paramount importance and the designer needs to demonstrate their strategy for achieving optimum comfort together with minimum energy consumption.
>
> "Ventilation systems provided throughout the hospital should comply with all relevant HBN and HTM standards".

3.22 H&K were asked by the Inquiry Team to confirm how it was demonstrated that the Environmental Matrix was of equal quality and value to ADB. H&K have advised the Inquiry Team that this relates to information outwith H&K's knowledge.

3.23 The Environmental Matrix specified environmental information that was potentially inconsistent with published guidance, namely SHTM 03-01 which outlines ventilation requirements in a hospital. Certain single and multi-bed rooms in the Critical Care department were shown in the Environmental Matrix to require 4 air changes per hour (ACH). This differed from the 10 ACH recommended for Critical Care Areas in SHTM 03-01. This inconsistent information was contained in the version of the Environmental Matrix provided to bidders within the ITPD. Specific aspects of the Environmental Matrix and its iterations are addressed in a separate paper by the Inquiry Team. This issue will also be explored in greater detail at the hearing in April 2023.

3.24 The first reference to the 4 ACH figure seen by the Inquiry Team is in an email of 2 July 2010 from H&K to BAM. 4 ACH is quoted as being sufficient to maintain a temperature range of 18°C to 28°C in typical single bedrooms and multi-bed rooms/wards (those not in Critical care). The design solution given for High Dependency Unit (HDU) bed areas is 10 ACH.

3.25 The email goes on to narrate that the 4 ACH: "would be supplemented by opening windows for natural ventilation". This information was repeated in the Guidance Notes of the very first Environmental Matrix of 2010 for the RHSC, before the DCN was included in the project.

3.26 H&K also produced a report titled 'Ward Room Thermal Comfort Analysis' on 21 February 2012. The purpose of the report was to determine peak temperature profiles for typical room accommodation, with a focus on identifying M&E engineering solutions that would keep internal temperatures below 25°C. This temperature was a briefed maximum by NHSL, given experiences in the ERI.

3.27 Simulations conducted for that report illustrated that exclusively mechanical

ventilation and mechanical ventilation supplemented by some natural ventilation were both capable of maintaining a temperature of 25°C or less with only 4 ACH. H&K did not analyse Critical Care and HDU type ward rooms in the study. The report stated that: "…critical care and high dependency type ward rooms which receive air change rates in the region of 10 ACH, have not been analysed in this study". The reference to critical care and HDU type ward rooms having 10 ACH is in line with SHTM 03-01.

3.28 In January 2015, the Board of NHSL, acting on input from NHS National Services Scotland (NHS NSS), considered that: "the design solution should not rely in any way with the opening windows". This issue will be discussed further at paragraphs 4.20 to 4.23 of this paper.

The Outline Business Case (OBC) and Early Design Review

3.29 An OBC for the RHSC re-provision was submitted to SG and approved by the Capital Investment Group in August 2008. An OBC for the re-provision of DCN was approved by NHSL in December 2009, but did not proceed to SG because capital funding was not available. After the change in funding model to NPD, SG approved the development of an update to the existing (approved) OBC to include DCN as part of the same project. On 25 January 2012, that OBC was approved by the Board of NHSL.

3.30 At the time of the OBC, confirmation was pending on whether BREEAM 2008 or 2011 was to be adhered to. However, SG policy was for all new NHS buildings to achieve the standard of BREEAM Healthcare 'Excellent'.

3.31 Reference was made within the OBC to design task groups that would ensure staff could feed into the Reference Design. These groups were to engage with their colleagues and the project team to develop and agree operational briefs that reflected their requirements, and to review project designs and proposals and feed back to the design team. Provision was also made for a Reference Design Task Group to have monthly meetings.

3.32 In response to an earlier draft of this paper, IBI Group (UK) Limited (IBI) (formerly Nightingale Associates) have told the Inquiry that they are unaware

of any monthly meetings between a 'Reference Design Task Group' but that regular meetings took place among the Reference Design Team members themselves. MML have informed the Inquiry that the following task groups were in place:

- Clinical Functionality
- Design and Construction
- Planning
- Consort Enabling Works
- Flood works
- Transport
- Art and Therapeutic Design
- Helipad Group
- Furniture and Equipment
- Catering
- Facilities Management

3.33 MML also advised in their response that Additional Task Groups dealt with the development of the contract documents covering the Clinical, Design & Construction, Legal and Financial aspects of the project. Specialist NHSL Project Managers led the meetings. MML representatives attended task group meetings in an advisory role. A document provided by NHSL in response to an earlier draft of this paper states that the purpose of the design sub task groups was to produce, with the project and design team, proposed 1:200 designs for their department and any required detailed 1:50 designs. The 1:200 designs involved planning internal room adjacencies whilst the 1:50 designs involved input from user groups on specific equipment requirements of certain rooms (from coat hooks to large scanners).

3.34 Further provision was made in the OBC for Capital Planning Project Managers to act as the liaison between NHSL, the Reference Design workstream, and the Design and Construct workstream. They were to be responsible for informing the Board's Construction Requirements (BCRs) and ensuring these were agreed by the appropriate NHSL user groups. Neil McLennan and Graham Gillies were named in these roles in a Project

Execution Plan from September 2011.

3.35 Provision was also made in the OBC for Clinical Management Teams (CMT), who had operational management responsibility for children's services and DCN, to sign-off the Reference Design at all stages prior to final approval by NHSL. In response to an earlier draft of this paper, NHSL have provided documentation to the Inquiry which indicates that these sign-offs related to departmental drawings and Clinical Output Specifications as opposed to environmental information. In their response to the earlier draft of this paper, NHSL have told the Inquiry: "The clinicians reviewed the design in relation to space and content, i.e. the layout, adjacencies, clinical activities and equipment required…The clinicians are not M&E engineers…NHS Lothian appointed Technical Advisors, MML, to manage the specialist M&E aspects of the project."

3.36 The OBC stated that the Reference Design and development of the final design with the preferred bidder would be subject to a range of reviews as work progressed. These reviews included a Health Facilities Scotland NDAP – Design Assessment. The Scottish Capital Investment Manual Supporting Guidance: Design Assessment in the Business Case Process, dated 5 July 2011, provided: "From the 1 July 2010 an assessment of design quality will become part of the business case approval process…Accordingly projects submitted to the Capital Investment Group (CIG) for business case approval will be assessed for compliance with current published guidance. To facilitate this, Boards will be requested to submit a comprehensive list of the guidance that they consider to be applicable to the development under consideration…together with a schedule of derogations that are required for reasons specific to the project's particular circumstances…Projects submitted for the business case process will be assessed for compliance with the following:…SHPN…SHTM…The assessment considers the general areas of design being addressed by the project team as a high level verification for the board and the CIG, as such it should not be seen as a replacement for the project team's in-depth consideration of technical and other standards." The Transitional Arrangements set out in the document provided: "This guidance shall apply to all projects submitted for approval of the Initial Agreement (IA)

after 1 July 2010. Projects that have not received approval of their Outline Business Case (OBC) by 1 July 2010 shall be considered for the assessment process on a case by case basis."

3.37 On 6 February 2012, Thomas Brady of Davis Langdon emailed Richard Cantlay of MML and others and advised: "The reference design team have been trying to ascertain, for some time now, if we need to complete a NDAP (NHS Design Assessment Procedure) review of the scheme…a meeting was to be held on 20th Jan between SFT/HFS/A+DS/Scottish Government to discuss if the NDAP review procedure was a requirement for NPD Contracts." In response, David Stillie of MML responded: "Meeting did take place on 20 January and I spoke to Peter Henderson (architect) at HFS on 23 January. No clear way forward came out of the meeting but he did say that everyone present appreciated that RHSC/DCN project had been reviewed 'to death'. I was unable to get a definitive answer from him before the last RDT meeting as he wanted to discuss further with SFT. I think it now falls to NHSL, probably Brian, to move this forward with SFT. I imagine he is reluctant to raise the issue in case it prompts a further round of review meetings."

3.38 In response to an earlier draft of this paper, IBI have provided the Inquiry with a Change Control Form dated 9 March 2012 that states: "Due to the reference design team being unable to obtain a clear brief from SFT, NHSL or the PME for the NDAP review please be advised that the reference design programme can no longer accommodate this review. Accordingly it has now been deleted from the Reference Design Team Scope of Works."

3.39 Given that the OBC was approved in 2008, the transitional provisions in relation to NDAP reviews applied. There was no absolute requirement for an NDAP to be completed. The Inquiry has not been provided with an NDAP review by any CP. The Inquiry Team therefore proceeds on the basis that no such review was undertaken for the project.

3.40 The OBC stated that an Achieving Excellence Design Evaluation Toolkit (AEDET) had influenced development of the Reference Design. According to AEDET Guidance Notes produced for the RHCYP/DCN, AEDET was a tool

for evaluating the quality of design in healthcare buildings. The toolkit was developed in partnership by the NHS, CABE (Commission for Architecture and the Built Environment), the Construction Industry Council, and Sheffield University. It was: “specifically aimed at achieving excellence in design rather than ensuring compliance with any technical criteria or legislation.” AEDET was: “designed to be used by those involved in the commissioning, production and use of healthcare buildings.”

3.41 The NHSL Design Brief dated 10 June 2011 and discussed at paragraphs 3.20 and 3.21 of this paper stated that: “The Reprovision project team will use AEDET as a structure to monitor agreed standards through all stages of design to completed construction.” In oral evidence given to the Inquiry on 18 May 2022, NHSL Project Director Brian Currie stated that AEDET: “was undertaken by essentially the reference design team led by the architect for the reference design team.”

3.42 According to the AEDET Guidance Notes produced for the RHCYP/DCN, AEDET split the design into ten sections to summarise how well a healthcare building complied with best practice. A score was produced for each section, indicating its strengths and weaknesses. As at 12 August 2011, Engineering, Performance and Construction scoring criteria were deemed: “not relevant at this stage in design development”.

3.43 On 12 December 2011, an Independent Design Review of the RHCYP/DCN was published by Atkins Consultants Ltd (the Atkins Report). This was instructed by SFT to review the value for money of the proposed building design together with the programme-wide design objectives, namely that the design (i) met the strategic needs for efficient and effective long-term service delivery, (ii) eliminated unnecessary space, maximising the potential sharing of space and fully integrating with an efficient service strategy, and (iii) minimised the whole life costs of the building and achieved the appropriate sustainability targets.

3.44 The Atkins Report reviewed the Reference Design: “to assess value for money in the creation of the environment for patients and staff.” In relation to the AEDET review of 12 August 2011, the Atkins Report noted that: “A number

of elements are unable to be scored at this stage because the design is insufficiently developed. In particular performance, engineering and construction cannot be scored at this stage." The remainder of the Atkins review into the Reference Design was limited to the choice of site and ability to expand the development, access points, links to the RIE, orientation of patient bedrooms for sunlight, traffic flows within the building, and clinical adjacencies.

3.45 A later AEDET Review was undertaken on 8 March 2012. The author of this review is given as 'DH Estates and Facilities'. The purpose of the document is stated to be 'Best Practice Guidance'. Section F relates to Engineering and: "asks whether the engineering systems are of high quality and fit for their purpose, will be easy to operate and if they are efficient and sustainable." This section was 'unable' to be scored (as opposed to 'not relevant'). However, an email from SFT to NHSL advises that the Reference Design was completed before 30 April 2012. The Inquiry therefore understands that the Reference Design was significantly developed at the time of this AEDET review, and that some degree of assessment of the Engineering criteria could have been possible.

3.46 The fact that the AEDET review includes an Engineering category suggests that review of this Reference Design element was envisaged. However it is unclear to the Inquiry Team what Reference Design outputs the review was aimed at assessing. M&E engineering specifications were produced by the Reference Design Team in the form of the Environmental Matrix, the first of which was produced specifically for the RHCYP/DCN on 3 February 2012. This constituted an engineering element of the design that was available at the time of the second AEDET review and which had a bearing on the design's efficiency and sustainability, as outlined in paragraph 3.11 of this paper.

3.47 In response to an earlier draft of this paper, IBI have advised the Inquiry that AEDET provides a toolkit for evaluating the overall design of healthcare buildings; it is not intended to involve a detailed review of the technical design or compliance with healthcare guidance. IBI have advised the Inquiry that, by 8 March 2012, it would not have been possible to review the design of the

Performance, Construction and Engineering elements of the design. The outputs from the Reference Design process would have been insufficient to inform these elements. A review of these elements under AEDET would not, to IBI's understanding, have been aimed at assessing compliance with healthcare guidance such as SHTMs.

3.48 In response to an earlier draft of this paper, MML have advised the Inquiry that it was not party to the AEDET review of 8 March 2012 and therefore cannot confirm why Performance, Engineering and Construction were marked as 'unable' to be scored.

3.49 In response to an earlier draft of this paper, NHSL have advised the Inquiry that the M&E design information was always going to be limited at this stage. NHSL considers that it specified compliance with SHTM 03-01 as a minimum engineering standard and it was for the successful bidder to either develop the M&E design to that standard or otherwise seek a derogation from SHTM 03-01.

In response to an earlier draft of this paper, Multiplex directed the Inquiry to the documents provided with the ITPD, in particular Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD and paragraphs 2.3 of the Board's Construction Requirements provided as Volume 3 Part 6 of the ITPD which advised bidders that the Facilities were to comply with SHTM 03-01 unless the Board had expressed elsewhere a specific and different requirement. Multiplex considers that the Board had expressed specific and different requirements in the Environmental Matrix.

The 'M&E Reference Design Approach Paper'

3.50 In an M&E Reference Design Approach paper of March 2012, H&K advised that:

> "The building engineering services Reference Design Envisaged Approach is set out to demonstrate that compliance with Section 6 2010 is possible and to provide the vision for an energy efficient hospital without detriment to reliability of service or comfort to the patient and staff whilst complying with all relevant statutory legislation and healthcare guidance."

The Inquiry understand that the above reference to 'Section 6 2010' refers to Schedule 5, Part 6 of the Building (Scotland) Regulations.

3.51 The M&E Reference Design Approach Paper continued:

> "Although the development will be designed to maximise the use of natural ventilation, it is intended that rooms will not be reliant on natural ventilation alone, unless they comply with maximum temperature limits listed in the RDS Environmental Matrices."

3.52 The document also contains an Encode Checklist with the following questions answered in the affirmative:

- "Has every effort been made to use a natural ventilation strategy?
- If natural ventilation is not possible, can a mixed-mode approach be used?
- If mixed-mode ventilation is not possible then has every effort been made to use the most efficient ventilation in accordance with HTM guidance?"

The 'Approach to Reference Design' Paper

3.53 The Approach to Reference Design paper was designed to be used as a basis for accurately conveying NHSL's intentions to bidders in relation to mandatory and non-mandatory elements of the Reference Design. MML were the lead authors, with collaboration from NHSL and SFT. In response to an earlier draft of this paper, MML have told the Inquiry that the paper was an internal document which was not issued to bidders.

3.54 The latest version of the paper is Revision J, dated 28 August 2012.

3.55 Revision J states that the RHCYP/DCN project required greater input than would normally be the case in preparing a Reference Design. This was attributed to unique issues surrounding development of the facility on the existing RIE site, such as connections required to the RIE building, and the restricted nature of the site being bounded on all sides by existing infrastructure.

3.56 The Executive Summary reiterated that the project board agreed to develop a Reference Design in July 2011 to mandate elements relating to 'Clinical Functionality'.

3.57 Concerned that 'Clinical Functionality' referred to both clinical and non-clinical functions, and that this could lead to confusion, the paper agreed that 'Operational Functionality' should be used in preference. This was because: "some of the mandatory areas of the Reference Design will cover non-clinical functions".

3.58 The paper does not define 'Operational Functionality'. This was something flagged for development by the Procurement Workstream when drafting the Project Agreement for inclusion in the ITPD. Although a definition reflecting 'Clinical Functionality' appeared in ITPD Volume 2, this was only in 2013. In Revision J, the only indication of what 'Operational Functionality' meant was that it was 'based' on the definition of 'Clinical Functionality' set out at Appendix A. This reflected the definition set out in the draft Advisory Paper by MML discussed in paragraph 2.16 of this paper. Despite this, it was stated in Revision J that the principal purpose of the Reference Design was to define 'Operational Functionality'.

3.59 Revision J provided that bidders were: "to be fully briefed on non-negotiable status of Reference Design". Any attempt by bidders to revisit its terms were to be resisted. The justification for this was that further review might lead to: "additional affordability and programme risks" and curb the benefits of having prepared a Reference Design in advance of the ITPD.

3.60 An earlier draft of the Approach paper (Revision C) highlighted a concern that existed around the willingness of bidders to adopt mandatory elements of the Reference Design. NHSL's Project Director Brian Currie, in reviewing this draft, commented:

> "Concern from whom? We need to be more assertive here and just state what we will be doing… we will be controlling the process and agenda not the bidder…This is a discourse which may invite lengthy debate which we don't have time for".

3.61 Revision J also advised that those parts of the Reference Design that did not relate to Operational Functionality (named the non-mandatory elements) were for bidders to develop with freedom: “constrained only by the requirements of the Board’s Construction Requirements” (BCRs). These were set out at Section 3 of Volume 3 of the ITPD.

3.62 Concern around the scope for bidders to develop their designs in light of the degree of mandatory elements was raised by Donna Stevenson, Associate Director of SFT, in a meeting on 26 April 2012 between SFT and NHSL. At this meeting, the Approach paper was discussed in detail. An email from Donna Stevenson to Brian Currie on 30 April 2012 indicates these concerns related to the shape of the building. Brian Currie provided reassurance that bidders would be able to change this.

3.63 Non-mandatory elements of the Reference Design are considered under two headings in Revision J: information that would be prepared and made available to bidders even in the absence of a Reference Design, and information that had been prepared as a consequence of preparing the Reference Design. This information was to be issued only so bidders could understand the intent of the Reference Design. It was for bidders to refer to the BCRs for the detailed requirements, as BCRs took precedence over the Reference Design for non-mandatory matters. This was repeated in ITPD Volume 1 at paragraph 2.6: “Bidders are advised that the Board’s Construction Requirements will always take precedence over the Reference Design for matters which do not define Operational Functionality…”

3.64 Revision J featured the Reference Design Deliverables at Appendix B, which advised that ‘environmental parameters’ within Room Data Sheets – understood by the Inquiry Team to mean the same as ‘environmental information’ - was mandatory for bidders to adopt. However as stated previously, environmental information was not included in the definition of Clinical Functionality, which was set out at Appendix A of Revision J.

3.65 References to Room Data Sheets were removed from the remainder of the Revision J.

3.66 The Inquiry understands that the removal of references to Room Data Sheets was done to reflect the fact that NHSL instructed Nightingales to cease production of Room Data Sheets by a CCO dated 17 May 2012.

3.67 According to Revision J:

> "previously in PFI and PPP projects, draft or indicative Room Data Sheets could be issued…In NPD projects with a Reference Design there is a requirement for a more complete set of Room Information to be available to Bidders".

3.68 Revision J continued:

"The specific room requirements (the 'Room Information') will be detailed in a combination of:-

- The General Requirements (subsection C of the Board's Construction Requirements);
- The Clinical Output Specifications (subsection D of the BCRs);
- The Adjacency Matrix (appendix A to the BCRs);
- The Environmental Matrix (appendix B to the BCRs);
- The Schedule of Operational/Design Notes (appendix C to the BCRs);
- The Equipment Schedule (Schedule Part 11 of the Project Agreement);
- The Schedule of Accommodation; and
- The Operational Functionality elements of the Reference Design."

This paragraph stated that the:

> "Environmental Matrix specifies parameters and criteria that need to be met and for which the Bidders will be required to advise the levels that will be achieved in their particular design."

The language used in this paragraph of Revision J, together with Appendix B, indicates that the environmental information contained within the

Environmental Matrix, and therefore the document itself, was intended to be mandatory for bidders.

3.69 Revision J states that the: "Operational Functionality requirements for the RHSC/DCN will be outlined in the Clinical Output Specification, the Schedule of Accommodation and the Adjacency Matrix". Clinical Output Specifications provided information in relation to the scope of departments and the operational function of the individual rooms within them. The Schedule of Accommodation specified minimum floor areas. The Adjacency Matrix specified the location of certain departments in relation to other departments. Since mandatory requirements were defined as those that set out Operational Functionality, by the logic of this statement, no other documents were intended to be mandatory for bidders to comply with.

Key Stage Reviews

3.70 The project was subject to periodic Key Stage Reviews (KSRs) conducted by SFT. These were a condition of SG funding support and designed to provide an assessment of the project's readiness before moving on to the next stage of the procurement process.

3.71 KSR 1 was issued on 4 December 2012. At Section 2.7, SFT raised issues as to the extent of mandatory elements in the Reference Design and commented that clarity was required on this in the ITPD. The final position was to be reviewed as part of the Pre-ITPD KSR (KSR 2).

3.72 KSR 2 was issued on 7 March 2013. Section 2.4 of KSR 2 picked up on Section 2.7 of KSR 1 by stating that the clarity sought by SFT had been satisfied by ITPD Volume 1, Section 2.5 (Reference Design and Mandatory Reference Design Requirements) and Appendix E (Reference Design Elements). However, as will be explained below, Section 2.5.3 raised questions regarding the significance of the Environmental Matrix.

The Invitation To Participate in Dialogue (ITPD)

ITPD Volume 1

3.73 In the lead up to the ITPD, NHSL produced mock Dialogue questions. These included: “What do you mean by Operational Functionality?”, “What do you mean by Mandatory Elements of Reference Design?” and: “We don’t use ADB for Room Data Sheets, we have our own Super Duper alternative. OK to use?” The proposed answers to these questions are set out in a Project Steering Board report of 28 March 2013. The definition given for Operational Functionality reflects what is outlined in paragraph 3.78 of this paper, while Mandatory Requirements: “Comprises the information that defines Operational Functionality.” Regarding the question on ADB, the proposed response is: “This is at your risk; we would strongly advise ADB.” As discussed above, CEL 19 provided, at mandatory requirement 7, that ADB was a mandatory tool for the design of Scottish hospitals. If ABD was deemed inappropriate, and an alternative tool or approached is used, the responsibility is placed on the health board to demonstrate that the alternative is of equal quality and value in its application.

3.74 Section 2.2(b) of the BCRs placed an obligation upon the successful tenderer to ensure their design complied with CEL 19~~. No documents provided to bidders, as part of the ITPD, precluded bidders from using ADB to inform their design or from testing their proposed design against the ADB~~[1].

3.75 ITPD Volume 1 Revision A was issued on 11 March 2013. The final version, Revision B, included a definition of Operational Functionality and was issued on 17 April 2013.

3.76 The purpose of the ITPD was to describe the Board of NHSL’s needs and requirements, and set out how Competitive Dialogue would be conducted. ITPD Volume 1 contained: “background information on the Project, the conditions of participation…Draft Final Tender Requirements, envisaged Final Tender requirements”.

[1] In the alternative, is the Inquiry is not minded to delete the paragraph, Multiplex would suggest the following additional sentence be added at the end of the paragraph: "*Whilst there may have been no express statement precluding bidders testing the proposed design by reference to ADB, the documents provided to bidders set out that that the briefing tool for the environmental conditions selected by NHSL was the Environmental Matrix, not ADB sheets"*

ITPD Volume 1, Sections 2.5 and Appendix E

3.77 Section 2.5 was titled 'Reference Design and Mandatory Reference Design Requirements'. This section reiterated that the:

> "mandatory elements of the Reference Design…are those elements of the Reference Design relating to Operational Functionality. The definition used in the NPD Project Agreement is being applied to define the agreed Operational Functionality".

3.78 This definition provided that Operational Functionality meant:

- the points of access to and within the development site and the buildings;
- the relationship between buildings;
- the adjacencies between different hospital departments;
- the adjacencies between rooms within the hospital departments;
- the quantity, description and spatial areas of specified rooms;
- the location and relationship of equipment, furniture, fittings; and
- the location of and the inter-relationships between rooms within departments

but only in so far as each of these above matters related to Operational Use.

3.79 Operational Use meant the use of a room to carry out Board Services. Board Services included clinical services.

3.80 This section continued:

> "For the avoidance of doubt, the Board will not enter into any Dialogue on alternative solutions to the Mandatory Reference Design Requirements".

3.81 Section 2.5.3, titled 'Room Data Sheets', provided that:

> "Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the 'Room

Information') are detailed in the following documents:

- The Board's Construction Requirements;
- The Environmental Matrix;
- The Schedule of Operational/Design Notes;
- The Equipment Schedule;
- The Equipment Responsibility Matrix;
- The Draft Schedule of Accommodation; and
- The Operational Functionality elements of the Reference Design."

3.82 This section continued:

"Bidders will be required to develop Room Data Sheets, incorporating the Room Information".

3.83 Appendix E is titled 'Reference Design Elements' and sets out the full constituents of the Reference Design together with a note of each elements' mandatory/indicative status. However, the Environmental Matrix did not feature on Appendix E. Nor did any of the Room Information documents other than the Schedule of Accommodation. BREEAM featured as an indicative element of the Reference Design on Appendix E. However, Section 2.8 of ITPD Volume 1 provided that: "Bidder's designs must achieve, as a minimum, a 'Very Good' BREEAM rating under BREEAM 2011". Designs also had to achieve an 'Excellent' rating in accordance with BREEAM Section 6.0 ENE1. This was the provision of BREEAM 2011 that H&K advised was not practical and maybe not possible.

ITPD Volume 1, Section 2.6

3.84 Section 2.6, titled 'Indicative Elements of the Reference Design', provided that Building Services Engineering Solutions was an indicative element.

3.85 Section 2.6 provided that the: "full distinction between Mandatory Reference Design Requirements and indicative Elements of the Reference Design are set out in Appendix E". As set out in the previous paragraph, the

Environmental Matrix did not feature on Appendix E as a mandatory or indicative element of the Reference Design.

ITPD Volume 1, Appendix A (ii)

3.86 This Appendix was titled 'Submission Requirements'. Section C8.1 provided:

> "Bidders must submit proposals setting out the engineering services design for each element of the scheme in sufficient detail to demonstrate compliance with the Board's Construction Requirements."

The Board's Construction Requirements are discussed below.

3.87 Section C8.3 provided:

> "Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis".

3.88 Section C10.1 provided that bidders must submit an energy model showing how their design fulfilled an 'Excellent' rating in accordance with BREEAM Section 6.0 ENE1.

ITPD Volume 3

3.89 ITPD Volume 3 Revision A was also issued in March 2013. The final version issued to bidders was Revision C from August 2013.

3.90 ITPD Volume 3 consisted of Part 6 Section 3 Sub-Sections A to E of the Schedule to the Project Agreement, otherwise called 'the Board's Construction Requirements'. These set out the key design criteria for the project, with the successful tenderer needing to satisfy all the requirements therein.

3.91 This volume departs from the language of 'mandatory and non-

mandatory/indicative' elements and 'Operational Functionality' as used in the Reference Design and ITPD Volume 1. Instead, 'mandatory' refers to requirements contained in certain SG guidance and regulations, such as SHTM 03-01.

3.92 At the 'Definitions and Abbreviations' section, 'Environmental Matrix' is defined as meaning:

> "the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department/unit/space/area…as set out in Appendix C of this Section 3…(as varied, amended or supplemented from time to time in accordance with the Project Agreement)".

3.93 At Section 8 'Mechanical & Electrical Engineering Requirements' it is stated that:

> "Project Co shall provide the Works to comply with the Environmental Matrix."

3.94 In ITPD Volume 3, the terms of the Environmental Matrix are framed as the Board's Construction Requirements, as opposed to being 'indicative' .

3.95 Section 2.3 'NHS Requirements', provides that:

> "unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements".

These requirements include, at 2.3.v, that bidders shall:

> "in relation to all SHTM…ensure that the Facilities comply with the requirements of such SHTM…and adopt as mandatory all recommendations and preferred solutions contained in such SHTM…"

3.96 Section 2.5 'Hierarchy of Standards' provided that:

"where contradictory standards/advice are apparent…then…(1) the most onerous standard/advice shall take precedence…The Board shall be entitled to make the final decision regarding the standards/advice to be used for the Facilities..."

3.97 Section 2.3.x provided that the successful tenderer shall achieve as a minimum a 'very good' rating under BREEAM 2011 and an 'Excellent' rating in accordance with BREEAM Section 6.0 ENE1. As previously discussed, this was the provision of *BREEAM 2011* that H&K advised was not practical and may not be possible. The Final Tender of IHSL reflected compliance with the provision.

3.98 At Section 5.26 'Energy Strategy', the successful tenderer required to: "provide Facilities that…Minimise internal areas requiring mechanical ventilation". At Section 8.7.8, 'Mechanical Ventilation & Air Conditioning' the need for mechanical ventilation to maintain comfort conditions was of: "paramount importance", and was to be achieved with minimum energy consumption in mind.

3.99 Section 3.6.3, headed 'Room Data Sheets' provided that Facilities must: "as a minimum, meet all the requirements specified in the Room Data Sheets included in Schedule Part 6 Section 6."

3.100 In response to an earlier draft of this paper, MML have told the Inquiry that: "reference to RDS within Volume 3 refers to the RDS that were to be designed in the future by the Preferred Bidder. Section 2.5.3 of ITPD Volume 1 makes clear that RDS were not prepared by the Board for the project or provided to bidders."

3.101 Section 8.7.22 is titled 'Ventilation and Air Conditioning of Isolation Rooms' and provides that: "Ventilation and air conditioning systems for these room shall be designed and installed in accordance with SHTM 03-01, 04-01 and NHS Model Engineering Specification C04." This statement is ambiguous in its phrasing. SHTM 04-01 concerns the design of water systems and control of legionella. SHPN 04 Supplement 1 provides guidance on specialised

ventilation in isolation rooms. While the phrasing suggests reference to SHTM 04-01, the context indicates that the intention was to refer to SHPN 04 Supplement 1.

The Invitation to Submit Final Tender (ISFT)

3.102 On 16 December 2013, the Invitation to Submit Final Tender (ISFT) Volume 1 Revision A was issued. This was the final version issued to bidders.

3.103 In their final tender submission, one of the two unsuccessful bidders flagged air changes per hour and pressure regime data in the Environmental Matrix that was inconsistent with healthcare guidance.

The Preferred Bidder's Final Tender

3.104 In their Final Tender submission of 13 January 2014, IHSL confirmed that the:

> "mechanical and electrical services shall be provided in accordance with the reference design environmental matrix and we shall provide an addendum matrix for any rooms on an exception basis highlighting any changes at preferred bid stage."

3.105 The same document provided that: "air change rate…shall be in accordance SHTM-03". This was also reflected in IHSL's specification brief provided to the M&E sub-contractor to implement the design. The sub-contractor was to provide a ventilation system in accordance with: "all appropriate Hospital Technical Memoranda" and the documentation listed at Appendix A of the brief. This included the ITPD Documentation, which included the Environmental Matrix.

3.106 IHSL also set out in the Final Tender their intention to proceed with a mixed mode, natural and mechanical, ventilation strategy in light of experiences from the adjacent ERI, which allowed a maximum internal temperature of 25°C. The Final Tender also refers to 4 ACH for bedrooms and ward areas.

4. Practical Implications for the RHCYP/DCN Project arising from the adoption of the Reference Design Approach

4.1 A Project Dashboard report of 13 May 2011 provided that the Design Team: "produced a programme showing a 12 month duration to complete the Reference Design based on the schedule of deliverables issued via NHSL…and on three rounds of consultation meeting with the clinical staff". This was reviewed. It was: "looked at in order to reduce the timescale to an eight month period, one agreement being that clinical consultation will be reduced to two rounds".

4.2 This Dashboard report was tabled and discussed at a Project Board meeting of 13 May 2011. It was noted that the programme outlined was unacceptable to NHSL, SFT and SGHD given the estimated slippage in operational date from the previous capital funded project. It was further noted that the: "Reference Design Phase whilst already reduced to two rounds of clinical interface at each design stage is to be reviewed again with a view to shortening it as far as practically possible".

4.3 SG policy set out in CEL 19 provided that: "the client must…not allow design time to be squeezed in order to recover time lost in the programme for other reasons".

4.4 In the same Project Board meeting of 13 May 2011: "SFT and SGHD expressed a strong view that the period indicated for 'Competitive Dialogue' did not reflect the production of a reference design and was based on an exemplar design. This period, in their view, needs review with a considerable reduction in duration likely."

4.5 At a Project Steering Board meeting of 9 November 2012: "SFT reiterated the need to create an attractive as possible proposition to the market given the current economic situation. SFT continued that…there was an ever more pressing need to shorten the Competitive Dialogue process. The use of a

Reference Design…should, in SFT's view, allow such a compression… MB [SG Deputy Director (Capital and Facilities) Mike Baxter] commented that Scottish Government's view was that of SFT's and that there is an established general market view prevailing that the current procurement programme for this project is too long causing difficulties when considering bid intentions." After much debate, NHSL, SFT and SGHD unanimously agreed to shorten the period for Competitive Dialogue from 209 days to 155 days. The Evaluation duration was also shortened from 75 days to 39 days. This was despite the Project Team having a number of concerns about the programme, given the complexity of the project. In July 2013, changes were made to the design brief for bidders following approved derogations from the provision of single room accommodation in DCN Acute Care. On 10 July 2011, the Project Steering Board agreed to lengthen Competitive Dialogue phase by eight weeks to give bidders more time to develop compliant designs.

4.6 Revision J of the Approach to Reference Design paper refers to practical implications of the Reference Design approach on the Reference Design Team. According to Revision J, the Reference Design Team were ring fenced for Reference Design development so they could be released to join bidding teams during the procurement stage. The Inquiry Team understand this solution was formulated in response to concern in June 2011 around the ability of Reference Design Team members to join bid teams. An email exchange on 24 June 2011 between NHSL Project Director Brian Currie and Associate Director of SFT Andrew Bruce suggests that Nightingale Associates and BMJ Architects threatened to withdraw from the Reference Design process if they could not bid for the project. The potential implications of this for the project timescale created significant concern.

4.7 According to Revision J, ring fencing the Reference Design team meant there was complete separation between the Technical Advisory Team (involved in the development of procurement and contract documents) and the Reference Design Team (engaged at arm's length to develop the Reference Design).

4.8 Revision J outlines that a Design Manager was appointed to provide the linkage so that the Reference Design Team prepared a solution that was

consistent with that required by the Technical Advisory Team, without giving the Reference Design Team any understanding or involvement in the development of the procurement and contractual elements of the project. The Inquiry Team understands that David Stillie of MML was appointed to this role as Design Manager Architect and Thomas Brady of Davis Langdon as Design Manager M&E.

4.9 Revision J explained that, as the Reference Design Team were not to be retained by NHSL during the procurement period, it was envisaged that the Reference Design would be handed over to the Technical Advisory Team and actions would be taken to cover for the fact that the Reference Design Team would not be available to address queries during the procurement process.

4.10 It was proposed in Revision J that the Technical Advisory Team would need to take ownership of the design as if it was its own work. This would entail the two teams meeting regularly and the Technical Advisory Team undertaking a thorough and detailed review of the Reference Design.

4.11 In response to an earlier draft of this paper, MML have told the Inquiry that: "Prior to the Reference Design team's departure from the project, MML sought assurance that the Reference Design had been developed in compliance with applicable guidance." On 28 February 2012, Andy Duncan of MML wrote to Thomas Brady of Davis Langdon to seek this assurance. The email stated:

> "There is an action on the Reference Design Team to confirm that the Reference Design complies with NHS Guidance and key legislation. I attach the requirement schedule for each of the Reference Designers to respond to. We require a statement from each designer to confirm that the Reference Design complies with the Requirements Schedule. Should it not fully comply then each designer shall confirm that the Reference Design complies with the Requirements Schedule with a schedule of derogations. We will need the compliance statement from the Reference Designers before they leave the project to work for potential bidders."

4.12 On 16 March 2012, Nightingale Associates, BMJ Architects, H&K and Arup issued a joint statement in response to this email: "relating to compliance

generally and derogations." The document stated:

> "issues relating to compliance shall only be relevant in so far as the proposals have generally been required to be developed to an equivalent level of RIBA Stage C."

Beneath the heading 'Reference Design Compliance Statement Requirement', the following text appears:

> "Health Technical Memoranda and Scottish Health Technical Memoranda - We have followed SHTMs and also HTMs when there is no Scottish equivalent."

A full list of derogations is then included in the letter. There are no derogations relating to SHTM 03-01.

4.13 The Inquiry Team understands that this was the only occasion where environmental information within the Reference Design was officially reviewed and signed-off for compliance with healthcare guidance.

4.14 Concern around the ability of NHSL to technically evaluate bids when the Reference Design Team departed was raised by Associate Director of SFT Donna Stevenson in the meeting of 26 April 2012 between SFT and NHSL, where the Approach to Reference Design paper was discussed in detail. NHSL's response to the specifics of this point are not available. However, in an email from NHSL Project Director Brian Currie to Donna Stevenson on 16 May 2012, Mr Currie stated:

> "Draft Evaluation criteria/ final submission requirements and scoring approach have now been prepared following workshops with Strategic (24/04) / FM (27/03) and D&C (0/4 & 01/05) work streams. To be presented to PME 24/5 before going to SFT for comment and NHSL Senior Management for final approval. Interim submission requirements being developed in parallel."

4.15 NHSL also: "received no correspondence recommending adjustment to this report [the Approach to Reference Design paper] or its recommendations from SFT."

4.16 The Inquiry Team understands that once Reference Design work was completed, and Davis Langdon left the project, the project management function transferred to MML, who were the only technical advisers working on the project. This is also the position adopted by the authors of the Grant Thornton Report, which reviewed the governance and internal controls over the RHCYP/DCN project, and whose findings were accepted by NHSL.

4.17 On 8 April 2013, NHSL provided an update on requirements for Operational Functionality. The update stated: "Through Dialogue Meeting 1 it became evident that the understanding of Operational Functionality required further clarification. Feedback was given to Bidders on their specific proposals."

4.18 At a Project Steering Board meeting of 10 July 2013, the Project Steering Board were reminded that: "the project team have communicated previously growing concern of the inadequacies of the programme to deal with the level of design development necessary for a major acute health facility regardless of the availability of a 'Reference Design'".

4.19 The minutes of a Special Project Steering Board on 22 August 2014 record that Mike Baxter (SG Deputy Director, Capital and Facilities): "asked if there was a common understanding of the requirements to sign off operational functionality and BC [Brian Currie of NHSL] responded that he didn't think this was the case". IHSL advised that they were being asked to deliver much more than on other projects, and: "considerably more than was required for comfort of Operational Functionality".

4.20 In September 2014, IHSL's own Environmental Matrix was produced by Wallace Whittle (now part of TUV SUD UK Ltd), reflecting the ITPD Environmental Matrix.

4.21 The Board of NHSL commented on this in October 2014, noting for what appears to be the first time the discrepancy between the ACH for single bedrooms within the Environmental Matrix and those required by SHTM 03-01. Wallace Whittle advised what was being provided was a mixed mode system, with 4 mechanical air changes complying with the Environmental Matrix and providing physiological and energy benefits ~~IHSL advised this was~~

~~intentional - the 4 ACH referred to mechanical ventilation only, and was intended to be supplemented by 2 ACH of natural ventilation from openable windows~~. IHSL believed this was what the Reference Design demanded, and this strategy was reflected in an Air Movement Report for Single Bedrooms produced by Wallace Whittle.

At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode", 4 Mechanical AC, for Bedrooms

4.22 Mr Ian Stewart, of NHS NSS, advised Janette Richards (NHSL's Lead HAISCRIBE Infection Prevention and Control Nurse) that he was:

"…surprised at reference to the use of openable windows. This could lead to ingress of unfiltered air or egress of infectious air that could find its way to a nearby openable window (whether or not in an isolation room) or to a nearby air intake. In short, have sealed windows as this will enable air flow patterns to be controlled."

At a Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) ("HAI-Scribe") meeting held on 19 November 2014, in response to the questions, "*Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems*" it was noted: "*Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bedrooms. Awaiting drawings and further information to fully understand if this is a risk/issue"*

4.23 In January 2015, the Board of NHSL confirmed to MML that: "the design solution should not rely in any way with the opening windows". This was almost five years after H&K first outlined that the design would be supplemented by opening windows, a strategy reflected at Guidance Note 14 of the first Environmental Matrices of 2010 – which formed the basis of the Environmental Matrix later supplied to prospective tenderers. A ventilation design supplemented by opening windows was also investigated by H&K as part of their 2012 Ward Room Thermal Room Comfort Analysis.

On 13 January 2015 a meeting was held between NHSL, Mott MacDonald, Multiplex and Wallace Whittle, at which the ventilation regime for the single bedrooms was discussed. An "*Air Movement Report for Single Bedrooms*" produced by Wallace Whittle was tabled and discussed at the meeting.

Following the meeting on 13 January 2015 Multiplex sought confirmation from NHSL in relation to their requirements for the regime within single bedrooms based on NHSL's review with infection control

NHSL's requirements were confirmed as being for there to be balanced pressure in the single bedrooms, as opposed to the positive pressure shown in the Reference Design Environmental Matrix. The Environmental Matrix was accordingly changed, and the Environmental Matrix incorporated in the Project Agreement at Financial Close required balanced pressure in the Single Bedrooms.

4.24 At Financial Close in February 2015, the Environmental Matrix was listed as Reviewable Design Data not approved by the Board and had to be re-submitted incorporating the Board of NHSL's comments under the Schedule Part 8 (Review Procedure) of the Project Agreement between NHSL and IHSL. None of the comments from the Board of NHSL at Financial Close related to ACH within the Environmental Matrix.

The Environmental Matrix was reviewed and discussed between NHSL, Mott MacDonald and IHSL during the preferred bidder period. A specific design review meeting was held on 11 November 2014 to review NHSL's comments on the Environmental Matrix. Notes of the meeting were issued by Mott MacDonald. A comment was made in relation to achieving "*balanced/negative pressure relative to corridor*" in relation to bedrooms. No comments were made in relation to the Air Change Regime in the bedrooms. These notes formed the basis of NHSL's RDD comments in in Section 5 of Schedule Part 6 of the Project Agreement at Financial Close

4.25 ~~Despite the decision of the Board in January 2015 regarding single bedroom ventilation, and the categorisation of the Environmental Matrix as Reviewable Design Data in February 2015, the single bedroom ACH figures reliant on supplementary natural ventilation were not amended by IHSL in a later~~

~~Environmental Matrix of 26 November 2015~~.

5. Provisional Conclusions

5.1 As outlined at the start, this paper seeks to set out the Inquiry Team's current understanding of the Reference Design adopted for the Project. It is provisional in nature. The paper does not constitute any findings of the Chair of the Inquiry. It is open to any CP to seek to correct and/or contradict the contents of the paper. However, unless that is done, in addition to such other findings in fact that Counsel considers appropriate, the Chair is likely to be invited by Counsel to the Inquiry to make the following findings in fact at the conclusion of the hearing scheduled for April 2023:

5.1.1 Prior to 17 November 2010, the project to replace the RHSC was proceeding as a capital funded project.

5.1.2 A team of technical advisers had been appointed by NHSL and significant design work had been undertaken.

5.1.3 On 17 November 2010, SG decided to change the funding structure of the RHSC project to an NPD funding model. NPD funding involves private finance being utilised for public sector projects with returns to the private sector being set at a capped level.

5.1.4 At the same point as the change in funding model, a decision was taken that the DCN should be co-located with the RHSC to form the combined RHCYP/DCN project.

5.1.5 SFT was responsible for assisting public sector bodies in Scotland with NPD projects.

5.1.6 NHSL determined that a 'Reference Design' should be utilised for the RHCYP/DCN project. This was intended to be shared with prospective tenderers in the procurement process and used as a foundation and framework for bidders to develop the design subject to compliance with the Board's Construction Requirements. ~~as a springboard for bidders to develop their own designs~~.

5.1.7 A ‘Reference Design’ mandates elements that a tenderer must comply with. It can be contrasted with an ‘Exemplar Design’ which is but one potential design option and tenderers are given greater latitude to develop designs.

5.1.8 Historically, Exemplar Designs had been used for Public Private Partnership projects in Scotland.

5.1.9 NHSL, SFT and SGHD supported shortening the programme for producing the Reference Design as far as practically possible.

5.1.10 NHSL, SFT and SG wished to shorten the programme to avoid the potential for slippage in the project arising from the change in funding model.

5.1.11 NHSL had responsibility for determining the detail to be included within the Reference Design and, in particular, the elements with which compliance was mandatory.

5.1.12 CEL 19 provides guidance on the approach NHS Scotland bodies should adopt when designing a new hospital.

5.1.13 CEL 19 mandated that all NHS Scotland Bodies use the English Department of Health’s Activity Data Base (ADB) as a tool for briefing, design and commissioning. Where ADB was deemed inappropriate for a particular project, and an alternative tool was used, the NHS Scotland Body was required to demonstrate that the alternative was of equal quality and value to ADB in its application.

5.1.14 ADB would automatically comply with guidance and legislation applicable in England. The NHS Scotland body would need to ensure compliance with Scottish guidance, including SHTMs.

5.1.15 CEL 19 provides that design time must not be squeezed to recover time lost in a project for other reasons.

5.1.16 NHSL did not use ADB as a tool for the briefing and design stages relating to the environmental information for the RHCYP/DCN project.

5.1.17 The Inquiry has seen no documentation demonstrating: (i) why NHSL determined to deviate from using ADB; and (ii) why it considered that the alternative approach that it adopted was of equal quality and value to ADB.

5.1.18 The original Reference Design Team, in place when the project was to be capital funded, was retained by NHSL for the NPD project.

5.1.19 Members of the Reference Design Team were permitted to join a team tendering for the project.

5.1.20 The Reference Design Team were ring fenced and only dealt with the development of the design itself. The Reference Design Team were not involved in the development of the procurement documents or the contractual documents.

5.1.21 The services of the Reference Design Team were dispensed with by NHSL prior to the commencement of the procurement exercise. Accordingly, the Reference Design Team were not available to assist NHSL, or its technical advisers, during the procurement process.

5.1.22 Responsibility for the Reference Design was passed to the Technical Advisory Team when the Reference Design Team left the project.

5.1.23 Prior to the departure of the Reference Design Team, MML sought an assurance from the team that the Reference Design was compliant with NHS Guidance and appropriate legislation.

5.1.24 The Reference Design Team issued a joint document in response, stating that SHTMs (and HTMs where there was no Scottish equivalent) had been followed in producing the Reference Design.

5.1.25 This was the only occasion, prior to the conclusion of the contract with the preferred bidder, where ‘environmental information’ set out in the Reference Design concerning the proposed ventilation system for the hospital – including air changes per hour and pressure regimes - was formally reviewed and signed-off for compliance with healthcare guidance.

5.1.26 H&K produced an 'Environmental Matrix' for the project on 9 September 2010. This set out a range of environmental information including details of air changes per hour (ACH) and pressure regimes for various areas of the hospital. This formed the basis of a later Environmental Matrix produced by H&K, dated 19 September 2012, which was issued to prospective tenderers with the ITPD.

5.1.27 The Environmental Matrices stated that the document was an easier reference tool to replace 'ADB RDS M&E' Sheets.

5.1.28 There is currently no material available to the Inquiry indicating that the Environmental Matrices were produced using ADB.

5.1.29 On 2 June 2011, the Board of NHSL, with assistance from MML, decided that the Reference Design would set mandatory requirements in relation to 'Clinical Functionality'. This was later redefined as 'Operational Functionality'. Environmental information had not been included in the definitions of 'Clinical Functionality' or 'Operational Functionality'.

5.1.30 The Environmental Matrix of 19 September 2012 was provided to prospective tenderers as part of the ITPD.

5.1.31 The Environmental Matrix provided with the ITPD contained environmental information that was inconsistent with healthcare guidance, namely SHTM 03-01, which outlines ventilation requirements in a hospital. In particular, values inserted in the Environmental Matrix for certain critical care areas did not comply with the guidance in SHTM 03-01.

5.1.32 ITPD Volume 1, Section 2.5.3 stated that tenderers were required to use the Environmental Matrix, and other 'Room Information' documents, to form the basis of Room Data Sheet production.

5.1.33 ITPD, Volume 3, Section 2.3 required tenderers to comply with SHTMs.

5.1.34 ~~There was a lack of clarity in the procurement documents in relation to: (i) the purpose of the Environmental Matrix; and (ii) whether compliance with the Environmental Matrix was mandatory~~.

5.1.35 IHSL did not seek to change any of the values set out in the Environmental Matrix when it submitted its final tender.

5.1.36 One tenderer did seek to change values set out in the Environmental Matrix in its tender.

5.1.37 In October 2014, ACH for single bedrooms within IHSL's Environmental Matrix was flagged by the Board of NHSL as potentially non-compliant with SHTM03-01.

5.1.38 ~~This was disputed by IHSL~~. Wallace Whittle~~IHSL~~ maintained that it was proposing a mixed mode ventilation system – comprising of natural ventilation and mechanical ventilation - which complied with ~~SHTM03-01~~the Board's Construction Requirements.

5.1.39 NHS NSS corresponded with NHSL in relation to this dispute and expressed surprise that NHSL was considering having openable windows as part of the ventilation system.

At a HAI-Scribe meeting held on 19 November 2014, concerns were raised in relation to the pressure regime in single bedrooms

5.1.40 ~~In January 2015, the Board of NHSL determined that there should be no openable windows in the RHCYP/DCN~~.

5.1.41 ~~This was not reflected in IHSL's Environmental Matrix submitted as part of its final tender~~.

It was never communicated to IHSL that NHSL had determined, in January 2015, that there should be no openable windows in the RHCYP/DCN. It was communicated by email from MML dated 29 January 2015 that the design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice. That email was issued by MML in response to a request for clarification on the negative/positive pressure regime within the bedrooms.

The Environmental Matrix included in the Project Agreement at Financial close was changed such that it showed balanced pressure in the single bedrooms, as opposed to the positive pressure shown in the Reference Design Environmental Matrix. The Air Change Rates for the Single Bedrooms remained at 4 mechanical AC in the Environmental Matrix.

At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode" and 4 Mechanical AC for the Bedrooms

5.1.42 ~~Notwithstanding this disconnect between what the Board of NHSL wished and the solution being offered by IHSL, NHSL did not insist on any changes being made to IHSL's tender (including the Environmental Matrix submitted by IHSL) before a contract was signed~~[2].

A specific design review meeting was held on 11 November 2014 to review NHSL's comments on the Environmental Matrix

5.1.43 NHSL entered into a contract with IHSL which stipulated that the Environmental Matrix would be 'Reviewable Design Data' under the contract.~~-~~ ~~Therefore, the precise parameters for the ventilation system would be worked out after the contract was concluded~~. NHSL's comments on the Environmental Matrix at Financial Close were recorded in Section 5 of Schedule Part 6 of the Project Agreement. No comments were made in relation to the Air Change Regime in the Bedrooms.

[2] If the Inquiry is not minded to delete this paragraph, then Multiplex would ask it be amended as follows:-

"~~*Notwithstanding this disconnect between what the Board of NHSL wished and the solution being offered by IHSL,* NHSL did not insist on any changes being made to IHSL's tender (including the Environmental Matrix submitted by IHSL)~~ ***in relation to the air change rates to be provided*** *before a contract was signed. NHSL did request a change to the Environmental Matrix in relation to the pressure regime.* ***The Environmental Matrix at Financial Close was updated to reflect this showing balanced pressure rather than the*** **pressure** ***show in the Reference Design Environmental Matrix***"

Scottish Hospitals Inquiry – Provisional Position Paper 2
Multiplex Construction Europe Limited – Response
3 February 2023

1 Introduction

1.1 The following is a response by Multiplex Construction Europe Limited ("**Multiplex**") to the Public Inquiry's Provisional Position Paper 2, title: *"The Environmental Matrix for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences",* issued by the Inquiry by e-mail dated 10 December 2022 (timed at 10.18) ("**PP2**").

1.2 Multiplex note the terms of the email issuing PP2, together with page 1 of PP2 where the Inquiry invites Core Participants to submit corrections and/or contradict to the content of the paper. Multiplex is grateful for this opportunity and at this stage, to assist the Inquiry, Multiplex would make the following submissions.

1.3 For the benefit of the Inquiry, Multiplex has included as Schedule 1 to this submission a track change version of PP2 showing its proposed corrections/additions.

2 Mandatory Nature of Environmental Matrix

2.1 Multiplex would direct the Inquiry to Section 2 of its Response to Provisional Paper 1("PP1") which also addresses the mandatory nature of the Environmental Matrix.

2.2 For the reasons explained in its Response to PP1, Multiplex do not consider the provisional conclusion at 13.1.25 of PP2 is factually accurate, namely that:

> *"There was a lack of clarity in the procurement documents in relation to: (i) the purpose of the Environmental Matrix; and (ii) whether compliance with the Environmental Matrix was mandatory"*

and respectfully invite the Inquiry to delete this paragraph.

2.3 The Environmental Matrix was provided to bidders on the basis that it replaced ADB RDS M&E Sheets for the mechanical & electrical engineering ("M&E") design and was the document that set out the room environmental condition requirements of the Board within each area, which Project Co was to provide. Bidders were expressly required to confirm acceptance of the Environmental Matrix and any changes to it were only to be proposed on an exception basis. Multiplex therefore do not consider it is correct that there was a lack of clarity. The purpose of the Environmental Matrix was to provide the Board's environmental requirements and compliance with it was mandatory as part of the Board's Construction Requirements.

2.4 Multiplex would also refer the Inquiry to the text of paragraph 10.12 of PP2, which records Section C8.3 of the ITPD where the Board advised bidders that (our emphasis):

> *"Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation.* ***Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis".***

2.5 We would also refer to paragraph 10.13 and 10.14 of PP2, which notes that the Board's Construction Requirements, both those provided to bidders and those incorporated in the final contract at Financial Close,

defined the "Environmental Matrix" as being: *"the room environmental condition requirements of the Board within each department/unit/space/area…."* With Section 8 then requiring that:

> *"Project Co shall provide the Works to comply with the Environmental Matrix."*

2.6 Multiplex would also refer to the Inquiry's provisional conclusion at 13.1.12 which states that:

> *"The environmental matrix stated that the document was an easier reference tool to replace 'ADB RDS M&E' Sheets"*

2.7 Multiplex respectfully submit that the factual position outlined above does not align with paragraph 13.1.25 of PP2. Multiplex considers that the procurement documentation made clear that the Environmental Matrix set out the environmental conditions the Board required in each space and the Board's requirement that bidders did not depart from these.

2.8 Accordingly for the reasons outlined above, Multiplex would respectfully invite the Inquiry to delete paragraph 13.1.25 of PP2.

2.9 And that the following take the place of paragraph 13.1.25 of PP2:

> *In ITPD Volume 3 Part 6, the terms of the Environmental Matrix are framed as the Board's Construction Requirements. It was defined as being: "the room environmental condition requirements of the Board within each department/unit/space/area…."* (Reflecting the Inquiry's text of paragraph 10.13 and 10.14 of PP2)

3 Use of the Environmental matrix

3.1 Multiplex note that the first sentence of paragraph 5.10 of PP2 records NHSL's position that:

> *"NHSL maintains that tenderers required to produce room data sheets using ADB and to ensure compliance with CEL 19 and published guidance including SHTM03-01"*

3.2 Multiplex would respectfully request that its position also be similarly recorded in PP2. Multiplex's position being that tenderers were (initially) required to produce Room Data Sheets incorporating the Room Information (which was a defined term and included the Environmental Matrix).

3.3 In relation to compliance with SHTM03-01 Multiplex would refer the Inquiry to Section 2 of its November 2021 Submission (included again for ease as Appendix 01). In summary, the documentation provided with the ITPD advised that the successful bidder was required to meet the Board's Requirements, and the design of the ventilation systems was to comply with SHTM 03-01, except where a differing requirement was expressed by NHSL. Reference is made to Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD (Appendix 02) our emphasis:

> *"Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…**except to the extent expressly stated to the contrary in the Board's Construction Requirements** or the Service Level Specification, in compliance with all applicable NHS Requirements"*

3.4 NHSL's Requirements were defined as follows: *"means: (a) in relation to the Works, Health Building Notes and Health Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements"* .

3.5 This position was confirmed in paragraph 2.3 of the Board's Construction Requirements provided as Volume 3 Part 6 of the ITPD (our emphasis):

> *"In addition to the standards listed in paragraph 2.4 of this Sub-Section C,* ***unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement****, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:*
>
> *…*
>
> *h) HTM and SHTM;"*

3.6 In relation to the use of ADB and compliance with CEL 19, ADB is a briefing tool used by Health Boards. This is reflected in the Inquiry's text at paragraph 3.4 of PP2:

> *"The Design Quality Policy also contains a section entitled 'Activity DataBase (ADB)' which states that:*
>
> > *"Activity DataBase (ADB) is the briefing, design & commissioning tool for both new-build and refurbishment of healthcare buildings. It is a briefing and design package with an integrated textual and graphical database, an interface with AutoCAD and an extensive graphical library - the complete tool for briefing and design of the healthcare environment. ADB is produced by the Department of Health in England and is mandated for use in Scotland by the Scottish Government Health Directorates as the preferred briefing and design system for NHSScotland (see Mandatory Requirement 7 of this Policy). It has been developed to assist in the construction, briefing development, design and alteration of healthcare facilities."*

3.7 The decision to use or not use ADB to brief the project, and compliance with CEL 19 was matter for NHSL, not prospective tenderers, this is noted by the Inquiry at para 3.5 of PP2:

> *"A responsibility was therefore placed on NHSL to utilise ADB, or an equivalent tool, for the briefing, design and commissioning of the hospital. If NHSL determined that the ADB system was inappropriate for the RHCYP/DCN project as a briefing, design and/or commissioning tool, an obligation was placed on NHSL to demonstrate that the alternative tool adopted was of equal quality and value to the ADB system"*

3.8 As the Inquiry note at paragraph 13.1.12 of PP2; *"the environmental matrix stated that the document was an easier reference tool to replace 'ADB RDS M&E' Sheets".*

3.9 Further, as noted above, the documents provided as part of the ITPD expressly required that the bidders design comply with the Board's Requirements and defined the Environmental Matrix as setting out, "*the room environmental condition requirements of the Board within each department/unit/space/area….".*

3.10 Accordingly, it was not open to tenderers to disregard the environmental information in the Room Information. On the RHSC project NHSL decided that the briefing tool for the environmental conditions was the Room Information, which included the Environmental Matrix.

3.11 This was confirmed by paragraph 2.5.3 of Volume 1 of the ITPD, where NHSL confirmed to bidders that Room Data Sheets were to be developed using the Room Information:

> ***2.5.3 Room Data Sheets***
>
> *Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the "**Room Information**") are detailed in a combination of the following documents:*
>
> - *The Board's Construction Requirements;*
> - *The Environmental Matrix;*
> - *The Schedule of Operational/Design Notes;*
> - *The Equipment Schedule;*
> - *The Equipment Responsibility Matrix;*
> - *The Draft Schedule of Accommodation; and*
> - *The Operational Functionality elements of the Reference Design.*
>
> *During Dialogue Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings have been prepared. For the avoidance of doubt this shall include all Key Rooms and Generic Rooms in addition to those rooms identified in the table at paragraph 2.5.2 above. The Room Data Sheets will form part of the Bidders proposals. The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close.*

3.12 This is reflected in the Inquiry's provisional conclusion at paragraph 13.1.24 PP2:

> *"ITPD Volume 1, Section 2.5.3 stated that tenderers were required to use the environmental matrix, and other 'Room Information' documents, to form the basis of Room Data Sheet production."*

3.13 Multiplex respectfully submit that the position outlined above does not align with the position advanced at paragraph 5.10 PP2, and would respectfully ask that the following be added after the current paragraph 5.10 PP2:

> *"Multiplex maintains that tenderers were required under ITPD Volume 1, Section 2.5.3 to produce Room Data Sheets incorporating the Room Information and that in relation to the environmental information contained in the Room Data Sheets, tenderers were required to use the Board's specific requirements provided for in the Environmental Matrix"*

3.14 Multiplex would also respectfully ask that:

- The following be added after the current paragraph 10.12 PP2:

> "Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD stated: *"Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…except to the extent expressly stated to the contrary in the Board's Construction Requirements or the Service Level Specification, in compliance with all applicable NHS Requirements"*. NHS Requirements was defined as follows: *"means: (a) in relation to the Works, Health Building Notes and Health Technical Memoranda and such other*

requirements as are designated as NHS Requirements in the Board's Construction Requirements"

- The following be added to the start of the current paragraph 10.14 PP2:

  Paragraph 2.3

  "In addition to the standards listed in paragraph 2.4 of this Sub-Section C, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:
  …
  h) HTM and SHTM;"

4 Room Data Sheets

4.1 At paragraph 12.59 of PP2, the following text is set out:

> *"The Inquiry Team understands that the draft room data sheets dated 18 September 2014 were included in the Project Agreement as Schedule Part 6 (Construction Matters) section 6 (Room Data Sheets) and that these had not yet been approved by the Board of NHSL as they were included in Part 3 of the RDD Schedule which included Reviewable Design Data 'not provided to the Board nor approved by the Board at Financial Close'. The draft RDS appears to replicate the environmental data contained in the EM, which contains potential discrepancies when compared to SHTM 03-01"*

4.2 Multiplex would respectfully seek to supplement this text to include reference to the fact the Room Data Sheets were produced in conjunction with NHSL and their technical advisors during the preferred bidder period and were reviewed by them prior to Financial Close.

4.3 By way of example Multiplex would refer to the following:

- Minutes of Project Management Group Meeting, dated 27 August 2014, item 1.2 noting an action with NHSL to *"review and respond to next iteration of RDS template*" (Appendix 03).

- Email from Multiplex to Mott MacDonald dated 10 September 2014, providing the list of RDS which would be provided at Financial Close for review (Appendix 04)

- Minutes of PDG Meeting dated 12 September 2014, item 2.1 noting that the RDS list was with NHSL for review, with NHSL's comments to be forwarded shortly. (Reflected in the Inquiry's provisional finding at para 12.5 PP2)

- Email from Mott MacDonald to Multiplex and NHSL, providing comments on the proposed RDS to be provided at Financial Close (Appendix 05)

- Design Steering Group Action Tracker, issue date 24 September 2014 (Appendix 06), Item 05 noting that the content of the RDS has been agreed and that they had been issued for review.

- Minutes of Project Management Group Meeting, dated 01 October 2014, item 2.2 noting a review of RDS to be undertaken by NHSL's Janice Mackenzie (Appendix 07)

4.4 On 19 September 2014, the Room Data Sheets for Financial Close were provided to the Board, for formal review and sign off. The expectation being, as per the terms of the covering submittal, that these would be formally signed and returned as status A (Appendix 08).

4.5 On 22 January 2015 Multiplex requested formal approval prior to Financial Close. On 27 January 2015, Mott MacDonald replied advising that, notwithstanding their agreement as to the number of RDS sheets which would be provided at Financial Close, the RDS were to be reviewed as part of the Review Procedure post Financial Close (Appendix 08).

4.6 At the PDG Meeting of 27 October 2014 (Appendix 09), it is then noted at item 5.6 that the RDS and Environmental Matrix are to be added to the Completion Criteria. This is reflected in paragraph 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the final Project Agreement, which state:

> 2.1.4: "*All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets*"
>
> 2.1.32: "*Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix*"

4.7 In light of the above, Multiplex consider the current text in PP2 should be supplemented as follows:

- The following to be added after the current paragraph 12.3 PP2:

  "The minutes of Project Management Group Meeting, dated 27 August 2014 also note at item 1.2 an action with NHSL to "review and respond to next iteration of RDS template"

- The following to be added after the current paragraph 12.6 PP2:

  On 19 September 2014, the Room Data Sheets for Financial Close were provided to the Board, for formal review and sign off.

  The Design Steering Group Action Tracker, issue date 24 September 2014, recorded at item 05 that the content of the RDS has been agreed with the Board and that they had been issued for review.

  Minutes of Project Management Group Meeting, dated 01 October 2014, note at item 2.2 that a review of RDS was to be undertaken by NHSL's Janice Mackenzie.

  At the PDG Meeting of 27 October 2014 it is noted at item 5.6 that the RDS and Environmental Matrix were to be added to the Completion Criteria.

- The following amendments (shown in red text and strikethrough) to be made to the current paragraph 12.59 of PP2:

"The Inquiry Team understands that the draft room data sheets dated 18 September 2014 were included in the Project Agreement as Schedule Part 6 (Construction Matters) section 6 (Room Data Sheets) and that these had ***been reviewed and agreed but had*** *not yet been* ***formally*** *approved by the Board of NHSL as they were included in Part 3 of the RDD Schedule which included Reviewable Design Data* ~~*'not provided to the Board nor approved by the Board at Financial Close'*~~*. The draft RDS appears to replicate the environmental data contained in the EM, which contains potential discrepancies when compared to SHTM 03-01"*

- The following to be added after the current paragraph 12.73:

At Financial Close, paragraph 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, required:

2.1.4: "All mechanical and electrical Plant and systems shall be tested, commissioned and operate
satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets"

2.1.32: "Project Co shall provide Environmental Matrix including Commissioning data test sheets
as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix".

- The following to be added after the current paragraph 13.1.33:

"The Room Data Sheets produced were reviewed by the Board and their advisors prior to Financial Close"

4.8 Finally, in relation to the production of the Room Data Sheets Multiplex notes at paragraph 12.60 PP2 that the following is stated:

It is not clear to the Inquiry Team how these discrepancies could have arisen if room data sheets, showing room environmental data, were produced using ADB. The procedure for the creation of IHSL's room data sheets will require to be explored with witnesses at the hearing diet in April 2023, In particular, whether room data sheets were produced to comply with the values set out in the EM rather than published guidance and, if so, why this procedure was adopted and why it was deemed acceptable by NHSL.

4.9 As outlined above, the Room Data Sheets were prepared using the environmental information in the Environmental Matrix, which was part of the Room Information prescribed by NHSL and both the Environmental Matrix and the Room Data Sheets were reviewed by NHSL and their representatives prior to Financial Close.

4.10 For completeness, Multiplex would also refer to the obligation imposed on IHSL in Schedule Part 10, Appendix B, paragraph clause 2.1.31 of the Project Agreement at Financial Close (our emphasis):

"Project Co shall provide completed Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) for all rooms and areas within the Facilities ***including the environmental data contained in the Environmental Matrix.*** *These Room Data Sheets shall be complete in all respects"*

5 Ventilation discussions prior to Financial Close

5.1 Multiplex do not consider that paragraph 13.1.39, 13.1.40 and 13.1.41 of PP2 are accurate, namely that:

> *"In January 2015, the Board of NHSL determined that the ventilation design for single bedrooms should not rely on openable window"*
>
> *"This was not reflected in IHSL's environmental matrix submitted as part of its final tender"*
>
> *"Notwithstanding this disconnect between what the Board of NHSL wished and the solution being offered by IHSL, NHSL did not insist on any changes being made to IHSL's tender (including the environmental matrix submitted by IHSL) before a contract was signed.*

5.1 In this regard Multiplex would refer to Section 5 of their Response to the Public Inquiry's Provisional Position Paper 1, title: *"The Reference Design utilised for the Royal Hospital for Children and Young People and Department for Clinical Neurosciences",* ("**PP1**") which considers similar provisional conclusions by the Inquiry in that Paper.

5.2 Multiplex would also refer the Inquiry to their Response to the Inquiry's Research Paper dated 29 July 2022 (included again as Appendix 10 for ease) and the documents referred to therein. In particular, paragraph 2.1.4 of Multiplex's response, which explains that (as far as it was communicated to Multiplex) the general statement that the design should not rely on openable windows was made in relation to ongoing discussion regarding the pressure regime for single bedrooms, not the air change rate regime. As is noted at paragraph 2.1.4.10 and 2.1.4.11 of Multiplex's response, the email issued by Mott MacDonald on 29 January 2015 was in response to Multiplex's request for information dated 19 January 2015 regarding, *"clarity on the negative/positive pressure regime within the bedrooms".*

5.3 Multiplex understand that the issues raised at the time during the Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) ("HAI-Scribe") review related only to the pressure regime. Reference is made to item 2.2 of the minutes of meeting held on 19 November 2014 (Appendix 11), together with the Inquiry's current finding at paragraph 12.31 PP2:

2.2	Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems?	**Yes**		**No**	**x**	**N/A**	
		Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk/issue.					

5.4 Following the discussion with the Board's technical advisors, including the specific meeting held on 13 January 2015, as explained in paragraph 2.1.4.9 of Multiplex's previous response, and reflected in the Inquiry's current finding at paragraph 12.36 PP2, the Board's requirement for the pressure regime in the single bedrooms was confirmed and the mandated positive pressure requirement which had been defined within the Reference Design Environmental Matrix was changed to a balanced pressure regime for the single bedrooms.

5.5 No further changes were requested by NHSL in relation to the air change regime for the single bedrooms prior to Financial Close.

5.6 Multiplex do not consider the final sentence in paragraph 12.41 PP2 is factually accurate:

> *"On 14 January 2015, Ms Mackenzie, Clinical Director, NHSL, emailed Fiona Halcrow, attaching the Report by TUV SUD/Wallace Whittle entitled "RHSC – DCN Edinburgh Air Movement Report For Single Bedrooms (Draft)" as well as drawings headed G1547(57) showing air flows and resultant pressure using an extract taken from level 2 bedroom ventilation. According to this report, bedrooms could achieve 6ach/hr and balanced pressure through opening windows."*

5.7 The report produced by Wallace Whittle stated that the: *"Current bedroom ventilation design is supply into the room at 4 ac/hr with opening windows and trickle vents to provide natural ventilation…."* (This being reflected in the Inquiry's findings at paragraph 12.34 PP2).

5.8 No instruction or direction was issued by NHSL to seal all windows or to change from the 4 mechanical air changes shown in the Environmental Matrix.

5.9 Multiplex would also note that during the preferred bidder period the parties worked together to produce an Energy Model which achieved the Board's requirements and Multiplex would refer the Inquiry to the final agreed version included in the Project Agreement (Appendix 12). The Energy Model Input Data incorporated into the Project Agreement as IHSL-XX-XX-DC-4.10_02 noted "Mixed Mode", 4 Mechanical AC, for Bedrooms (Appendix 12). This model was discussed and agreed with the Board as part of the discussion during the Preferred Bidder period, by way of example reference is made to (Appendix 13).

5.10 In relation to the position currently set out in the PP2, for the reasons outlined above, Multiplex would ask that the following corrections be made:

5.10.1.1 The current paragraph 12.41 PP2 be amended as follows:

- *"On 14 January 2015, Ms Mackenzie, Clinical Director, NHSL, emailed Fiona Halcrow, attaching the Report by TUV SUD/Wallace Whittle entitled "RHSC – DCN Edinburgh Air Movement Report For Single Bedrooms (Draft)" as well as drawings headed G1547(57) showing air flows and resultant pressure using an extract taken from level 2 bedroom ventilation. ~~According to this report, bedrooms could achieve 6ach/hr and balanced pressure through opening windows."~~*

5.10.1.2 The following be added after the current paragraph 12.50 PP2:

- *At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode", 4 Mechanical AC, for Bedrooms*

5.10.1.3 Paragraph 13.1.37 be amended as follows:

"~~This was disputed by IHSL. IHSL~~ Wallace Whittle maintained that it was proposing a mixed mode ventilation system – comprising of natural ventilation and mechanical ventilation - ~~which complied with SHTM03-01~~ which complied with the Board's Construction Requirements".

5.10.2 Multiplex would then suggest that the current paragraphs 13.1.39, 13.1.40 and 13.1.41 of PP 2 be deleted. This is on the basis that they are not an accurate summation of the full factual background, for the reasons outlined above. Multiplex would suggest the following be supplemented in their place:

- *At a HAI-Scribe meeting held on 19 November 2014, concerns were raised in relation to the pressure regime in single bedrooms.*
- *On 13 January 2015 a meeting was between NHSL, Mott MacDonald, Multiplex and Wallace Whittle, at which the ventilation regime for the single bedrooms was discussed.*
- *Following the meeting on 13 January 2015 Multiplex sought confirmation from NHSL in relation to their requirements for the regime within single bedrooms based on NHS's review with infection control*[1]
- *NHS' requirements were confirmed as being for there to be balanced pressure in the single bedrooms, as opposed to the positive pressure shown in the Reference Design Environmental Matrix. The Environmental Matrix was accordingly changed, and the Environmental Matrix incorporated in the Project Agreement at Financial Close required balanced pressure in the Single Bedrooms.*
- *At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode" and 4 Mechanical AC for the Bedrooms*

5.11 Multiplex also note at paragraph 12.49 PP2 that:

> *The Inquiry Team understands that the issues outlined above were not definitively resolved before NHSL entered into a contract with IHSL in February 2015. It is not clear to the Inquiry Team why NHSL were prepared to enter into the contract when such issues remained unresolved. This issue will require to be explored with witnesses at the hearing in April 2023.*

5.12 As explained above, Multiplex's understanding was that the design provided at Financial Close complied with the Board's Construction Requirements and that all matters raised by NHSL to Multiplex as requiring changes to the design proposed had been addressed.

6 Collaboration with NHSL

6.1 Multiplex note that at paragraph 6.8 of PP2 the Inquiry state the following:

> *There were five versions of the EM created by H&K. Thereafter, the EM was developed by prospective bidders. From the point the preferred bidder (IHSL) was appointed, the preferred bidder took over development of the EM.*

[1] See Appendix 14

6.2 Multiplex would propose that the words, *"in conjunction with NHSL and their technical advisors"* be added to the end of the final sentence.

6.3 Multiplex make this proposal as the preferred bidder did not work in isolation during the preferred bidder period, instead all parties worked together to produce a design which met the Board's requirements. The parties co-located, at the Board's request, in order to achieve this. Multiplex would refer the Inquiry to the Preferred Bidder Letter issued by NHSL to IHSL dated 5 March 2014 (Appendix 15), in this regard:

> The Board hopes that IHSL will be open to discussing the co-location of key individuals in the Project offices in the period up to Financial Close. The Board proposes to launch work with IHSL formally at a Project Team Meeting at 56 Canaan Lane on the morning of Thursday 13th March; please make immediate contact with Sorrel Cosens, on 0131 536 5063 to confirm arrangements for this.

6.4 During this period the Environmental Matrix was discussed with and reviewed by NHSL and their technical advisors. By way of example Multiplex would refer the Inquiry to:

- Minutes of the Design Steering Group, dated 14 July 2014, item 1.3 recording a review by Mott MacDonald and the preferred bidder of the RDS and Environmental Matrix (Appendix 16);
- Minutes of Project Management Group Meeting, dated 03 September 2014, item 1.7 noting the Environmental Matrix had been discussed at the Design Steering Group on Monday 01 September 2014 (Appendix 17);
- Design Steering Group Action Tracker, issue date 24 September 2014 (Appendix 18), Item 23 noting NHSL had issued comments to IHSL on the Environmental Matrix for review;
- On 29 September 2014 the draft Environmental Matrix was issued to NHSL and their advisors for review (Appendix 19);
- On 14 October 2014 Mott MacDonald issued further technical comments from the Board on the Matrix (Appendix 20);
- Minutes of Project Management Group Meeting, dated 22 October 2014, item 2.25 noting IHSL were to update the Environmental Matrix to incorporate the Board's Comments (Appendix 21);
- On 30 and 31 October 2014 the Environmental Matrix was issued to NHSL and their advisors for further review (Appendix 22);
- Minutes of Project Management Group Meeting, dated 05 November 2014, item 8.1 noting comments were to be submitted by the Board (Appendix 23);
- Minutes of PDG Meeting dated 10 November 2014, item 3.4 noting the Environmental Matrix was to be updated and a meeting scheduled with Mott MacDonald for 11 November 2014 (Appendix 24); and
- On 11 November 2014 a meeting titled "Environmental Matrix NHSL Comments Feedback took place between the preferred bidder NHSL and their advisors, the notes issued by Mott MacDonald formed the Board's final comments which formed the basis of the NHSL's RDD comments in in Section 5 of Schedule Part 6 of the Project Agreement at Financial Close. (Appendix 25)

6.5 In light of the above, Multiplex would propose the following amendments to PP2:

- The current paragraph 6.8 be supplemented as follows:

  "*There were five versions of the EM created by H&K. Thereafter, the EM was developed by prospective bidders. From the point the preferred bidder (IHSL) was appointed, the preferred bidder took over development of the EM* ***in conjunction with NHSL and their technical advisors****."*

- The following be added after the current paragraph 12.2 PP2:

  "The Minutes of the Design Steering Group, dated 14 July 2014, item 1.3 record a review by Mott MacDonald and the preferred bidder of the RDS and Environmental Matrix"

- The following be added after the current paragraph 12.4 PP2:

  "The Minutes of Project Management Group Meeting, dated 03 September 2014, also note that the Environmental Matrix had been discussed at the Design Steering Group on Monday 01 September 2014"

- The following be added after the current paragraph 12.6 PP2:

  "The Design Steering Group Action Tracker, issue date 24 September 2014 noted at Item 23 that NHSL had issued comments to IHSL on the Environmental Matrix for review"

- The following be added after the current paragraph 13.1.30:

  "During the preferred bidder period IHSL co-located with NHSL in order to develop the design, at NHSL's request"

- The current paragraph 13.1.31 be supplemented as follows:

  "IHSL developed the environmental matrix in the period to financial close, ***in conjunction with NHSL and their technical advisors****"*

  The environmental matrix was reviewed and commented on by NHSL and their technical advisors prior to Financial Close"

6.6 Multiplex also note the current provisional conclusion of the Inquiry at paragraph 13.1.32 that:

"IHSL removed the room function 'HDU' from the 'Room Function Reference Sheet'.

6.7 Multiplex would suggest paragraph 13.1.32 be amended to state:

"The room function 'HDU' was removed from the 'Room Function Reference Sheet'.

6.8 This is on the basis of the collaborative process discussed above and the Inquiry's findings at paragraph 8.24 PP2 that whilst the Environmental Matrix provided to the preferred bidder included a room function 'HDU', this room function was not assigned to any of the rooms listed in the department sheets,

7 Status of EM at Financial Close

7.1 Multiplex do not consider that the conclusion at paragraph 13.1.43 of PP2 is factually accurate that:

> *"NHSL entered into a contract with IHSL which stipulated that the Environmental Matrix would be 'Reviewable Design Data' under the contract. Therefore, the precise parameters for the ventilation system would be worked out after the contract was concluded."*

7.2 The RDD review process began during the preferred bidder period and the Environmental Matrix was specifically discussed with and reviewed by NHSL and Mott MacDonald. Reference is made to paragraph 6.4 above providing examples of this review.

7.3 As is noted above, and by the Inquiry at paragraph 12.23 PP2, a specific design meeting was then held on 11 November 2014 to discuss the Board's comments on the Environmental Matrix. Graeme Greer of Mott MacDonald issued a note of the meeting on the same day. These meeting notes then formed the basis of the comments in Section 5 of Schedule Part 6 of the Project Agreement, recorded by the Inquiry at paragraph 12.71 PP2.

7.4 Multiplex's understanding was that the Environmental Matrix was agreed subject to these comments. No comment was made in relation to the air change rate in bedrooms.

7.5 In light of the above, Multiplex would ask that the below corrections be made:

7.6 The current paragraph 12.65 and the final entry in the table on page 13 PP2 be deleted, together with final entry in the table on page 13 PP2:

> *"The EM was not approved by NHSL at Financial Close, and was subject to the Reviewable Design Data process."*

7.7 The second sentence in the current paragraph 13.1.43 PP2 be deleted and replaced with:

> *"NHSL's comments on the Environmental Matrix at Financial Close were recorded in Section 5 of Schedule Part 6 of the Project Agreement. No comments were made in relation to the Air Change Regime in the Bedrooms."*

7.8 Multiplex would also note, in relation to the status of the Environmental Matrix at Financial Close, the Inquiry currently state at paragraph 12.51 PP2 that:

> *"At Financial Close, the EM was included in the Project Agreement as one of 'Project Co's Proposals'."*

7.9 Multiplex do not consider this is factually accurate. The Environmental Matrix was not *one of 'Project Co's Proposals'.* The Environmental Matrix is incorporated as part of the Room Data Sheets in Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) of the Project Agreement.

7.10 Section 6 states:

> "*The Room Data Sheets are the Room Data Sheets as set out on the disc in the Agreed Form identified and executed as Appendix 1 (RDS Pack) and Appendix 2 (Environmental Matrix) of*

Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) of this Agreement, referred to in and forming part of this Agreement"

7.11 The Room Data Sheets are accordingly formed of two parts: (1) the Room Data Sheets themselves, which are provided as Appendix 1 to Section 6; and (2) the Environmental Matrix which is Appendix 2. Appendix 2 states:

"The Environmental Matrix is the Environmental Matrix as set out on the disc in the Agreed Form identified and executed as Appendix 1 (RDS Pack) and Appendix 2 (Environmental Matrix) of Section 6 (Room Data Sheet) of Schedule Part 6 (Construction Matters) of this Agreement, referred to in and forming part of this Agreement."

7.12 As noted previously, the Environmental Matrix this defined in the Board's Construction Requirements as follows:

"*Means the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department / unit / space / area as set out in Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) (as varied, amended or supplemented from time to time in accordance with the Project Agreement)*"

7.13 As noted above, paragraph 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, required IHSL to comply with the Room Data Sheets and Environmental Matrix as part of the Completion Criteria:

2.1.4: "*All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets*"

2.1.32: "*Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix*"

7.14 Multiplex would accordingly ask that the first sentence of paragraph 12.51 PP2 be deleted and replaced with:

"The Environmental Matrix was incorporated into the Project Agreement as part of the Room Data Sheets. It was stated to be in the Agreed Form and was defined in the Board's Construction Requirements as setting out the environmental condition requirements of the Board required within each department / unit / space / area."

7.15 And the following to be added after the current paragraph 13.1.43 PP2

The Environmental Matrix was incorporated into the Project Agreement as part of the Room Data Sheets. It was stated to be in the Agreed Form and was defined in the Board's Construction Requirements as setting out the environmental condition requirements of the Board required within each department / unit / space / area.

The contract between NHSL and IHSL required IHSL to comply with the Room Data Sheets and Environmental Matrix as part of the Completion Criteria for the Project.

8 Typographical Error.

8.1 Multiplex note that in paragraph 12.3 of PP2 it is stated in the second line that Liane Edwards is of MML. Liane Edwards was a Multiplex representative. The text should be corrected accordingly.

8.2 Multiplex is happy to discuss any of the proposed corrections/additions to PP2 with the Inquiry Team if it would be of assistance.

Provisional Position Paper 2

The Environmental Matrix for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences

Purpose of the Paper

This Provisional Position Paper has been produced to assist the Chair in addressing the terms of reference. It outlines the Inquiry Team's understanding of the development of the environmental matrix utilised for the Royal Hospital for Children and Young People and the Department of Clinical Neurosciences (RHCYP/DCN).

An earlier draft of this paper was circulated to Core Participants (CP) for consideration and comment. Those comments have been considered by the Inquiry Team and taken into account in finalising this paper.

In due course, the Chair is likely to be invited by the Inquiry Team to make findings in fact based on the content of this paper. The Inquiry Team does not presently intend to lead further detailed evidence on the matters outlined in it with the exception of areas where the position is currently unclear. Therefore, some of the matters addressed in the paper will be touched upon to a greater or lesser extent in the hearing set to commence on 24 April 2023. In addition, it is open to any CP – through evidence or submissions – to seek to correct and/or contradict the content of the paper. It is therefore possible that the Inquiry's understanding of matters set out in the paper may change, and so the position set out in this paper remains provisional. If it is the case that the Inquiry Team's understanding does change significantly, a revised edition of this paper may be published in due course.

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1. Introduction

1.1 NHS Lothian (NHSL) had responsibility for the RHCYP/DCN project. NHSL, with the assistance of its advisers, required to specify the technical requirements for the new hospital. This included briefing prospective tenderers on the technical requirements for key systems within the new hospital, including the ventilation system.

1.2 NHSL issued a document called an 'Environmental Matrix' (the EM) to prospective tenderers. The EM was essentially a spreadsheet that listed parameters for the ventilation system – including pressure and air changes per hour (ACH) - for various rooms in the new hospital. This paper seeks to address the purpose of the EM and how it was developed in the period from 2010 until the conclusion of a contract between NHSL and the preferred bidders (Integrated Heath Solutions Lothian (IHSL)) in February 2015. The paper also considers the ventilation specifications contained in the EM for key room types and compares this with published guidance, including Scottish Health Technical Memoranda (SHTM).

2. What is an Environmental Matrix?

2.1 An 'environmental matrix' is a spreadsheet that sets out a variety of technical parameters. This was addressed by Mr Stephen Maddocks, chartered building services engineer, in his oral evidence to the Inquiry on 12 May 2022. Mr Cantlay of Mott MacDonald Limited (MML), in his oral evidence to the Inquiry on 20 May 2022, described an 'environmental matrix' as:

> "…a spreadsheet which is pulling together all the environmental parameters into a single list against rooms so that they're all…in one place."

2.2 An 'environmental matrix' is different to a 'room data sheet'. The concept of a 'room data sheet' is addressed by Mr Maddocks at paragraph 3.3.2 of his report dated 10 April 2022. An example of a 'room data sheet' is included in

Appendix A of Mr Maddocks' report.

2.3 A 'room data sheet' is a multi-page document that sets out the requirements, including environmental requirements, for a specific room or space in a building. There would be a separate room data sheet for each room or space in a building. In contrast, an 'environmental matrix' lists all of the environmental parameters for spaces in the building in one table.

2.4 'Room Data Sheets' can be produced by way of a computer programme. For example, the Department of Health in England operated the 'Activity Database' (ADB), to assist with designing a hospital. ADB is a computer software package that assists healthcare planners, architects and teams involved in the briefing, design and equipping of healthcare environments. Content for ADB is developed from technical guidance such as Health Building Notes and Health Technical Memoranda (HTM). SHTMs are the Scottish equivalent of HTMs.

2.5 A room data sheet produced using ADB would comply with the requirements of HTMs because the room data sheet would automatically be populated with environmental parameters – including air changes per hour and pressure requirements - from the database. The database includes detailed information for various types of room required for a hospital. As long as the correct room type is selected, the room data sheet will be populated with the parameters set out in HTMs.

2.6 An environmental matrix is created by values being manually entered into a spreadsheet. The spreadsheet is not automatically pre-populated with values from a database. Accordingly, an environmental matrix would not automatically comply with published guidance such as HTMs. Such compliance would depend on the robustness of the process adopted for determining the values to be input into the spreadsheet. There is scope for errors to arise in the creation an environmental matrix. For example, transcription errors.

2.7 In his report, Mr Maddocks describes room data sheets as "…the most critical design document" when designing a new hospital. In his oral evidence, Mr

Maddocks described room data sheets, created using the ADB system, as "best practice". He considered that presenting technical specifications for a hospital in an alternative way, such as by way of a spreadsheet, could "lead to misunderstanding."

3. CEL 19 (2010) and The Policy on Design Quality for NHSScotland

3.1 The Scottish Government (SG) imposed a mandatory requirement on all NHS bodies to use the ADB system, or a suitable equivalent, as the tool for the briefing, design and commissioning stages of any new hospital project. This is addressed in Provisional Position Paper 1 on the Reference Design for the RHCYP/DCN from paragraph 3.12 onwards. A summary of the position is set out below.

3.2 This requirement was set out in HDL (2006) 58. The policy was updated by way of a Chief Executive Letter issued in 2010 (CEL 19). CEL 19 includes a document called 'A Policy on Design Quality for NHSScotland' (the Design Quality Policy). CEL 19 remained extant for the duration of the RHCYP/DCN project.

3.3 Mandatory requirement 7 of the Design Quality Policy states that:

> "All NHSScotland Bodies engaged in the procurement of both new-build and refurbishment of healthcare buildings must use and properly utilise the English Department of Health's Activity DataBase (ADB) as an appropriate tool for briefing, design and commissioning.[If deemed inappropriate for a particular project and an alternative tool or approach is used, the responsibility is placed upon the NHSScotland Body to demonstrate that the alternative is of equal quality and value in its application.]

3.4 The Design Quality Policy also contains a section entitled 'Activity DataBase (ADB)' which states that:

"Activity DataBase (ADB) is the briefing, design & commissioning tool for both new-build and refurbishment of healthcare buildings. It is a briefing and design package with an integrated textual and graphical database, an interface with AutoCAD and an extensive graphical library - the complete tool for briefing and design of the healthcare environment. ADB is produced by the Department of Health in England and is mandated for use in Scotland by the Scottish Government Health Directorates as the preferred briefing and design system for NHSScotland (see Mandatory Requirement 7 of this Policy). It has been developed to assist in the construction, briefing development, design and alteration of healthcare facilities.

Spaces designed using ADB data automatically comply with English planning guidance (such as Health Building Notes (HBNs) and Health Technical memoranda (HTMs) as ADB forms an integral part of the English guidance publication process. Whilst Scottish users can create their own project-specific briefs and designs using ADB's extensive library of integrated graphics and text which includes room data sheets, room layouts and departmental room schedules, extreme care should be taken to ensure that such data generated by the package are consistent and compliant with Scottish-specific guidance such as Scottish Health Planning Notes, Scottish Health Facilities Notes (SHFNs) and Scottish Health Technical Memoranda (SHTMs) as published by Health Facilities Scotland."

3.5 A responsibility was therefore placed on NHSL to utilise ADB, or an equivalent tool, for the briefing, design and commissioning of the hospital. If NHSL determined that the ADB system was inappropriate for the RHCYP/DCN project as a briefing, design and/or commissioning tool, an obligation was placed on NHSL to demonstrate that the alternative tool adopted was of equal quality and value to the ADB system.

4. SHTM03-01: Ventilation for Healthcare Premises, Part A – Design and Validation

4.1 SHTMs are the Scottish equivalent of HTMs. SHTM 00 is entitled 'Best practice guidance for healthcare engineering – policies and principles'. It states that the aim of the guidance is to ensure that everyone concerned with the management, design, procurement and use of a healthcare facility understands the requirements of the specialist, critical building and engineering technology involved.

4.2 The content of SHTM03-01 sets out guidance on ventilation for health care premises. The detailed content of SHTM03-01 was addressed at the hearing in May 2022.

4.3 SHTM03-01 was not in place in the early stages of the project. It was first issued in October 2011. Prior to that, the relevant Scottish Guidance was set out in SHTM2025 (which did not include an equivalent of Table A1 in SHTM03-01, which sets out environmental parameters for rooms or departments requiring specialised ventilation).

4.4 Paragraph 1.2 of SHTM03-01 states that it provides "comprehensive advice and guidance" to healthcare managers and design engineers on specialist ventilation in healthcare settings. Section 7 is entitled "Specialised ventilation systems". Paragraph 7.2 provides that specialised ventilation is required for "critical areas and high-dependency units of any type". Paragraph 7.3 states that design information is provided in Table A1. Paragraph 7.13 notes that air change rates are specified in the Table in A1.

4.5 Table A1, in Appendix 1, provides guidance on technical parameters, including air changes per hour and pressure regimes, for various areas of a hospital. Table A1 states that a 'General Ward' requires six air changes per hour. A 'single room' requires six air changes per hour. 'Critical care areas' require 10 air changes per hour. SHTM03-01, Appendix A, does not list parameters for every possible room. For example, there is no entry for a "4

bed room".

5. The Purpose of the Environmental Matrix

5.1 NHSL did not utilise room data sheets, created using ADB, as a tool for briefing of prospective tenderers on its requirements for the ventilation system. The Inquiry Team understands that the EM was utilised as a substitute at the procurement stage.

5.2 This is set out in emails between Hulley & Kirkwood (H&K), who created the original EM, and BAM Construction (The original Principal Supply Chain Partner for the project) in 2010:

> 'With regards to environmental issues, rather than employ ADB M&E sheets, HK will produce Environmental Matrix spreadsheet for each room type for easy reference as a user sign off tool.' [15 February 2010]
>
> 'This document is intended as an easier tool to replace ADB RDS M&E sheets for the elements covered in the matrix.' [8 September 2010]

5.3 The EM was issued to prospective tenderers at both the Invitation to Participate in Dialogue (ITPD) stage and the Invitation to Submit Final Tenders (ISFT) stage of the procurement exercise. The ITPD stated certain room data sheets would be require to be submitted as part of the tender process. However, a full set of room data sheets would only need to be created by the preferred bidder before financial close.

5.4 The ITPD also set out the Board's Construction Requirements (BCR). Section 2.2(b) of the BCR included a requirement that the design complied with CEL 19. Given this stipulation, and CEL 19's requirement for the ADB system to be utilised as a tool for briefing and design, it is not clear to the Inquiry Team why NHSL also sought to issue the EM to prospective tenderers.

5.5 It is not clear to the Inquiry Team precisely when NHSL determined that room data sheets, created using the ADB system, would not be utilised at the briefing stage of the RHCYP/DCN project. It is also not clear why this decision

was taken given the guidance set out in CEL 19.

5.6 CEL 19 places a responsibility on NHSL to demonstrate that any alternative briefing tool to ADB is of equal quality and value in its application to room data sheets created using ADB.

5.7 H&K were asked by the Inquiry Team to confirm how it was demonstrated that the EM was of equal quality and value to ADB. H&K have advised the Inquiry Team that this relates to information outwith H&K's knowledge.

5.8 To date, no documentation has been provided to the Inquiry that demonstrates that NHSL considered CEL 19 or the NHS Design Quality Policy at the time the decision was taken to utilise the EM as a briefing tool for the project. It is not clear to the Inquiry Team what basis NHSL had for considering: (i) that the use of the ADB system was inappropriate for the briefing stage of the project; and (ii) that the EM would be as effective as the ADB system for the purposes of the briefing stage.

5.9 To date, no information or documentation has been provided to the Inquiry that suggests that the EM was of equal quality to room data sheets created using ADB. The Inquiry Team's provisional view is that the EM was not of a similar quality to room data sheets produced using the ADB system. That is because the EM was a spreadsheet that was not automatically populated with information held on a database of technical information that complied with HTMs and/ or SHTMs. This gave rise to the potential for errors, including transcription errors, to arise.

5.10 NHSL maintains that tenderers required to produce room data sheets using ADB and to ensure compliance with CEL 19 and published guidance including SHTM03-01. These matters will require to be explored with witnesses at the April 2023 hearings.

Multiplex maintains that tenderers were required under ITPD Volume 1, Section 2.5.3 to produce Room Data Sheets incorporating the Room Information and that in relation to the environmental information contained in the Room Data Sheets, tenderers were required to use the Board's specific requirements provided for in the Environmental Matrix

6. Development of the Environmental Matrix for the RHCYP/DCN Project

The Creation of the EM

6.1 The EM for the RHCYP/DCN project was originally developed by H&K. H&K are a firm of mechanical and electrical engineers. H&K have informed the Inquiry that the EM was created by information being manually input to a spreadsheet by a qualified engineer. The EM was not created using the ADB system or any similar computer software system.

6.2 As described above, the EM is a spreadsheet setting out technical information concerning the ventilation system in the hospital. In addition to that, there is a 'Guidance Notes' section and a 'Comments Summary Section'. Thereafter, there are entries for various areas in the hospital. For example, 'Critical Care/HDU/Neonatal Surgery'. Each type of room in the proposed hospital is given a separate line entry under the heading 'Room Name'. Columns are provided for environmental data. This includes entries for:

- Temperature
- Relative Humidity (removed 03/02/2012)
- Heating
- Cooling
- Cooling Type
- Ventilation including type, supply air changes per hour (ac/hr), extract ac/hr, relative pressure, minimum filtration
- Safety temperatures – surface, water
- Lighting

6.3 Information such as department code, department name, department sub-group and room name, quantity (of a particular room type), area (this was removed in later versions) and notes are also included. From 2012 onwards, another column was added for 'room function' and a separate sheet was included in the EM called 'Room Function Reference Sheet'. This is addressed in section 8 of this paper, 'Reference Design development for RHSC-DCN

project procured under NPD: 2012'

6.4 Technical specifications are aligned to the function of each room. For example, the environmental conditions required to make an operating theatre safe and comfortable for its users differ from those needed for rooms without special clinical requirements.

6.5 The starting point in creating the EM was the 'Schedule of Accommodation' (SoA). The SoA is a spreadsheet containing: (i) the departments; (ii) room types within each department; and (iii) the number, and square metreage, of each specific room type. A schedule of accommodation is typically produced by a specialised healthcare planner, and is the end-product of close dialogue with the clinicians who will be working at the prospective hospital. In particular, the clinicians will inform the healthcare planner of their room requirements within specific departments, which will then be translated into a schedule format by the healthcare planner. The Schedule of Accommodation used for H&K's EM was initially prepared by Tribal, healthcare planners to the Project under Frameworks Scotland. Versions of the EM produced by H&K in 2012 used the SoA prepared by NHSL.

6.6 The EM contains guidance notes at the beginning of the document which refers to NSS guidance, building standards and other NHSL requirements. From 2012 onwards, every line entry in the 'notes' column of the EM contains the instruction "See Guidance Notes"[1].

6.7 While the EM provided very specific technical information relating to different departments, other design documents such as design briefs and Clinical Output-based Specifications gave an overview of the clinical services intended for each department, and the considerations that tenderers design teams needed to take into account to allow the facilities to meet the needs of users and enable services to run safely and efficiently. This included high-level information relating to environmental conditions, and reference to design guidance. These documents were produced at an early stage of the project by clinical task sub-groups, and signed off by the Clinical Management Team, the Project Clinical Directors, and the Project Sponsor. Clinical Output

[1] The 2010 versions contained more specific instructions in the notes column.

Specifications were included in the Invitation to Participate in Dialogue (ITPD) Volume 3, which set out the Board's Construction Requirements.

The Stages of Development

6.8 There were five versions of the EM created by H&K. Thereafter, the EM was developed by prospective bidders. From the point the preferred bidder (IHSL) was appointed, the preferred bidder took over development of the EM in conjunction with NHSL and their technical advisors.

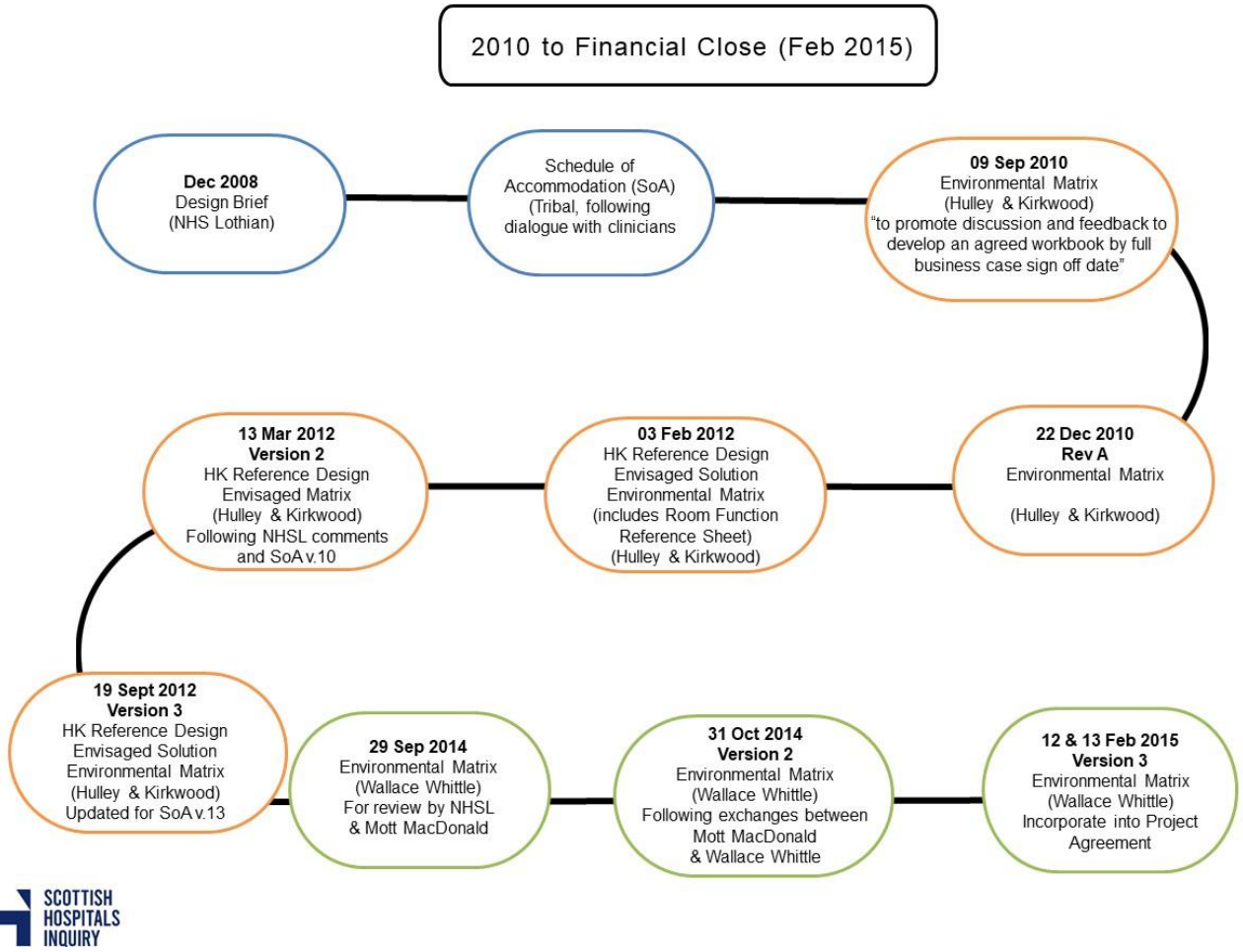
6.9 The table below provides a summary of the development of the EM at different stages of the project.

Stage of Project	Party Responsible for the EM	Comments
2010: RHSC Project under Frameworks Scotland	H&K, subcontracted by BAM, who were the principal consultants under Frameworks Scotland.	• 09/09/10 "First Issue" • 22/12/10 "RDS Environmental Matrix updated in accordance with Tribal SoA[2] Sheets Version 8. H&K Scheme Design Update"

[2] SoA – Schedule of Area or Accommodation

Stage of Project	Party Responsible for the EM	Comments
2012: Reference Design development for RHCYP/DCN project procured under NPD	H&K as part of the reference design team (commissioned by Davis Langdon, a sub-contractor of MML) This version was reviewed by NHSL Estates.	• 03/02/12 "First Issue Based of Schedule of Area V8" • 13/03/12 "Second Issue Based on Schedule of Area V10 Ward Room T Max Reduced from 28 to 25 Degrees Celsius Revised to suit NHSL Comments" • 19/09/12, "Third Issue Based on Schedule of Area V13"
March 2013 – Jan 2014 Competitive Dialogue and final tender submission	The bidder's design teams. Bidders were asked to confirm acceptance of NHSL's Environmental Matrix, highlighting any proposed changes on an exception basis.	
2014: Further development of Preferred Bidder's design proposals up to Financial Close	IHSL was appointed as preferred bidder. Multiplex were contracted by IHSL for the design, procurement, construction and commissioning of the Works. Wallace Whittle, were the Mechanical and Engineering design consultants to Multiplex. MML provided comments on behalf of the Board. ~~The EM was not approved by NHSL at Financial Close, and was subject to the Reviewable Design Data process.~~	• 29/09/14 (revision) • 31/10/14 (revision) • 14/02/15, "Financial Close"

ENVIRONMENTAL MATRIX
For the Royal Hospital for Children and Young People and Department for Clinical Neurosciences, Edinburgh



7. RHSC Project under Frameworks Scotland: 2010

7.1 The EM was originally created in 2010, when the project was restricted to the re-provision of the Royal Hospital for Sick Children (RHSC), which was being procured under Frameworks Scotland. Frameworks Scotland was a procurement programme managed by Health Facilities Scotland (HFS) through which HFS selected a number of Principal Supply Chain Partners (PSCP) who would then be available to partner with NHS bodies on healthcare projects. NHS bodies could choose one of these PSCPs rather than conducting a lengthier, standalone, procurement exercise.

7.2 BAM Construction, one of Framework's Scotland's PSCPs, was appointed Principal Supply Chain Partner for the RHSC Re-Provision project on 10 July 2009. NSHL and BAM negotiated the contract for the delivery of stages 3 and 4 of the project, which involved design development and assistance in preparing for the Full Business Case, and the completion of design, construction and handover of the project.

7.3 The Project Manager was Fraser McQuarrie from Davis Langdon and the Supervisor was David Stillie of MML. BAM's Mechanical and Electrical Engineering Design consultant was H&K. The healthcare planner was Tribal. Although the contract was only concluded in 2010, work on the project began before the conclusion of the contract.

7.4 In June 2009, a RACI[3] matrix was produced, showing which parties were responsible, accountable, consulted and informed of different elements of the project, including the design. According to this matrix, the PSCP was responsible and accountable for undertaking the design of the project, and co-ordinating and managing the design process and design teams. The Board of NHSL was responsible and accountable for developing the clinical brief, carrying out the clinical review of BAM's design and advising and

[3] RACI stands for 'responsible, accountable, consulted, informed'.

issuing all NHSL policies to the PSCP for design requirements. NHSL was accountable for managing the clinical review of BAM's design but the advisers were responsible for this. Advisers were also both responsible and accountable for many aspects of reviewing BAM's design, including scrutinising BAM's design and construction information on all technical matters relating to the project.

7.5 In December 2009, BAM prepared a programme for Stage 3 of the project (development of design and preparation for the full business case), which included an activity schedule. According to this schedule, H&K was responsible for Concept Design, Scheme Design and Detail Design and Market Testing. Responsibilities under Scheme Design including amongst other things "Services Input into RDS & C Sheets". The Inquiry Team understands that RDS stands for Room Data Sheets (which are addressed at paragraph 5 above).

7.6 On 15 February 2010, Michael O'Donnell from H&K wrote to David Muir of BAM, copying in other design team members, providing feedback on the Stage 3 Programme. Under the heading 'HK Scheme Design' Mr O'Donnell wrote:

> "With regards to environmental issues, rather than employ ADB M&E sheets, HK will produce Environmental Matrix spreadsheet for each room type for easy reference as a user sign off tool."

7.7 On 2 July 2010, in an email to Graeme Brodie the Architectural & Technical Services Manager for BAM Construction, Michael O'Donnell described the approach H&K would take to control the maximum temperature in different rooms of the hospital on the hottest summer day. This email introduces a figure of four air change rates for bedrooms.[4] Mr O'Donnell noted that for atypical bedroom to meet the HTM 03-01 criteria of a 18°C to 28°C float range, HTM recommends 6ac/hr through mechanical supply or natural ventilation (or both) and

[4] Ventilation has an effect on the temperature of a room, similar to the cooling effect of a breeze. The higher the air change rate (written as ac/hr) or air flow, the cooler the room becomes (without an additional source of heating).

stated that:

> "Design Solution for RHSC- Dynamic Simulation Modelling we have carried out in previous schemes show that with around 4ac/hr of cooled supply air to for example a typical ward room can maintain such conditions. Normally, extract is achieved through en-suites. This would be supplemented by opening windows for natural ventilation."

7.8 For High Dependency Units (HDU), Mr O'Donnell stated that:

> "Design Criteria - HBN 57 gives specific guidance as well as HTM 03-01 - esp Appendix 2 for air change rates - 10ac/hr S&E[5], 18°C to 25°C control range.
>
> The department should be air conditioned and controlled on a zonal basis.
> Design Solution for RHSC - With 10ac/hr of cooled supply and extract air and with multiple zoned ducted reheat batteries on supply to critical care wards/individual/zoned rooms it is possible to maintain such conditions. Central AHU plant requires humidification."

7.9 Therefore, at the preliminary stages of the project, H&K was aware of the need for HDU and critical care areas to have 10 air changes per hour.

7.10 H&K issued the first EM in September 2010. The Guidance Notes section stated that:

> "1. This workbook is to promote discussion and feedback to develop an Agreed Workbook by FBC sign off and is intended as an easier reference tool to replace ADB RDS M&E Sheets for elements described on these sheets"

7.11 The first EM contained a number of potential inconsistencies with the guidance set out in HTM 03-01: Specialised Ventilation for Healthcare

[5] Supply and Extract. Extract systems tend to be used to remove contaminated air or air containing odour, whereas supply systems are used to supply fresh air to a room, when the air movement in the room needs to be controlled.

Premises. (The Scottish version of this guidance, SHTM 03-01: Ventilation for healthcare premises, was not yet available and SHTM 2025: ventilation in healthcare premises, did not contain recommendations for air change rates.)

7.12 The tables below replicate relevant columns of the EM with the recommendations from HTM 03-01 given in bold where they vary from those given in the matrix. These tables show extracts relating to certain rooms and are not intended to be a comprehensive list of all incidences in the EM where figures potentially vary from those in published guidance including HTM 03-01 (SHTM 03-01 not being in existence in 2010).

B1 Critical Care/HDU/Neonatal Surgery

Room Name	Temperature		Ventilation					Notes
	Design max deg C	Design min deg C	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min filtration	
Open Plan Bay (4 beds)	25	18	S&E **S**	10	10 **0**	Balanced **Positive**	F7	See p.2 guidance notes - Note 13
Single Bed Cubicle	28 **25**	18	S	4 **10**	0	positive	G4 **F7**	See p.2 guidance notes - Note 13

Guidance note 13 states: “The internal temperature in mechanically ventilated rooms shall not exceed the maximum temperature as listed on these Environmental Matrices provided external summer design criteria is not exceeded.”

C1 InPatient Pathway/ Ward Care

Room Name	Ventilation					Notes
	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min filtration	
4 Bed Room[6]	S	4 **6**	0	Positive **Balanced or negative**	G4	See p.2 guidance notes – Note 5
Bedroom – single	S	4 **6**	0	Positive **Balanced or negative**	G4	See p.2 guidance notes – Note 5

Guidance note 5 states: "Ventilation air change rates and the use of natural ventilation in Patient Areas shall be reviewed throughout the detail design process to ensure a maximum internal temperature of 28°C (dry bulb) is not exceeded for more than 50 hours per year during norm occupancy as listed in HTM 03-01 Clause 2.15."

7.13 The Open Plan Bays (with four beds) in Critical Care were given air change rates consistent with those outlined in HTM 03-01. However, the ventilation type and pressure regime were inconsistent with HTM 03-01. For single-bed cubicles, the air change rates, maximum temperature and minimum filtration were all inconsistent with HTM 03-01.

7.14 For single-bed rooms and multi-bed rooms in 'InPatient Pathways/Ward Care', the air change rates and pressure regime was inconsistent with the recommendations in HTM 03-01.

7.15 The ventilation design solution is explained in guidance note 14 and reiterates H&K's approach to controlling temperature:

[6] SHTM 03-01 does not specify the requirements for multi-bed rooms. According to HFS advice received from NHSL these are to be treated the same as single bedrooms. The 2011 and 2013 versions of Activity Database room data sheets confirm this.

"**Typical bedroom:** Design Criteria - HTM 03-01 Clause 2.15 - internal temperatures in patient areas should not exceed 28°C db for more than 50 hrs per year. Appendix 2 HTM 03-01 gives 18°C to 28°C float range. Design Solution for RHSC- Dynamic Simulation Modelling shall show that with around 3 to 4 ac/hr of cooled supply air to for example a typical ward room can maintain such conditions. Normally, extract is achieved through en-suites. This would be supplemented by manually opening windows for natural ve [ventilation]

HDU bed areas – Design criteria HBN 57 gives specific guidance as well as HTM03-01 – esp Appendix 2 air change rates 10 ac/hr S&E, 18°C to 25°C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes)

…

Design solution for RHSC – With 10 ac/hr of cooled supply and extract air…to critical care wards…

…

Critical Care areas – Design Criteria – HTM03-01 – esp Appendix 2 for air change rates – 10 ac/hr S&E…"

7.16 The guidance note above correctly identifies the parameters for high dependency units and critical care areas.

7.17 The second version of the EM was produced in December 2010. The air change rate for single bed cubicles in Critical Care was corrected to 10 ac/hr, but the ventilation type, relative pressure, minimum filtration and maximum temperature were all potentially inconsistent with recommendations in HTM 03-01.

B1 Critical Care/HDU/Neonatal Surgery

Room Name	Ventilation					Notes
	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min filtration	
Open Plan Bay (3 beds)	S & Ex **S**	10	10 **0**	Balanced **Positive**	F7	See p.2 guidance notes - Note 13
Single Bed Cubicle	S & Ex **S**	10	10 **0**	Balanced **positive**	G4 **F7**	See p.2 guidance notes - Note 13

7.18 Neither iteration of the EM by this stage of the project provided detail regarding the sub-departments with 'InPatient Pathways/Ward Care', for example, the Haematology/Oncology department, which provides services for neutropenic patients and thus has specialist clinical requirements.

8. Reference Design development for RHSC-DCN project procured under NPD: 2012

8.1 On 17 November 2010, the SG introduced a policy change and announced that RHSC would be funded under the Non-Profit Distribution (NPD) model. With the change in funding, it was also decided that the Department of Clinical Neurosciences (DCN) would be co-located with the RHSC.

8.2 The change in the method of funding necessitated a change in the structure of the project. Rather than appointing a contractor to design and build the hospital, a project agreement required to be put in place. This required a standalone procurement exercise to be conducted which complied with the relevant statutory regulations (the Public Contracts (Scotland) Regulations 2006 and thereafter the Public Contracts (Scotland) Regulations 2012). In the circumstances, NHSL adopted the competitive dialogue procedure. The Inquiry Team's provisional understanding of the competitive dialogue procedure, in relation to the development of the EM, is set out in section 10 of this paper, 'The Environmental Matrix during Competitive Dialogue'.

8.3 The decision was made to follow a Reference Design approach, which had implications for the extent of design development to be undertaken by a) NHSL's advisers in advance of procurement, and b) bidders during

competitive dialogue.

8.4 The reference design approach is the subject of a separate paper produced by the Inquiry Team. However, in essence, a reference design provides bidders with certain fixed requirements which the contracting authority considers are mandatory (otherwise, the 'mandatory elements'). This can be contrasted with an exemplar design which provides one possible solution but tenderers have the ability to submit alternative solutions.

8.5 NHSL appointed MML as Technical Adviser, for the revised project with the new funding model, on 22 March 2011. According to the 'Technical Adviser Scope' included in the contract, MML would, amongst other things, manage and co-ordinate the review of any design proposals against the scheme brief during the preparation of the Business Cases, lead on the preparation of Reference Design documentation, and check the Reference Design for compliance with all appropriate NHS and legislative guidelines and requirements and identify any derogations.

8.6 MML contracted Davis Langdon as sub-consultant on 10 May 2011. According to the 'Technical Adviser Scope', included in the sub-consultancy agreement, Davis Langdon would, amongst other things, act as Lead Technical Adviser and point of contact for NHSL, and prepare the 'Invitation to Partake in Dialogue' [sic] including Output Specification, Payment Mechanism etc.

8.7 MML and Davis Langdon appointed H&K to the Reference Design Team on 11 July 2011. H&K's role was Services Engineer, with the following responsibilities (amongst others):

- Developing the environmental information to use for Room Data Sheets
- Input to Building Research Establishment Environment Assessment (BREEAM) pre-assessment workshops and provision of preliminary 'evidence' as necessary, relating to requirement for a BREEAM 'excellent' rating.[7]

[7] BREEAM is a method of assessing, rating and certifying the sustainability of buildings

- Support BREEAM pre assessment with M&E Strategy Drawings and Statements, Energy strategy and schedules of power, heating and cooling loads, Engineering design philosophy.
- Review and advise the client on the engineering services requirement elements contained within the ADB room data sheets.
- Review architects proposals for compliance with section 6 (energy) of the Scottish Building Regulations and SHTM 07-02: Encode – making energy work in healthcare.
- Determine the mechanical services system philosophies, including on natural ventilation and mixed mode ventilation.

8.8 The change in the funding model occurred at a point where significant design work had already been undertaken. The Inquiry Team has seen no documentation which suggests that NHSL, or its design team, re-appraised whether an environmental matrix was the correct approach for the revised project when the design team was re-appointed.

8.9 H&K produced three further iterations of the EM, now called 'HK Reference Design Envisaged Solution Environmental Matrix'. According to H&K, the information contained in the EM was derived from reference to SHTM/HTM/HBN Guidance current at the time of the reference design (2011/2012) and Reference Design client briefing information, as referred to within the Guidance Notes page of the matrix.[8] SHTM 03-01 was issued in October 2011.

8.10 The 'HK Reference Design Envisaged Solution Environmental Matrix' introduced the 'Room Function Reference Sheet' (RFRS). The RFRS is essentially a summary of room types that occur in the matrix. It was intended to be used to facilitate design review and refine inputs. An extract from the Room Function Reference Sheet is reproduced below:

[8] A40151858 H&K response to EM paper, p23.

Room Function Reference Sheet

The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions.

Room Function	Temperature		Ventilation					Notes
	Design Max deg C	Design Min deg C	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
Bedroom	25	20	Central Supply Air	4	0	Positive	G4	See Guidance Notes
Changing Facilities	28	18	Central Supply and Extract	5	4	Positive	G4	
HDU	25	18	Central Supply Air	10	0	Positive	F7	See Guidance Notes
Multi-bed Wards	25	18	Central Supply Air	4	0	Positive	G4	See Guidance Notes
Isolation lobby	25	18	HBN4 Dependent	HBN4 Dependent	HBN4 Dependent		F7	See Guidance Notes
Isolation bedroom	25	21	HBN4 Dependent	HBN4 Dependent	HBN4 Dependent	Balanced	F7	See Guidance Notes
Operating Theatre Recovery	25	18	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	Balanced	F7	See Guidance Notes
Recovery Bay/ Recovery Room	28	20	Central Supply and extract	4	0	Positive	G4	See Guidance Notes

8.11 As noted in the sub-heading of the Room Function Reference Sheet, the room function reference sheet acted as a 'reference template' used to "…populate cells within the department sheets for individual room environmental conditions". A new column for 'room function' was added to the department sheets.

8.12 Not all of the 'room functions' set out in the EM appear in HTM 03-01 or SHTM 03-01. For example, there is no 'Application' listed in Appendix 2 of HTM03-01, or Table A1 of SHTM 03-01, for the terms 'Multi-bed ward' or 'HDU'. HTM 03-01 and SHTM 03-01 include various 'Applications' including: 'General Ward'; 'Critical Care Areas'; and 'Neutropenic patient'. None of these appear as 'room functions' in the RFRS.

8.13 It is not clear to the Inquiry Team how the creator of the EM determined what 'Room Functions' should be included, how they should be named, and how parameters should be ascribed to the stated 'room functions'.

8.14 For rooms in various departments in the hospital, it is not clear how a 'Room Function' was chosen from the RFRS. In particular, it is not clear to the Inquiry Team if this was a decision taken by an engineer acting in isolation or whether there was clinical input into this decision. This is relevant because there are various 'Room Functions' whereby the creator could face a range of options. For example, area B1 is given the department name 'PICU and HDU's – 24 Beds'. It is an area where critical care will be provided. There are a range of department sub-groups and room names in the EM for B1. One room names is 'Open Plan Bay (4 beds)'. The 'Room Function' of 'Multi-bed wards' is set out in the EM. It is not clear to the Inquiry Team why this 'Room Function' was chosen rather than 'HDU'. It is a general ward but it is a general ward in a critical care area.

8.15 The issues outlined above will require to be explored with witnesses at the hearing in April 2023.

8.16 The first issue of the 'Reference Design Envisaged Solution Environmental Matrix' dated 3 February 2012, was reviewed by NHSL's Estates Team. The following comments were received via email on 7

March 2012.

Environmental matrix

1. NHSL guidance states that all general medical/clinical areas temp design max of 25°C.Critical Care, theatres up to 28°C, Burns & Plastic Dressings may be higher.
2. Localised control +/- 2C.
3. Comfort cooled will be by AHP.

8.17 The Second Issue, dated March 2012, was revised to align with SoA10 as well as the comments from NHSL's Estates Team. The Third Issue, dated September 2012, was revised in accordance with SoA 13 which arose after the Reference Design Deliverables had been completed.

8.18 No comments were provided by NHSL highlighting any potential problem with the 'Room Function' ascribed to any room in the hospital. That included critical care areas where the values in the EM were potentially lower than those stated in HTM 03-01 and SHTM 03-01.

8.19 The table below contains selected extracts from the department sheets of the third issue of the 2012 EM, which is the version ultimately shared with prospective tenderers.

8.20 The department sheets contained a number of potential inconsistencies with published guidance, including SHTM 03-01. Where figures in the department sheets differ from the parameters and values contained in SHTM 03-01, or SHPN 04-01 Supplement 1 for isolation rooms, the recommended figures have been put in bold.

Selected Extracts from the Environmental Matrix third issue 2012[9]									
Dept Name	**Dept Sub Group**	**Room Name**	**Room Function**	**Ventilation**					**Notes**
				Type	**Supply ac/hr**	**Extract ac/hr**	**Relative Pressure**	**Min Filtration**	
B1 PICU and HDUs	PICU – 8 beds	Single Bed Isolation Cubicle	Isolation Bedroom	HBN4 Dependent **SHPN4 supp1**	HBN4 Dependent **SHPN4 supp1**	HBN4 Dependent **SHPN4 supp1**	Balanced	F7	See Guidance Notes
		Gowning lobby	Changing Facilities **Isolation lobby**	Central Supply and Extract **Supply**	5 **69**	4 **0**	Positive	G4 **F7**	See Guidance Notes
		Single Bed Cubicle	Bedroom **Critical Care Areas (Corresponds with 'HDU' on RFRS)**	Central Supply Air	4 **(10)**	0	Positive	G4 **F7**	See Guidance Notes

[9] Not intended as a comprehensive list of all examples of where figures differ from parameters and values contained in SHTM 03-01.

Selected Extracts from the Environmental Matrix third issue 2012[9]									
Dept Name	**Dept Sub Group**	**Room Name**	**Room Function**	**Ventilation**					**Notes**
				Type	**Supply ac/hr**	**Extract ac/hr**	**Relative Pressure**	**Min Filtration**	
		Open Plan Bay (4 beds)	Multi-bed Wards **Critical Care Areas (Corresponds with 'HDU' on RFRS)**	Central Supply Air	4 **(10)**	0	Positive	G4 **F7**	See Guidance Notes
	High Acuity – 6 beds	Single cot cubicle	Bedroom **Critical Care Areas (Corresponds with 'HDU' on RFRS)**	Central Supply Air	4 **(10)**	0	Positive	G4 **F7**	See Guidance Notes
		Single Bed Isolation Cubicle	Isolation Bedroom	HBN4 Dependent **SHPN4 supp1**	HBN4 Dependent **SHPN4 supp 1**	HBN4 Dependent **SHPN4 supp 1**	Balanced	F7	See Guidance Notes
		Gowning Lobby	Isolation Lobby	HBN4 Dependent	HBN4 Dependent	HBN4 Dependent	0	F7	See Guidance Notes

Selected Extracts from the Environmental Matrix third issue 2012[9]									
Dept Name	**Dept Sub Group**	**Room Name**	**Room Function**	**Ventilation**					**Notes**
				Type	**Supply ac/hr**	**Extract ac/hr**	**Relative Pressure**	**Min Filtration**	
				SHPN4 supp1	**SHPN4 supp 1**	**SHPN4 supp 1**			
		Open Plan Bay (4 beds)	Multi-bed Wards **Critical Care Areas. Corresponds with 'HDU' on RFRS**	Central Supply Air	4 **(10)**	0	Positive	G4 **F7**	See Guidance Notes
C1.1 Medical Inpatients	Medical	Single Bedroom	Bedroom	Central Supply Air	4 **(6)**	0	Positive **balanced or negative**	G4	See Guidance Notes
		4 Bed Room	Multi-bed Wards[10]	Central Supply Air	4 **(6)**	0	Positive **balanced or negative**	G4	See Guidance Notes

[10] SHTM 03-01 does not specify requirements for 4 bed rooms, however ADB room data sheets c.2011 show same requirements as Single room.

Selected Extracts from the Environmental Matrix third issue 2012[9]									
Dept Name	**Dept Sub Group**	**Room Name**	**Room Function**	**Ventilation**					**Notes**
				Type	**Supply ac/hr**	**Extract ac/hr**	**Relative Pressure**	**Min Filtration**	
C1.4 Haematology /Oncology Inpatients and Daycases	Paedia-tric Beds	Single Bedroom	Bedroom **Neutropenic Patient ward. No correspon-ding room function on RFRS**	Central Supply Air	4 **(10)**	0	Positive	G4 **H12**	See Guidance Notes
	Day Facilitie s	Multi Bed Room: day care, 4 beds & 2 chairs	Multi-bed Wards **Neutropenic Patient ward. No correspon-ding room function on RFRS**	Central Supply Air	4 **(10)**	0	Positive	G4 **H12**	See Guidance Notes

Selected Extracts from the Environmental Matrix third issue 2012[9]									
Dept Name	**Dept Sub Group**	**Room Name**	**Room Function**	**Ventilation**					**Notes**
				Type	**Supply ac/hr**	**Extract ac/hr**	**Relative Pressure**	**Min Filtration**	
P1 Combined theatres	RHSC Patient Pre-Discharge Areas	Post Anaes-thetic Recovery	Recovery Bay/ Recovery Room **Only one type of recovery room in SHTM 03-01. Operating Theatre Recovery on RFRS**	Central Supply and Extract	4 **(15)**	0 **(15)**	Positive **balanced**	G4 **F7**	See Guidance Notes

8.21 Each line entry contains the instruction ‘see guidance notes’. For Critical Care/HDU, as well as post theatre recovery areas, the information contained in the guidance notes differed from that contained in the department sheet. Guidance Note 15 states:

> **“HDU bed areas** - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr S&E, 18°C to 25°C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes).
>
> The department should be air conditioned and controlled on a zonal basis.
>
> Central AHU plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).
>
> **Critical Care areas** - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr S&E, 18°C to 25°C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes). NHSL may require specific rooms to have a control range up to 28°C.
>
> Central AHU plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).
>
> **Post theatre recovery areas** - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates – 15 ac/hr S&E , 18°C to 25°C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions)."

8.22 It is not clear why values were inserted into the EM which did not conform to the statements made in the Guidance Notes. This issue will need to be explored with witnesses at the April 2023 hearings diet.

8.23 The room functions ascribed to rooms in key departments do not reflect the range of rooms requiring specialised ventilation described in SHTM 03-01.

For example, SHTM 03-01 provides specific requirements for Critical Care Areas and Neutropenic[11] patient wards. In the EM bedrooms and multi-bed rooms in the critical care department and the haematology/oncology ward (which accommodates neutropenic patients) respectively have been given the room function 'bedroom' and 'multi-bed ward'. The corresponding environmental data for bedroom and multi-bed ward does not meet the same air changes, pressure regime and filtration recommended for these more specialised areas.

8.24 The room function reference sheet did in fact contain a room function 'HDU' that corresponded with the recommendations contained in SHTM03-01, but this room function was not assigned to any of the rooms listed in the 'department sheets'.

8.25 Similarly, the room function 'operating theatre recovery' which corresponded with 'recovery room' in SHTM 03-01 wasn't assigned to the 'post-anaesthetic recovery' area. Instead, a different room function with less onerous ventilation specifications was used.

8.26 This version of the EM also retained the ventilation figures for single and multi-bed rooms which were potentially inconsistent with the air change rates and pressure regime outlined in HTM 03-01 and SHTM 03-01. This version of the EM does not refer explicitly to a mixed mode ventilation strategy although Guidance Note 5 states, "Ventilation air change rates and the use of natural ventilation in Patient Areas shall be reviewed throughout the detail design process to ensure a maximum internal temperature of 25°C (dry bulb) is not exceeded during normal occupancy."

8.27 The use of 4 ac/hr for bedrooms outside of Critical Care areas was referred to in H&K's report titled 'Ward Room Thermal Comfort Analysis' in February 2012, which showed that "the internal temperatures in ward rooms can be maintained at comfortable levels with 4 ACH (air changes per hour) of cooled fresh air supply mechanical ventilation and could be controlled in summertime

[11] Neutropenia is a condition characterised by abnormally low levels of white blood cells. The condition can increase the risk of infections.

between 22°C and 25°C maximum." The implication of this, according to the report, was that the design was not reliant on natural ventilation to keep the rooms at the required temperature. The report did not analyse "critical care and high dependency type ward rooms which receive air change rates in the region of 10 ACH".

8.28 In February 2012, H&K also produced a report titled "Reference Design Stage Section 6 SBEM Compliance Report Revision A". The report was prepared "in order to demonstrate that the proposed Reference Design envisaged energy approach and envelope performance criteria for the Royal Hospital for Sick Children/Department of Clinical Neurosciences building could be compliant with the 2010 version of Section 6 Energy of the Scottish Building Regulations." Section 6 outlines SG's carbon emission reduction requirements. According to the report these requirements could be met if, amongst other things, the "ventilation solutions as aligned to the RHSC-DCN Matrix" were incorporated into the design of the hospital.

8.29 In March 2012, H&K produced a paper titled 'M&E Reference Design Approach' which referred to the use of natural ventilation. It stated that:

> "The ventilation systems to the Hospital shall be designed in accordance with Health Technical Memorandum SHTM 03-01. Ventilation shall be provided to suit both the operational and statutory requirements of the development. Although the development will be designed to maximise the use of natural ventilation, it is intended that rooms will not be reliant on natural ventilation alone, unless they comply with maximum temperature limits listed in the RDS Environmental Matrices."

8.30 The paper included an 'Encode checklist' to check for compliance with SHTM 07-02 which is titled 'Encode - making energy work in healthcare' and provides guidance on reducing energy use in the healthcare sector. This contained questions about the use of natural ventilation and mixed mode ventilation:

3. Design integration		
Has every effort been made to include renewables?	✓	Reference Design PiP Sustainability Statement
Can thermal storage, heat recovery, free cooling he used to minimise services further?	✓	Refence Design - Included where beneficial and clinical functionality allows
Has natural ventilation been optimised to minimise services?	✓	As above

6. Ventilation		
Has every effort been made to use a natural ventilation strategy?	✓	where clinical function permits -NDP solution to be reviewed
If natural ventilation is not possible, can a mixed-mode approach be used?	✓	NDP solution to be reviewed
If mixed-mode ventilation is not possible then has every effort been made to use the most efficient ventilation in accordance with Health Technical Memorandum guidance	✓	NDP solution to be reviewed
Has every effort been made to avoid humidification and/or dehumidification?	✓	NDP solution to be reviewed
Has night cooling been considered?	✓	Considered not suitable for a 24hr acute hospital
For full fresh air systems, has ventilation heat recovery been incorporated?	✓	Reference Design Anticipated Approach
Where mechanical plant is essential, is it the most efficient possible?	✓	NDP solution to be reviewed
Is ductwork designed to give low pressure drops?	✓	NDP solution to be reviewed
Does the ventilation design have effective controls (including variable speed drive (VSDs), good zoning and local user controls)?	✓	NDP solution to be reviewed

The report indicates that mixed mode ventilation was always part of the strategy for the ventilation system.

9. Ensuring Compliance with SHTM03-01

9.1 MML have advised the Inquiry Team that prior to the reference design team's departure from the project, MML sought assurance that the Reference Design had been developed in compliance with applicable guidance (see paragraph 4.11 of the Provisional Position Paper on the Reference Design).

9.2 On 28 February 2012, Andy Duncan of MML wrote to Thomas Brady of Davis Langdon to seek this assurance. The email stated:

> "There is an action on the Reference Design Team to confirm that the Reference Design complies with NHS Guidance and key legislation. I attach the requirement schedule for each of the Reference Designers to respond to. We require a statement from each designer to confirm that the Reference Design complies with the Requirements Schedule. Should it not fully comply then each designer shall confirm that the Reference Design complies with the Requirements Schedule with a schedule of derogations. We will need the compliance statement from the Reference Designers before they leave the project to work for potential bidders."

9.3 On 16 March 2012, Nightingale Associates, BMJ Architects, H&K and Arup issued a joint statement in response to this email: "relating to compliance generally and derogations." The document stated:

> "issues relating to compliance shall only be relevant in so far as the proposals have generally been required to be developed to an equivalent level of RIBA Stage C."

9.4 Beneath the heading 'Reference Design Compliance Statement Requirement', the following text appears:

> "Health Technical Memoranda and Scottish Health Technical Memoranda - We have followed SHTMs and also HTMs when there is no Scottish

equivalent."

A full list of derogations is then included in the letter. There are no derogations relating to SHTM 03-01.

9.5 The Inquiry Team understands that this was the only occasion where environmental information within the Reference Design was officially reviewed and signed-off for compliance with healthcare guidance. The assurance was provided in March 2012. However, the version of the EM that was issued with the ITPD was not completed until 19 September 2012.

9.6 It is not clear to the Inquiry Team what basis the reference design team had for providing the assurance that they did. In this paper, the Inquiry Team has highlighted potential inconsistencies between the environmental matrix and published guidance including SHTM 03-01. This issue will require to be explored at the hearing commencing in April 2023.

10. The Environmental Matrix during Competitive Dialogue

10.1 The 'Reference Design Envisaged Solution – RHSC/DCN Environmental Matrix version third issue' was shared with prospective tenderers who were invited to take part in competitive dialogue. Competitive dialogue is a method to identify the bidder whose proposals will best satisfy the contracting authority's requirements. This is accomplished through regular meetings and communications with prospective tenderers to discuss and clarify the requirements for the project and potential proposals to meet them.

10.2 At the beginning of the process, prospective tenderers were issued with the ITPD, which was made up of four separate volumes and multiple appendices. Two volumes of the ITPD are particularly relevant with regard to the EM. Volume 1 contains instructions to bidders, specifically: "background information on the Project, the conditions of participation, the arrangements for the Dialogue, the Informal Submissions that Bidders must provide during

the Dialogue Period, Draft Final Tender requirements, envisaged Final Tender requirements and how the Board intends to evaluate the Final Tender, award the Project and communicate with Bidders." Volume 3 contains the Board's Construction Requirements. Volume 3 was accompanied by a suite of documents making up the appendices.

10.3 An 'Important Notice' at the start of ITPD volume 1 explained that:

> "Any summaries or descriptions of documents or contractual arrangements contained in any part of the Invitation cannot be and are not intended to be comprehensive, nor any substitute for the underlying documentation (whether existing or to be concluded in the future), and are in all respects qualified in their entirety by reference to them."

10.4 Paragraph 2 was entitled "Pre-construction phase". It stated that:

> "2.2 Room layouts are to be prepared using ADB to include fully loaded 3D views"

10.5 In ITPD Volume 1, the EM is defined as "the matrix contained in ITPD Volume 3, Schedule Part 6, Section 3, Appendix C". ITPD Volume 3 defines the EM as:

> "…the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department/unit/ space/area. The title is Reference Design Envisaged Solution – RHSC/ DCN Environmental Matrix version third issue as set out in Appendix C of this Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters) (as varied, amended or supplemented from time to time in accordance with the Project Agreement)"

10.6 The EM is referred to twice in Volume 1: in Section 2 "Technical Overview" and Appendix A (ii) Submission Requirements.

10.7 Section 2, which contains an overview of the technical requirements of the project, explains that the specific requirements for the facilities are set out in

the Board's Construction Requirements, but that "certain elements of the design as they relate to Operational Functionality are mandatory". The following sub-sections go on to describe mandatory elements as well as the indicative elements of the reference design. The mandatory elements, listed in Appendix E, relate to minimum room areas, points of access, room layouts and adjacencies.[12]

10.8 Section 2.5.1 addresses the Schedule of Accommodation and Reference Design Schedule of Accommodation. Section 2.5.2 addresses Room Layouts. In these sections, bidders were informed of which design documents and drawings had already been included in the Reference Design, and what the bidders would need to develop themselves during Competitive Dialogue, and, if they were selected as preferred bidder, before Financial Close. Paragraph 2.5.2, explains that bidders would be required to develop 1:50 layout drawings for specific rooms in the hospital. A list of these rooms is provided in the document.

10.9 Following on from that, paragraph 2.5.3 on Room Data Sheets states:

> "Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the 'Room Information') are detailed in a combination of the following documents:
>
> - The Board's Construction Requirements;
> - The Environmental Matrix;
> - The Schedule of Operational/Design Notes;
> - The Equipment Schedule;
> - The Equipment Responsibility Matrix;
> - The Draft Schedule of Accommodation; and
> - The Operational Functionality elements of the Reference Design.
>
> During Dialogue Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings have been prepared. For the avoidance of doubt this shall

[12] Which areas need to be close to other areas for the most effective patient flows.

include all Key Rooms and Generic Rooms in addition to those rooms identified in the table at paragraph 2.5.2 above. The Room Data Sheets will form part of the Bidders proposals. The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close."

10.10 Appendix A (ii) – Submission Requirements, sets out what bidders were required to include in their technical submissions, and how these were to be set out. Technical submissions for Approach to Design and Construction (Section C) would ultimately form part of the preferred bidder's proposals in accordance with the NPD Project Agreement.

10.11 The EM is mentioned in C8, M&E Engineering Design Proposals. C8.1 states that

"Bidders must submit proposal setting out engineering services design for each element of the scheme in sufficient detail to demonstrate compliance with the Board's Construction Requirements."

10.12 C8.2 asks bidders to set out how their design would be developed to meet certain requirements and asks for an 'environmental conditions/room provisions matrix for both mechanical and electrical services for each room in the Facilities'. C 8.3 states:

"Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis."

Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD stated: "*Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…except to the extent expressly stated to the contrary in the Board's Construction Requirements or the Service Level Specification, in compliance with all applicable NHS Requirements".* NHS Requirements was defined as follows: *"means: (a) in relation to the Works, Health Building Notes and Health*

Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements"

10.13 In Volume 3, which set out the Board's Construction requirements, the EM is mentioned in relation to general construction requirements and mechanical and electrical engineering requirements. It is defined as:

> "…the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department/unit/ space/area. The title is 'Reference Design Envisaged Solution – RHSC/ DCN Environmental Matrix version third issue' as set out in Appendix C of this Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters) (as varied, amended or supplemented from time to time in accordance with the Project Agreement)"

10.14 Volume 3 states:

> "Paragraph 2.3
>
> *"In addition to the standards listed in paragraph 2.4 of this Sub-Section C, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:*
> *…*
> *h) HTM and SHTM*
>
> Paragraph 5 General Construction Requirements
> 5.3 Thermal Requirements,
> c) The building fabric shall include passive design measures to limit summer temperatures to figures given within the Environmental Matrix;
>
> Paragraph 8 Mechanical & Electrical Engineering Requirements
> Project Co shall provide the Works to comply with the Environmental Matrix.
> …
> Project Co shall take cognisance of all the building services implications of the requirements described in the Board's Construction Requirements of

this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

For the avoidance of doubt the hierarchy of standards and advice detailed in paragraph 2.5 shall apply to this paragraph 8.”

10.15 Paragraph 8.1 also specifies minimum engineering standards and includes reference to SHTM 03-01, as well as “publications in paragraph 2 of this Sub-Section C Project Wide Requirement” which includes amongst others requirements “Adherence to the requirements set out in CEL 19 (2010) A Policy for Design Quality for NHSScotland, 2010 Revision published by the Scottish Government”.

10.16 Paragraph 8.5.2 is entitled ‘Thermal Comfort’. It states that:

“Where maximum internal summer time temperature calculations indicate that the internal temperature will exceed those limits set out in the Environmental Matrix, Project Co shall provide means of reducing the temperature rise.”

10.17 Clinical Output Based Specifications were also included within the ITPD Volume 3 (Board’s Construction Requirements), Schedule Part 6, Section 3, Sub-Section D (Specific Clinical Requirements). The Inquiry Team understands that these seek to describe the clinical requirements for different parts of the hospital. The Clinical Output Based Specification for Critical Care Areas contained the following information is set out in paragraph 1.8:

- Flexibility in the use of the Critical Care beds for both High Dependency and Intensive Care is key to maintaining efficient use of high specification beds. All three critical care areas must be co-located

- Single cubicles will be used for privacy or isolating ordinary infectious conditions

- Lobbied single bed isolation cubicles are required for both source

and protective isolation of patients and they all require to have identical design of pressure control with positive pressure lobbies with filtered air, and negative extraction cubicles. It is required that contaminated air must not flow back into any of the open Critical Care areas. It is required that the lobby must be joined to the room at the foot end of the bed.

- All PICU and HDU bed spaces are required to be of the same specification to allow greatest flexibility of use.

10.18 The Clinical Output Based Specifications for Critical Care also listed the following design guidance:

- HBN 23: Hospital Accommodation for Children & Young People
- HBN 57: Facilities for Critical Care
- SHTM 2025: Ventilation
- SHFN 30: Version 3: Infection Control
- SHTM 61: Flooring
- HBN 14: Pharmacy
- Paediatric Intensive Care Society Standards Document published in 2001

10.19 The ITPD was issued to bidders on 11 March 2013, marking the start of competitive dialogue, which lasted until 13 December 2013 when bidders were invited to submit their final tender. By the time that the ITPD was issued, SHTM 2025 had been superseded by SHTM 03-01.

10.20 The relevant draft proposals of tenderers were submitted in April 2013, for review and feedback.

10.21 M&E Engineering was discussed at Dialogue Meeting 2, which was held in May. It is not clear to the Inquiry Team whether there were any significant discussions with tenderers regarding the EM during the competitive dialogue stage. This issue will require to be explored at the April 2023 hearings.

10.22 The Inquiry Team understands that one bidder – Bidder C – submitted a marked up version of the EM during the procurement process. This sought to

amend some of the entries to reflect Bidder C's ventilation strategy, 'to enhance the proposed design criteria or to adjust values based on intended room use'. Bidder C changed the air change rates for single bed cubicles and open plan bays in the PICU (Paediatric Intensive Care Unit) and Low Acuity department sub-groups from 4 ac/hr to 10 ac/hr. For single bed cubicles and open plan bays in the Neo-Natal and High Acuity department sub-groups Bidder C modified the air change rates to 6 ac/hr.

10.23 During Competitive Dialogue Bidder C had also requested to "explore the acceptability" of their ventilation strategy which would deliver "a lower air flow than the 6 air changes/hour specified in SHTM 03" and "review the specialist ventilation strategy for clinical areas" such as isolation rooms, including the "application of isolation room guidance to Critical Care single rooms". In their final tender Bidder C wrote, "we have proposed a lower air flow of four air changes/hr (which have been agreed in dialogue meetings, despite being lower than those specified in SHTM 03)…These will result in a similar air flow to the provision of four air changes/hr included in the reference design."

10.24 Bidders were required to submit a list of assumptions and derogations outlining where their proposals varied from the Board's Construction Requirements. Bidder C included a "clarification" with respect to Section 8: Mechanical & Electrical Engineering Requirements: "Project Co shall provide the Works to comply with the Environmental Matrix", referring NHSL to their own (Bidder C's) amended environmental matrix.

10.25 It is not clear whether this was discussed by NHSL and its advisers. It is also not clear to the Inquiry Team why all tenders were deemed to comply with the specified criteria when one tenderer was offering to provide a different solution to that set out in the EM issued with the ITPD and ISFT. These issues will require to be explored at the April 2023 hearings.

11. The Environmental Matrix at Final Tender Stage

11.1 IHSL submitted its final tender on 13 January 2014. IHSL was selected as the preferred bidder by NHSL. In its final submission for section C8 'Clarity, Robustness and Quality of M&E Engineering Design Proposals' it stated that the "…Mechanical, Electrical and Public Health Services are designed to provide efficient, safe, secure services in accordance with the Brief, British Standards, CIBSE guides and NHS guidance documents".

11.2 IHSL also stated that the outline designs have "…been reviewed for compliance with SHTMs" (C8.1 i).

11.3 In section C8.2, the EM is addressed:

> "C8.2 (x) Environmental Conditions Room Matrix
>
> The mechanical and electrical services shall be provided in accordance with the reference design environmental matrix and we shall provide an addendum matrix for any rooms on an exception basis highlighting any changes at preferred bid stage.
> …
> Environmental Conditions:
> We have followed the reference design and have utilised the reference design matrix to compile the room environmental proposal drawings…
>
> The room temperature set points, air change rate and ands [sic] shall be in accordance SHTM 03 [sic] and lighting information as CIBSE guide LG2."

11.4 A table was included that sets out typical rooms. HDU is specified as requiring 10 air changes per hour. That was not replicated in all the entries in EM although this was stated in the Guidance Notes section at the front and there were a number of entries stating "See Guidance Notes".

11.5 Section C8.3 stated:

"C 8.3 Environmental Matrix

As indicated above no changes proposed at this time nor envisaged in the future but we will continue to review and advise back. The solutions are refenced on the Heating, Ventilation and Cooling strategy drawings, sequence 521, 524 and 525 recorded in AP1.1 Section 5.1 Mechanical Drawing Schedule."

11.6 IHSL did not submit their own 'room conditions matrix' in the form of a marked up version of the 'reference design envisaged solution EM' as they did not propose any changes.

11.7 IHSL described a mixed mode ventilation strategy in their final tender submission for Building Services Deliverables at paragraph 5.9. IHSL sought to maximise natural ventilation where appropriate including "examples of simulations that were carried out to reach a final solution". One of those referred to an approach for a single bedroom, as follows:

"Single Bedroom Ward, South Facing Exposed (Summer) with mixed mode ventilation
Opening windows – restricted opening to 100mm.
Supply air provided if the room air temperature is great than 25°C.
External air 4 ACH cooled to 18°C.
No reliance on uncontrolled infiltration for cooling."

11.8 It was proposed that all ward rooms adopt a mixed mode approach (paragraph 5.9.6.4 of IHSL's submission for 'Building Services Deliverables).

11.9 Draft room data sheets were produced by IHSL in October 2013. These concerned certain key and generic rooms. The room data sheets for rooms in Critical Care/HDUs appear to replicate the environmental data contained in the EM which is potentially inconsistent with SHTM 03-01. For example, the

room data sheet for area B1 'PICU and HDU's' stated a value of 4 air changes per hour for "4 beds low acuity" notwithstanding that the room was in a High Dependency/Critical Care area of the hospital. Table A1 of SHTM 03-01 indicates that such areas should have 10 air changes per hour. It is not clear to the Inquiry Team if these were submitted along with the final tender.

11.10 IHSL stated that the ventilation system complied with published guidance including SHTM03-01:

> "The ventilation systems to the Hospital are designed in accordance with Scottish Health Technical Memorandum [sic] SHTL 03-01. Ventilation shall be provided to suit both the operational and statutory requirements of the development" (paragraph 5.9.7)
>
> "The M&E specifications shall comply with SHTMs and general healthcare guidance notes…" (paragraph 5.12.2)

11.11 It is not clear to the Inquiry Team how IHSL could have stated that there would be compliance with SHTM 03-01 and compliance with the EM (given that the EM contained values – including critical care areas – that do not appear to comply with SHTM 03-01). This issue will require to be explored with witnesses at the hearing commencing in April 2023.

12. The Environmental Matrix in the period from the Appointment of the Preferred Bidder to Financial Close

12.1 After being selected as the preferred bidder, IHSL became responsible for developing the design of the ventilation system. The Inquiry Team understands that the EM was not to be included in the Project Agreement as reviewable design data as the preferred bidder was to develop a full set of room data sheets before financial close. Therefore, the EM should have been superseded as a briefing and design tool by financial close. However, the requirement for a full set of room data sheets to be produced by financial close was waived by NHSL and the EM came to be included as reviewable design data within the contract. The reasons for this decision being taken will require to be explored with witnesses at the hearing in April 2023. As a result of the decision, the Inquiry needs to understand the development of the EM in the period to financial close.

12.2 On 3 July 2014, Multiplex requested a copy of the EM which had been prepared by NHSL and which formed part of the ITPD. Ken Hall, M&E Design Manager of Multiplex asked specifically for a version in Excel format to allow Stewart McKechnie of TUV SUD/Wallace Whittle to populate the matrix with any changes. MML acceded to the request on 11 July 2014.

The Minutes of the Design Steering Group, dated 14 July 2014, item 1.3 record a review by Mott MacDonald and the preferred bidder of the RDS and Environmental Matrix

12.3 According to the minutes of a Project Management Group Meeting held on 27 August 2014, Liane Edwards of ~~MML~~Multiplex, “advised that during a review of the Environmental Matrix a number of discrepancies have been uncovered impacting on RDS [Room Data Sheet] production and requested input from NHSL. IHSL to raise RFI”. RFI is a commonly used acronym for ‘Request for Information’ literally, an information request to another party usually using a

standardised template such as a register.

The minutes of Project Management Group Meeting, dated 27 August 2014 also note at item 1.2 an action with NHSL to "review and respond to next iteration of RDS template

12.4 The minutes of the Project Management Group meeting on 3 September 2014 note, 'RDS [Room Data Sheet] schedule on the basis of generic and specialist rooms to be proposed by IHSL for agreement by Board'.

The Minutes of Project Management Group Meeting, dated 03 September 2014, also note that the Environmental Matrix had been discussed at the Design Steering Group on Monday 01 September 2014

12.5 At a Project Delivery Group (PDG) meeting attended by representatives from NHSL and IHSL on 12 September 2014, it was noted:

> "RDS list with Board for review. Board have comments and will forward shortly. Target approval 30th September 2014."
>
> 'Environmental Matrix: IHSL to confirm proposed format and integration with RDS. It was noted the IHSL environmental matrix is to be read in conjunction with RDSs as available at FC and supplemented through the RDD process during the construction phase.'

12.6 Draft room data sheets dated 18 September 2014 were prepared by HLM, a member of IHSL's consortia. These show single cubicles and open plan bays to have 4 ac/hr which corresponds with the 'department sheets' in the EM but is potentially inconsistent with SHTM 03-01. These contain some differences from the room data sheets submitted during dialogue in October 2013. Specifically, ventilation type has been changed from central supply air to natural and central supply air for rooms other than the isolation room. The single bed cubicle and 'open plan bay: 3 cots' were also shown to have extract via en-suite.

On 19 September 2014, the Room Data Sheets for Financial Close were provided to the Board, for formal review and sign off.

The Design Steering Group Action Tracker, issue date 24 September 2014 noted at Item 23 that NHSL had issued comments to IHSL on the Environmental Matrix for review

The Design Steering Group Action Tracker, issue date 24 September 2014, recorded at item 05 that the content of the RDS has been agreed with the Board and that they had been issued for review.

Minutes of Project Management Group Meeting, dated 01 October 2014, note at item 2.2 that a review of RDS was to be undertaken by NHSL's Janice Mackenzie.

At the PDG Meeting of 27 October 2014 it is noted at item 5.6 that the RDS and Environmental Matrix were to be added to the Completion Criteria

12.7 On 25 September 2014, Colin Macrae, Senior Building Services Engineer at MML emailed Graeme Greer and Maureen Brown (MML) with initial comments on IHSL's EM, which had been prepared by Wallace Whittle and is 14 September 2014. These identify a number of areas where the figures provided on the EM differ from those stated in SHTM 03-01. For example, bedroom air changes per hour were stated to be four when SHTM03-01 stated six. An issue around the pressure regime for bedrooms was also identified. Wallace Whittle issued a revised EM on 29 September 2014.

12.8 This iteration of the EM was in Excel format. The guidance notes section was retained. A version of the RFRS was included in a tab called 'Room Function Reference Sheet'. This was not an exact copy of the version issued with the ITPD and ISFT. Changes made by Wallace Whittle included:

12.8.1 The room function 'HDU' was removed from both of the Room Function Reference Sheets. It is not clear to the Inquiry Team why this

reference was removed. It resulted in there being no reference to a high dependency unit or to critical care in the 'Room Function' section of the 'Room Function Reference Sheet'.

12.8.2 The room function 'operating theatre recovery' was also removed from both RFRS.

12.8.3 The environmental data provided for Recovery Bay/Recovery Room was changed in the RFRS in the 'All Rooms' Tab to reflect the air change rates and relative pressure contained in SHTM 03-01, although the figures for temperature and minimum filtration remained the same as the previous version.

12.8.4 The Room Function Reference Sheet contained in the 'All Rooms' tab also introduced changes to the specifications for Bedroom and Multi-bed Ward room functions, including changes to the temperature, ventilation type (natural and central supply air), extract (via en-suite) and relative pressure (positive to en-suite).

12.8.5 A column was added for 'ADB code'. An 'ADB code' was included for some rooms. However, not all rooms contained an 'ADB Code'.

12.9 The 'All Rooms' tab contained the following information (with some changes such as the deletion of 'HDU' highlighted). Specifications recommended by SHTM 03-01 and SHPN 04 supplement 1 are in bold where they differ from those in the RFRS.

Tab: All Rooms

Room Function	ADB Code	Ventilation					Notes
		Type	Supply Ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
Bedroom		Natural and Central Supply Air (previously 'central supply air'. SHTM 03-01 recommends central supply air)	4 **(6)**	Via en-suite (previously '0')	Positive to en-suite (previously 'positive', SHTM 03-01 recommends **balanced or negative)**	G4	See Guidance Notes
Changing Facilities		Central Supply and Extract	5	4	Positive	G4	
HDU **(removed)**		Central Supply Air	10	0	Positive	F7	See Guidance Notes
Multi-bed Wards[13]		Natural and Central Supply Air (previously 'central supply air' SHTM 03-01 recommends central supply air)	4 **(6)**	Via en-suite (previously '0')	Positive to en-suite (Previously 'positive' SHTM 03-01 recommends **balanced or negative** for single bedrooms)	G4	See Guidance Notes
Isolation lobby		Central Supply	69	0	Positive	F7	See Guidance Notes

[13] SHTM 03-01 does not specify requirements for 4 bed rooms, however ADB room data sheets c.2011 show multi-bed wards to have same requirements as Single Room

Room Function	ADB Code	Ventilation					Notes
		Type	Supply Ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
Isolation bedroom		Supply via lobby	10	0	Positive (SHPN 04 suppl 1 states pressure differential to corridor should be **nominally 0**)	F7	See Guidance Notes
Operating Theatre Recovery **(removed)**		In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	Balanced	F7	See Guidance Notes
Recovery Bay/Recovery Room		Central Supply and extract	15	15	Balanced	G4 **(F7)**	See Guidance Notes

12.10 In the department sheets, contained in the 'All Rooms' tab, the column for Department Sub-Group was removed. A column was added for 'ADB code'. The error in relation to the isolation room lobby in Critical Care was corrected. The table below shows the remaining potential inconsistencies with SHTM 03-01 and also marks up the erroneous inclusion of 'en-suite' to rooms in Critical Care, since these were not required in this department.

Dept Name	Room Name	Room Function	ADB Code	Ventilation					Notes
				Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
B1 PICU and HDUs	Open Plan Bay (4 beds)	Multi-bed Wards **SHTM 03-01: Critical Care Areas. No corresponding room function on RFRS**	B1609-01 (also B1609-02)	Natural and Central Supply Air **(Supply Air)**	4 **(10)**	Via en-suite **(no en-suite)**	Positive to en-suite **(no en-suite)**	G4 **F7**	See Guidance Notes
	Single Bed Cubicle	Bedroom **SHTM 03-01: Critical Care Areas. No corresponding room function on RFRS**	B1401	Natural and Central Supply Air **(Supply Air)**	4 **(10)**	Via en-suite **(no en-suite)**	Positive to en-suite **(no en-suite)**	G4 **F7**	See Guidance Notes
	Single cot cubicle	Bedroom **SHTM 03-01: Critical Care Areas. No corresponding room function on RFRS**	B1421	Natural and Central Supply Air **(Supply Air)**	4 **(10)**	Via en-suite **(no en-suite)**	Positive to en-suite **(no en-suite)**	G4 **F7**	See Guidance Notes

Dept Name	Room Name	Room Function	ADB Code	Ventilation					Notes
				Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
	Open Plan Bay (3 Cots)	Multi-bed Wards **SHTM 03-01: Critical Care Areas. No corresponding room function on RFRS**	B1407-01	Natural and Central Supply Air **(Supply Air)**	4 **(10)**	Via en-suite **(no en-suite)**	Positive to en-suite **(no en-suite)**	G4 **F7**	See Guidance Notes
C1.1 Medical Inpatients	Single Bedroom	Bedroom	B0305-01	Natural and Central Supply Air	4 **(6)**	Via en-suite	Positive to en-suite **balanced or negative**	G4	See Guidance Notes
	4 Bed Room	Multi-bed Wards[14]	B0405	Natural and Central Supply Air	4 **(6)**	Via en-suite	Positive to en-suite **balanced or negative**	G4	See Guidance Notes
C1.4 Haematology/ Oncology Inpatients and Daycases	Single Bedroom	Bedroom **SHTM 03-01: Neutropenic Patient ward. No corresponding room function on RFRS**	B0305-01	Natural and Central Supply Air **Supply Air**	4 **(10)**	0	Positive to en-suite	G4 **(H12)**	See Guidance Notes

[14] SHTM 03-01 does not specify requirements for 4 bed rooms, however ADB room data sheets c.2011 show same requirements as Single room

Dept Name	Room Name	Room Function	ADB Code	Ventilation					Notes
				Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
	Multi Bed Room: day care, 4 beds & 2 chairs	Multi-bed Wards **SHTM 03-01: Neutropenic Patient ward. No corresponding room function on RFRS**	B0405-01	Natural and Central Supply Air **Supply Air**	4 **(10)**	0	Positive to en-suite	G4 **(H12)**	See Guidance Notes
P1 Combined theatres	Post Anaesth-etic Recovery	Recovery Bay/Recovery Room		Central Supply and Extract	15	15	Balanced (this differs from the RFRS)	G4 **F7**	See Guidance Notes

12.11 The notes column still contained the instruction ‘see Guidance Notes’. The guidance notes contain requirements that differ from the figures provided in the department sheets. Specifically, Guidance Note 15 states:

> **“HDU bed areas** - Design Criteria - HBN 57 gives specific guidance as well as SHTM 03-01 - esp Appendix 1 for air change rates – 10 ac/hr Supply, 18°C to 25°C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions).
>
> The department should be air conditioned and controlled on a zonal basis.
>
> Central AHU plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).
>
> **Post theatre recovery areas** - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates – 15 ac/hr S&E , 18°C to 25°C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions).
>
> **Critical Care areas** - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates – 10 ac/hr Supply , 18°C to 25°C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions). NHSL may require specific rooms to have a control range up to 28°C
>
> Central Air Handling Plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

12.12 As in the previous ‘reference design’ version of the environmental matrix, the air change rates and minimum filtration for the Critical Care areas

described in the department sheets are potentially inconsistent with SHTM 03-01. The Wallace Whittle version contains further detail relating to extract via en-suite and use of natural ventilation, which the Inquiry Team understands may not be suitable for rooms in Critical Care/HDU.

12.13 This version of the EM retained the ventilation figures for non-Critical Care single and multi-bed rooms which were potentially inconsistent with the air change rates and pressure regime outlined in SHTM 03-01, although natural ventilation is referred to in the column for ventilation type, and ‘extract via en-suite ’ is included.

12.14 The air change rates for post-anaesthetic recovery were now consistent with those recommended in SHTM 03-01, but the minimum filtration figure was inconsistent. The pressure regime was consistent with SHTM 03-01 but differed from what was outlined in the room function reference sheet.

12.15 On 14 October 2014, MML sent Multiplex a copy of NHSL's technical comments on the draft environmental matrix. The comments noted that the air change rates and pressure regime for bedrooms provided in the environmental matrix differed from SHTM 03-01 and that ‘Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr’.

12.16 Although the comments note an error with figures for Recovery Room, these had in fact already been changed to 15 ac/hr in the ‘All Rooms’ tab but had not been changed in the ‘room function reference sheet’ tab.

12.17 No issues were raised by NHSL in relation to the values set out in the EM for critical care areas.

12.18 On 28 October 2014, Multiplex forwarded Wallace Whittle's response to the initial technical comments to MML. An extract of the relevant points are copied below (Wallace Whittle's response being the right-hand column in the table).

The Board has the following initial technical comments on the draft 1 of the Environmental Matrix	**IHSL Update 27 October 2014**
1. The submitted Environmental Matrix does not reflect the current Schedule of Accommodation, e.g. theatres and DCN acute care changes are not included. IHSL to provide up to date Environmental Matrix.	Theatre requirements are contained within the guidance notes section. The document will be updated to include these rooms as per item 5 below.
2. Issues within the guidance notes relating to:	
a. Environmental Matrix still dated as version 13 issued 19th September 2012	Date has been removed.
b. Humidification, the requirement is for the space for future installation,	Guidance notes amended accordingly.
c. HK Design reference to be removed	Reference removed.
3. The detail contained in the Clinical Output Specification requires theatre temperatures to be able to be raised to 31°C for certain operations. IHSL to reflect this in the Environmental Matrix.	Guidance notes amended accordingly.
6. SHTM 03-01 clause 2.11 states;	
“Internal temperatures in patient areas should not exceed 28°C db for more than 50 hrs per year”, however the Board added an additional BCR clause regarding the 25°C as clarified below:	Rooms at 25°C are identified within the matrix.
“Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of any room or area does not exceed the maximum acceptable level of 25°C for more than 50 hours per annum”.	This is not agreed for all rooms. Refer to Environmental Matrix for individual room temperatures.
Further review and development of the Environmental Matrix is required to clarify the following:	The BCR’s allow for several rooms to go to 28 deg C and we have not received a change order to reduce the temperature in these rooms.

The Board has the following initial technical comments on the draft 1 of the Environmental Matrix	**IHSL Update 27 October 2014**
a. There are some rooms at 28°C which are provided with comfort cooling.	We understand that Internal temperatures in these rooms should not exceed 28°C db for more than 50 hrs per year
b. There are areas/rooms in the Environmental Matrix that contradict the above BCR clause, hence once IHSL produce an updated Environmental Matrix, further discussion is required with the Board to confirm which rooms or areas are not going to meet the Clause.	As indicated during the workshops we do not consider this as a contradiction. The BCR has two clauses one for specific rooms based on the 25°C and another for rooms on the 28°C criteria.
7. Bedrooms 4 ac/hr, SHTM says 6 ac/hr Bedrooms have no extract Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure The supply air to a bedroom has to be balanced with extract e.g.Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr = 273.7m3 / hr En-suite area 5m2 and 2.4m high = 12.0m3 x 3ac/hr = 36m3 / hr To achieve balanced pressure within bedroom extract required = 276.3 – 36 = 237.6 m3/hr	The scheme is based on the Reference design throughout which is essentially mixed mode with openable windows and 2/3rds mechanical supply air to all bedrooms. This gives physiological benefits with access to fresh air control by user and obvious Energy Benefits. We have amended the environmental schedule to show the room being balanced which is provided by opening the window.
8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr	15 ac/hr utilised with the current design, matrix amended accordingly

12.19 These comments show that NHSL had highlighted to IHSL potential inconsistencies between the EM and:

- the current Schedule of Accommodation (a document listing all the rooms in the hospital, along with room sizes);

- the Clinical Output Specifications (which describes the clinical function and requirements for departments);
- the Board's Construction Requirements; and
- SHTM 03-01.

12.20 The comments also indicate a difference of opinion between NHSL and IHSL on the correct interpretation of NHSL's published requirements.

12.21 On 31 October 2014, Multiplex issued an updated version of the EM to MML. The guidance notes section stated that:

> "1. This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria Elements as described on these sheets"

12.22 The Inquiry Team notes that by financial close, room data sheets should have been prepared for all spaces in the hospital. It is not therefore clear why the EM would still be required at financial close. It is not clear when a decision was taken to dispense with the requirement for all room data sheets to be completed by financial close or why this decision was taken.

12.23 A meeting with the subject 'Environmental Matrix NHSL Comments Feedback' was convened on 11 November 2014. The meeting was attended by representatives from Multiplex, Wallace Whittle, NHSL and MML. Notes of the meeting were prepared by MML and issued by e-mail on 11 November 2014. Bullet 4 related to the pressure regime for single bedrooms and stated, "Detailed proposal awaited on bedroom ventilation to achieve balanced/negative pressure relative to corridor".

12.24 NHSL's Infection Control team and technical adviser MML expressed concern that IHSL's proposal for single bedroom ventilation was not compliant with SHTM 03-01. Specifically, there was concern around the pressure regime, and the reliance on opening windows to maintain the required balanced pressure regime.

12.25 On 12 November 2014, Colin Macrae (MML) asked his colleague William Stevenson (MML) for comments on a summary of IHSL's ventilation strategy for single rooms. The proposal involved the opening of windows. The document attached to the email states:

"Single bedroom ventilation

Project Co's current ventilation strategy for the above room is as follows:

Supply air to bedroom at 4 ac/h and 17m2 x 2.4m high = 40.8 m3 x 4 ac/h = 163.2m3/h

Extract air from en-suite at 10 ac/h and 4.5m2 x 2.4m high = 10.8 m3 x 10ac/h = 108m3/h

This leaves an excess of 55 m3/h supply air to be discharged by other means to achieve balanced ventilation within the bedroom. Project Co have stated that this is satisfied by opening the window or the trickle vent on the window if the window is closed.

Extract from the corridor will reduce the resultant corridor pressure.

SHTM 03-01 Table A1

Room	Ventilation	Air change rate	Pressure	Comment
Single bedroom	supply/extract/natural	6	balanced or negative	
En-suite	extract	3	negative	

Mott MacDonald concern is that the room will be at a slight positive pressure relative to the corridor which would allow infection such as MRSA or Norovirus to spread."

12.26 William Stevenson responded on 12 November 2014 stating:

"I would tend to agree with your comments.

There is an excess of positive pressure air in the bedrooms.

Project Co are stating that the excess air will pass through the ventilator.

That would appear to imply that the ventilator would be required to be open all year round which would have an impact on energy targets – heat would be lost through the ventilators rather than recovered through the heat recovery systems?

There are still issues over them achieving the required 6 air changes in the room as per SHTM 03-01."

12.27 On 13 November 2014 this email was forwarded from Graeme Greer (MML) to Brian Currie (NHSL). Mr Greer stated:

"Further to the Environmental Matrix meeting on Monday, please refer to the email below and attached that summarised the issue with the single bedroom ventilation.

As discussed at the Environmental Matrix meeting we added the following comment on the Environmental Matrix,

'Detailed proposal awaited on bedroom ventilation to achieve balanced/negative pressure relative to corridor.' However this may come down to an dispute over the SHTM requirement/ Infection Control requirements.

Might be worth raising this again at the RDD meeting?"

12.28 'RDD meeting' refers to meetings held to discuss Reviewable Design Data, which would be included in the Project Agreement Schedule Part 6 (Construction Matters) Section 5 (Reviewable Design Data), referred to as the 'RDD Schedule'. Reviewable Design Data refers to information, such as design deliverables and Project Co proposals, that had not yet been approved by the Board of NHSL and were subject to amendment in accordance with Board comments.

12.29 On 13 November 2014, Graeme Greer also emailed Brian Currie regarding the revised payment mechanism and GSU[15] table. Attached to the email was a report regarding a review of IHSL's Schedule of Accommodation (SoA) and Environmental Matrix, which MML had undertaken with a view to updating the Gross Service Unit Table (GSU) for inclusion in Schedule Part 14 (Payment Mechanism). The purpose was to mitigate the risk of using inaccurate data in the Payment Mechanism. MML found that IHSL's SoA revealed differences between the reference design and IHSL's design, and also did not reflect the current 1:200 drawings for the hospital. For example, the SoA referred to rooms that had been removed since the reference design, and did not include some rooms that had since been added to the design. Thus, the SoA was out of date. The problems highlighted with the EM, specifically in relation to IHSL's SoA and Payment Mechanism, included:

- The EM issued is closer to the Hulley and Kirkwood Reference Design SoA, hence is out of date
- Environmental Parameters can therefore not be set for rooms that do not exist

MML stated that the "EM therefore needs to be updated once the SOA has been updated."

12.30 Following an RDD Meeting on 13 November 2014, the requirement to update

[15] GSU - Gross service units. Relates to energy consumption.

the Schedule of Accommodation "to reflect all of the individual elements of the proposed Facilities in accordance with Good Industry Practice" was included in the 'RDD Schedule'.

12.31 The Inquiry Team understands that on 19 November 2014, a Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) (HAI-Scribe) meeting was held at which it was recorded that the ventilation system design was not fit for purpose given the potential for infection spread via ventilation systems. The reason stated was that some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Drawings and further information were require to fully understand if there was a risk/issue.

12.32 In an email of the same date, Liane Edwards-Scott emailed Ken Hall stating that: "Motts have just informed the HAI scribe that the vent system doesn't comply with infection control because it relies on the windows being openable- can you shed some light or offer opinion?". Ken Hall forwarded this email to Stewart McKechnie, stating:

> "Can you treat as priority the bedroom sketches for the vent before the door closes and we have no alternative but to comply with infection control requirements.
>
> Realistically I think we need:
>
> 1.0 Interpretation of SHTM for bedrooms
> 2.0 Air flow movement under a few scenarios, natural vent etc
> 3.0 And how this impacts on the adjacent corridor ventilation
>
> We will need to chat it through internally then table with infection control."

12.33 Mr McKechnie, of TUV SUD Ltd, replied stating "Told you wouldn't wait till RDDDDDDDDD !!!" [sic].

12.34 TUV Sud/Wallace Whittle produced a draft report for air movement to single bedrooms dated 27 November 2014. A second draft was produced on 12 January 2015, titled 'RHSC-DCN Edinburgh Air Movement Report For Single Bedrooms (Draft)'. Under the section headed, 'Interpretation of SHTM 03 [sic] Ventilation for Healthcare Premises', the report states:

> "A single room within Appendix 1 : Table A1 : Recommended air-change rates is given under the ventilation column as supply/extract/natural, with 6 ac/hr and room pressure as zero or negative. The single room WC from the table is 3 ac/hr and room pressure is negative.
>
> Current bedroom ventilation design is supply into the room at 4 ac/hr with opening windows and trickle vents to provide natural ventilation, this gives a balanced room pressure as long as the window is open.
>
> The single bedroom WC extract has been enhanced to 10 ac/hr and the room pressure is negative."

12.35 The Conclusion section states:

> "…When the windows and trickle vents are utilised for natural ventilation the bedroom pressure is balanced and the corridor becomes negative.
>
> If some of the windows and trickle vents are closed, these bedrooms will become positive and the bedrooms with open windows again will be balanced, where the corridor is negative.
>
> Should all the bedroom windows and trickle vents be closed, the bedroom pressure is positive and the corridor shall be balanced as the corridor extract rate will match the supply air coming from the bedrooms via their doors.
>
> The window trickle vents should be left open when the rooms are

occupied, this will ensure that the bedroom pressure is balanced.

By utilising the proposed mixed mode ventilation proposal for the bedrooms, ie. opening windows and trickle vents with the supply air reduced from 6Ac/Hr to 4Ac/Hr direct into the bedroom, this will provide the most energy efficient solution for the space.

We believe that we have complied with the reference design concept as detailed within the original Environmental Matrix."

12.36 On 13 January 2015, an 'MEP' (mechanical, electrical and plumbing) workshop meeting was held at which the issue of pressure regimes was discussed. This was originally planned as a HAI-Scribe Stage 3 review which was cancelled due to lack of attendance of key people. However, ventilation was discussed by those who attended.

12.37 According to an 'RFI Summary' issued on behalf of NHSL, a query was raised on 13 January 2015 regarding HAI Scribe stage 3 Construction:

We had scheduled a meeting today to complete HAI Scribe Stage 3 but unfortunately we could not proceed with the meeting as key individuals were not present. We did however manage to discuss the ventilation query and we will now review the information we were given at the meeting, which Ken is going to send electronically. As you will be aware this stage of HAI Scribe has to be completed prior to any construction starting on site. HFS have recently reviewed and changed HAI Scribe documentation and it is the new documentation that we are using.

When we completed Stage 2 at the workshop on 19th November we agreed that NHSL and their TAs would review the Stage 3 template and complete it in draft format which we would then review with IHSL at today's workshop. In order to progress this those of us who were at today's workshop agreed that in the first instance we would send you

the completed draft and request that you review this and amend the document as appropriate. It is important that the [sic] as well as checking the yes/no/n/a responses that additional information is provided in the comments boxes to justify the response.

Given the need to have this completed prior to construction commencing and the need for us to review the completed documentation internally before we can sign off we do need to turn this around quickly. It may also be that we will require to meet to review the documentation but will advice [sic] of this once we have the completed documentation back from you."

12.38 On 13 January 2015, Janette Richards, NHSL's lead HAI-Scribe Infection Prevention and Control Nurse, sent an email to Ian Stewart (Consultant within HFS' Engineering and Environment department). David Stillie was copied into this email. In her email, Ms Richards provides detail on isolation rooms and then addresses the issue around pressure in single bed rooms:

"Single bed room accommodation will have positive pressure ventilation with negative in the en-suite facility but there will be no option to make the room negative pressure if infected patient in the room-however my understanding, from speaking with Mr Stuart Mckecnie who used to work with you I believe, is if the window/window grills are open the room then becomes negative pressure. I am concerned that we will not have a local option to have neg/pos pressure ventilation option. Most of the facility will be single room accommodation and if the rooms all have positive pressure then nothing should go into the rooms via the doors so immunocompromised patients should still be protected if they have to go into isolation other than the isolation rooms.

12.39 Mr Stewart responded on 14 January 2015, stating:

"The situation regarding what SHPN 04 Supplement 1 describes as an enhanced single bed room (ie with gowning lobby) is that

The lobby will have positive mechanical ventilation (over 60 air changes) The en suite will have extract ventilation creating negative pressure The bed room is 'balanced' without any supply or extract directly to/from the room allowing cascading of air from the lobby to the room via a pressure stabiliser and from the room to the en suite via a fixed grille (probably part of the door assembly).

For what it is worth, I wrote this SHPN!

Its philosophy is much simpler than it used to be. The concept of optional positive/negative ventilation, controlled by staff, for the actual bed room is outmoded. Staff were invariably confused as to when they should provide which and this led to human error and unwanted or unintended air-flow patterns.

The logic now adopted is that if a patient is infectious, the positive pressure in the lobby will stop any 'infected' air getting into the corridor affecting other patients who are not isolated. If a patient is susceptible to infection, the reverse will occur and the corridor air will not get into the bedroom.

I don't think I know Mr McKechnie but I am surprised at reference to the use of openable windows. This could lead to ingress of unfiltered air or egress of infectious air that could find its way to a nearby openable window (whether or not in an isolation room) or to a nearby air intake. In short, have sealed windows as this will enable ait [sic] flow patterns to be controlled."

12.40 Ms Richards forwarded Mr Stewart's response to Janice Mackenzie and David Stillie. Mr Stillie forwarded it on to Colin Macrae. Ms Mackenzie forwarded it to Maureen Brown on 16 January 2015.

12.41 On 14 January 2015, Ms Mackenzie, Clinical Director, NHSL, emailed Fiona Halcrow, attaching the Report by TUV SUD/Wallace Whittle entitled "RHSC –

DCN Edinburgh Air Movement Report For Single Bedrooms (Draft)" as well as drawings headed G1547(57) showing air flows and resultant pressure using an extract taken from level 2 bedroom ventilation. ~~According to this report, bedrooms could achieve 6ach/hr and balanced pressure through opening windows~~. Ms Mackenzie stated:

> "FYI, we discussed this yesterday and what was meant to have been the HAI Scribe Stage 3 workshop but other than the M&E people who were there to talk about the ventilation query the correct people weren't there!!
>
> Anyway David is going to discuss with Colin and Janette with HFS. IHSL do appear to have followed the relevant SHTM, so we await outcome of these discussions."

12.42 On 19 January 2015, Multiplex issued the following Request for Information to MML:

> "As per meeting of Tuesday 13.01.15 and our request for clarity on negative/positive pressure regime within the bedrooms, we attach the sketches distributed at the meeting and seek confirmation/acceptance from the NHS review with infection control."

12.43 Ken Hall (Multiplex) asked again for confirmation in an email to Kamil K Kolodziejczyk on 21 January 2015, copying in Maureen Brown and Colin Macrae. In an email dated 23 January 2015 Mr Macrae stated that:

> "The definitive answer that Ken is looking for from Tuesday's meeting is as follows:
>
> - The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.
>
> - The design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice.

- The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor."

12.44 Graeme Greer responded stating:

"Can we run this past the Board prior to issue to Ken?"

12.45 Maureen Brown sent the comments on to Janice Mackenzie and Janette Richards to review and confirm whether they were happy for it to be released to IHSL. Janice Mackenzie responded on 26 January 2015 stating:

"…based on what Colin is saying are we therefore saying we are happy with their proposal for the isolation rooms?

If this is the case then I think this seems fine, but would want Janette to confirm she is happy."

12.46 Janette Richards responded on 28 January 2015:

"I have forwarded the information re isolation room ventilation from HPS, if the ventilation is now being put in place as per these requirements that were sent to David Stillie then I am happy with that."

12.47 On 29 January 2015 Maureen Brown (MML) responded to Ken Hall (Multiplex) using the Aconex system, stating:

"Following your recent RFI, the Board respond as follows:

- The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.

- The design solution should not rely in any way with the opening

windows as these will be opened or closed by patient choice.

- The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor.

- Isolation room ventilation shall comply with SHPN 04 Supplement 1.

12.48 According to a document entitled 'Design risks to the Board at Financial Close', the risks at 28 January 2015 included an item on ventilation. The issue is not described, but it is given a 'high' risk impact. The current mitigation measures were:

> "The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.
>
> The design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice.
>
> The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor.
>
> Isolation room ventilation shall comply with SHPN 04 Supplement 1."

12.49 The Inquiry Team understands that the issues outlined above were not definitively resolved before NHSL entered into a contract with IHSL in February 2015. It is not clear to the Inquiry Team why NHSL were prepared to enter into the contract when such issues remained unresolved. This issue will require to be explored with witnesses at the hearing in April 2023.

12.50 In the review process described above, no one commented on the air change rates, or pressure regimes, specified for High Dependency Units/ Critical Care within the EM.

At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode", 4 Mechanical AC, for Bedrooms

12.51 ~~At Financial Close, the EM was included in the Project Agreement as one of 'Project Co's Proposals'~~. The Environmental Matrix was incorporated into the Project Agreement as part of the Room Data Sheets. It was stated to be in the Agreed Form and was defined in the Board's Construction Requirements as setting out the environmental condition requirements of the Board required within each department / unit / space / area.

This iteration again contained two room function reference sheets. Extracts from the second, which contained the most changes, are shown below. Where the stated figures differ from those set out in SHTM 03-01, the Inquiry Team have added the figure from SHTM 03-01 in bold for ease of reference.

Room Function	**ADB Code**	**Ventilation**					**Notes**
		Type	Supply Ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
Bedroom		Natural and Central Supply Air **(Central supply air)**	4 **(6)**	Via en-suite **(Not specified)**	Balanced (previously 'positive to en-suite')	G4	See Guidance Notes
Multi-bed Wards		Natural and Central Supply Air **(Central supply air)**	4 **(6)**	Via en-suite	Positive to en-suite **(Balanced or negative)**	G4	See Guidance Notes

Room Function	ADB Code	Ventilation					Notes
		Type	Supply Ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
Recovery Bay/Recovery Room		Central Supply and extract	15	15	Balanced	G4 **(F7)**	See Guidance Notes

12.52 As before, there is no ‘room function’ for HDU or neutropenic patient ward.

12.53 The pressure regime for single bedrooms had been changed from ‘positive to en-suite ’ to ‘balanced’, in line with comments received in relation to the ventilation solution for single bedrooms. However, the pressure regime for multi-bed wards remained the same as previous versions.

12.54 The pressure regime for recovery bay/recovery room had been changed to ‘balanced’.

12.55 The table below shows remaining potential inconsistencies between the EM and SHTM 03-01. It also marks up the potentially erroneous inclusion of ‘en-suite’ to rooms in Critical Care, which, the Inquiry Team understands, were not required in this department.

Dept Name	Room Name	Room Function	ADB Code	Ventilation					Notes
				Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	
B1 PICU and HDUs	Open Plan Bay (4 beds)	Multi-bed Wards **SHTM 03-01: Critical Care Areas. No corresponding room function on RFRS**	B1609-01 (also B1609-02)	Natural and Central Supply Air **Supply Air**	4 **10**	Via en-suite **no en-suite**	Positive to en-suite **no en-suite**	G4 **F7**	See Guidance Notes
	Single Bed Cubicle	Bedroom **SHTM 03-01: Critical Care Areas. No corresponding room function on RFRS**	B1401	Natural and Central Supply Air **Supply Air**	4 **10**	Via en-suite **no en-suite**	Balanced **positive**	G4 **F7**	See Guidance Notes
	Single cot cubicle	Bedroom **SHTM 03-01: Critical Care Areas. No corresponding room function on RFRS**	B1421	Natural and Central Supply Air **Supply Air**	4 **10**	Via en-suite **no en-suite**	Balanced **positive**	G4 **F7**	See Guidance Notes
	Open Plan Bay (3 Cots)	Multi-bed Wards **SHTM 03-01: Critical Care Areas. No**	B1407-01	Natural and Central Supply Air	4 **10**	Via en-suite **no en-suite**	Positive to en-suite **no en-suite**	G4 **F7**	See Guidance Notes

Dept Name	Room Name	Room Function	ADB Code	Ventilation					Notes
				Type	**Supply ac/hr**	**Extract ac/hr**	**Relative Pressure**	**Min Filtration**	
		corresponding room function on RFRS		**Supply Air**					
C1.1 Medical Inpatients	Single Bedroom	Bedroom	B0305-01	Natural and Central Supply Air	4 **6**	Via en-suite	Balanced	G4	See Guidance Notes
	4 Bed Room	Multi-bed Wards[16]	B0405	Natural and Central Supply Air	4 **6**	Via en-suite	Positive to en-suite **balanced or negative**	G4	See Guidance Notes
C1.4 Haematology/Oncology Inpatients and Daycases	Single Bedroom	Bedroom **SHTM 03-01: Neutropenic Patient ward. No corresponding room function on RFRS**	B0305-01	Natural and Central Supply Air **Supply Air**	4 **10**	0	Balanced **Positive**	G4 **H12**	See Guidance Notes

[16] SHTM 03-01 does not specify requirements for 4 bed rooms, however ADB room data sheets c.2011 show same requirements as Single room

Dept Name	Room Name	Room Function	ADB Code	Ventilation					Notes
				Type	**Supply ac/hr**	**Extract ac/hr**	**Relative Pressure**	**Min Filtra-tion**	
	Multi Bed Room: day care, 4 beds & 2 chairs	Multi-bed Wards **SHTM 03-01: Neutropenic Patient ward. No corresponding room function on RFRS**	B0405-01	Natural and Central Supply Air **Supply Air**	4 **10**	0	Positive to en-suite ***balanced***	G4 **H12**	See Guidance Notes
P1 Combined theatres	Post Anaesthetic Recovery	Recovery Bay/Recovery Room		Central Supply and Extract	15	15	Balanced	G4 **F7**	See Guidance Notes

12.56 The Department sheets included changes to the pressure regime in single bedrooms, but not in multi-bed wards.

12.57 For Critical Care/HDU areas, the ventilation type, air changes and minimum filtration figures are all potentially inconsistent with SHTM 03-01. En-suites are mentioned but Critical Care/HDU areas do not require en-suites. The pressure regime for single bed cubicles, while corrected for single bedrooms, was now inconsistent with that recommended for Critical Care areas.

12.58 The ventilation for post-anaesthetic recovery was consistent with SHTM 03-01 with the exception of minimum filtration.

12.59 The Inquiry Team understands that the draft room data sheets dated 18 September 2014 were included in the Project Agreement as Schedule Part 6 (Construction Matters) section 6 (Room Data Sheets) and that these had been reviewed and agreed but had not yet been formally approved by the Board of NHSL as they were included in Part 3 of the RDD Schedule which included Reviewable Design Data ~~'not provided to the Board nor approved by the Board at Financial Close'~~. The draft RDS appears to replicate the environmental data contained in the EM, which contains potential discrepancies when compared to SHTM 03-01.

12.60 It is not clear to the Inquiry Team how these discrepancies could have arisen if room data sheets, showing room environmental data, were produced using ADB. The procedure for the creation of IHSL's room data sheets will require to be explored with witnesses at the hearing diet in April 2023, In particular, whether room data sheets were produced to comply with the values set out in the EM rather than published guidance and, if so, why this procedure was adopted and why it was deemed acceptable by NHSL.

12.61 The Inquiry Team has seen no information or documentation that suggests the potential divergence from published guidance (namely SHTM 03-01) in the room data sheets for critical care was spotted by NHSL or its advisers

when tenders were assessed or in the period to Financial Close.

12.62 The Project Agreement provided a mechanism, known as a derogation register, by which IHSL could highlight to NHSL any proposed derogations from the Board's Construction Requirements (BCRs) so that they could be agreed by NHSL.

12.63 On 5 September 2014, a derogation was requested from BCR Clause 8 Mechanical and Electrical Engineering Requirements which states "Project Co shall provide the Works to comply with the Environmental Matrix". The reason for this derogation was that 'anomalies' had been found within the environmental matrix. No further detail was provided with respect to these anomalies in the initial derogation request. Following further dialogue regarding the environmental matrix, IHSL submitted a reworded derogation request on 13 November 2014 which NHSL approved on 14 November 2014. Project Co's proposal stated:

> "Anomalies within the environmental matrix have been reviewed and proposals incorporated within the room data sheets (refer to schedule for proposed variations).This shall be further developed in conjunction with the board on the basis of the schedule of comments contained in Section 5 (RDD) Part IV."

12.64 As at Financial Close, the derogation register did not identify any proposed derogation by IHSL from SHTM 03-01 in relation to air change rates, pressure regimes and filtration within Critical Care.

12.65 ~~IHSL's EM was not approved by the Board of NHSL at financial close. Neither were IHSL's room data sheets, which were associated with the EM as per paragraph 2.5.2 of the ITPD, which referred to the EM as one of a suite of documents providing room information that could be used in the production of room data sheets~~.

12.66 The EM, along with other design data, was included in the schedule of Reviewable Design Data, contained within Schedule Part 6 to the Project

Agreement, section 5.

12.67 Schedule Part 6 (Construction Matters) Section 3 (Board's Construction Requirements) of the Project Agreement provided that Project Co shall submit Reviewable Design Data for review by the Board of NHSL in accordance with Schedule Part 8 (Review Procedure) and Clause 12.6 (Board Design Approval) of the Project Agreement.

12.68 These clauses provided that Project Co was not to commence or permit the commencement of construction of the part of the facilities to which the Reviewable Design Data related until that Reviewable Design Data had been submitted to the Board of NHSL and either:

- It had been approved; or
- Project Co disputed that the comments/objections made by the Board in relation to that Reviewable Design Data were on grounds permitted by the Project Agreement, in which case Project Co could proceed with further design or construction at its own risk pending the outcome of any reference to the Dispute Resolution procedure.

12.69 Schedule Part 8 Paragraph 4 outlines the meaning of the different "levels" allocated to Reviewable Design Data reviewed by the Board. These are set out in the table below:

Level	Meaning
A	No comment. The submitted item of Reviewable Design Data shall be complied with or implemented by Project Co.
B	Proceed subject to amendment as noted. Project Co shall proceed to construct (or proceed to the next level of design) of the submitted item of Reviewable Design Data but take into account any amendments required by the Board in their comments.

Level	Meaning
C	Subject to amendment as noted. Project Co shall not act upon the submitted item of Reviewable Design Data, but amend the submitted item in accordance with the Board's comments and re-submit the same for review.
D	Rejected. Project Co shall not act upon the submitted item of Reviewable Design Data, but amend the submitted item and re-submit the same for review.

12.70 By Financial Close IHSL's EM had received only a Level C or D status from the Board of NHSL, and was included in Part 4 of the schedule of Reviewable Design Data. Part 4 was titled 'Non-Approved Project Co's Proposals Design Data comments' and it outlined the amendments that Project Co needed to make before resubmitting the item to the Board for review.

12.71 Part 4 of the schedule of Reviewable Design Data: 'Non-Approved Project Co's Proposals Design Data comments' contained the following in respect of the EM:

"Project Co shall update the Environmental Matrix to reflect the following Board comments

- The Environmental Matrix shall by [sic] updated by Project Co to reflect all the rooms and room types in the proposed Facility, this should be based on an updated Schedule of Accommodation that has been commented on separately by the Board. This also needs to reflect the names and room numbers in the GSU table.
- Include the requirements contained in the Clinical Output Specification including but not limited to the requirement that theatre temperatures are to be able to be raised to 31°C for certain operations
- Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of the following room types to reduce the temperature control from 28°C to 25°C;
    - Treatment Rooms;
    - Consulting Rooms;
    - Laboratory;

- Physiotherapy Studio;
- Recovery.

- These room shall not exceed the maximum acceptable level of 25°C for more than 50 hours per annum
- Detailed proposal awaited on bedroom ventilation to achieve balanced/negative pressure relative to corridor.
- Colour rendering all stated as 80 where certain areas should be 90.

12.72 Room Data Sheets were mentioned in Part 3 of the schedule: 'Reviewable Design Data' - Reviewable Design Data not provided to the Board at Financial Close.

12.73 By Financial Close, the EM was not obsolete. It was included as part of the contract between NHSL and IHSL. The EM had undergone various stages of development and review. Further development of the EM and room data sheets was still required, and would take place through the Reviewable Design Data process.

At Financial Close, paragraph 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, required:

2.1.4: "All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets"

2.1.32: "Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix"

12.74 Concerns had been raised about the pressure regime for single bedrooms, and mention made of the fact that SHTM 03-01 recommended 6 ac/hr and not 4 ac/hr as contained in the EM. However, there were still a number of other

potential inconsistencies between the EM and SHTM 03-01 that had not been raised as an issue.

12.75 Single bed cubicles and open plan bays in Critical Care/HDU potentially did not meet the specifications for Critical Care Areas as outlined in SHTM 03-01. Specifically, the ventilation type, air change rates and minimum filtration were potentially inconsistent with SHTM 03-01, and the pressure regime for single bed cubicles in Critical care was potentially inconsistent with SHTM 03-01.

12.76 Single and multi-bed rooms in haematology/oncology department did not meet the specifications for neutropenic patient ward as outlined in SHTM 03-01. Specifically, the ventilation type, air change rates, pressure regime and minimum filtration were all inconsistent with SHTM 03-01.

13. Provisional Conclusions

13.1 As outlined at the start, this paper seeks to set out the Inquiry Team's current understanding of the EM adopted for the Project. It is provisional in nature. There are issues highlighted in the Paper where the Inquiry Team's knowledge is incomplete. Such issues will need to be covered with witnesses at an oral hearing. The paper does not constitute any findings of the Chair of the Inquiry. It is open to any CP to seek to correct and/or contradict the contents of the paper. However, unless that is done, in addition to such other findings in fact that Counsel considers appropriate, the Chair is likely to be invited by Counsel to the Inquiry to make the following findings in fact at the conclusion of the hearing diet scheduled for April 2023:

13.1.1 CEL 19 provides guidance on the approach NHS Scotland bodies should adopt for the briefing and design stages of any new hospital.

13.1.2 CEL 19 mandates that all NHS Scotland Bodies use the English Department of Health's Activity Database (ADB) as a tool for briefing, design and commissioning. Where ADB is deemed inappropriate for a particular project, and an alternative tool is used, the NHS Scotland Body is required to demonstrate that the alternative is of equal quality and value to ADB in its application.

13.1.3 Room data sheets produced using ADB automatically comply with guidance and legislation applicable in England.

13.1.4 An NHS Scotland body utilising ADB would need to ensure compliance with Scottish guidance, including SHTMs.

13.1.5 NHSL did not use ADB as a tool for the briefing stage of the RHCYP/DCN project.

13.1.6 An 'environmental matrix' was utilised as part of the procedure for NHSL to brief prospective tenderers on its technical requirements for the ventilation system.

13.1.7 The ‘environmental matrix’ was a spreadsheet that set out environmental information, including air changes per hour and pressure regimes for various rooms in the proposed new hospital, in one spreadsheet.

13.1.8 The Inquiry has seen no documentation demonstrating: (i) why NHSL determined to deviate from using ADB as a briefing tool; and (ii) why it considered that the alternative approach that it adopted was of equal quality and value to ADB.

13.1.9 The ITPD informed prospective tenderers that the preferred bidder required to prepare room data sheets for every room in the hospital by financial close. Therefore, the environmental matrix should have been obsolete by Financial Close as a briefing and design tool.

13.1.10 H&K produced the original environmental matrix for the project on 9 September 2010.

13.1.11 H&K developed the environmental matrix in the period to 19 September 2012. This version of the environmental matrix was issued to prospective tenderers with the ITPD.

13.1.12 The environmental matrix stated that the document was an easier reference tool to replace ‘ADB RDS M&E’ Sheets.

13.1.13 The environmental matrix was not produced using ADB.

13.1.14 The environmental matrix was created by figures being manually input into a spreadsheet.

13.1.15 H&K stated to MML on 16 March 2012 that the Reference Design –which included the environmental matrix– complied with published guidance (including SHTM 03-01).

13.1.16 This assurance was obtained approximately six months before the environmental matrix was finalised by H&K.

13.1.17 The 16 March 2012 confirmation was the only occasion, prior to the conclusion of the contract with the preferred bidder, where 'environmental information' set out in the Reference Design concerning the proposed ventilation system for the hospital – including air changes per hour and pressure regimes - was formally reviewed and signed-off for compliance with published healthcare guidance (including SHTM 03-01).

13.1.18 The environmental matrix provided with the ITPD contained environmental information that was inconsistent with the guidance set out in SHTM 03-01. In particular, values inserted in the environmental matrix for certain critical care areas did not comply with the guidance in SHTM 03-01.

13.1.19 The environmental matrix contained a 'notes' section. The notes contained information that contradicted certain values in the environmental matrix itself in relation to critical care areas.

13.1.20 The environmental matrix had a 'Room Function Reference Sheet'.

13.1.21 The version of the environmental matrix issued with the ITPD had a 'room function' of 'HDU' (High Dependency Unit).

13.1.22 No room in the environmental matrix was designated as having the 'Room Function' of 'HDU'. This included rooms in critical care areas.

13.1.23 Multi-bed rooms in critical care areas of the hospital were assigned the 'room function' of 'multi-bed ward'. The values inserted in the environmental matrix for these rooms, including air changes per hour, were inconsistent with those set out in SHTM 03-01 for critical care areas of a hospital.

13.1.24 ITPD Volume 1, Section 2.5.3 stated that tenderers were required to use the environmental matrix, and other 'Room Information' documents, to form the basis of Room Data Sheet production.

13.1.25 ~~There was a lack of clarity in the procurement documents in relation to: (i) the purpose of the environmental matrix; and (ii) whether compliance with the environmental matrix was mandatory~~. In ITPD Volume 3 Part 6, the terms of the Environmental Matrix are framed as the Board's Construction Requirements. It was defined as being*: "the room environmental condition requirements of the Board within each department/unit/space/area….*"

13.1.26 IHSL did not seek to change any of the values set out in the environmental matrix either at the competitive dialogue stage or when it submitted its final tender.

13.1.27 One tenderer, Bidder C, did change values in the environmental matrix.

13.1.28 Both IHSL and Bidder C were assessed by NHSL as having submitted compliant tenders. This assessment was made notwithstanding the fact that IHSL and Bidder C were offering to provide different technical requirements in terms of the environmental matrices submitted.

13.1.29 IHSL stated in its tender that its proposal for the ventilation system would comply with SHTM03-01.

13.1.30 Given the disconnect between the values in the environmental matrix (issued with the ITPD) and SHTM03-01, it is not clear why IHSL's tender was deemed by NHSL to comply with the published requirements.

During the preferred bidder period IHSL co-located with NHSL in order to develop the design, at NHSL's request.

13.1.31 IHSL developed the environmental matrix in the period to financial close, in conjunction with NHSL and their technical advisors.

The Environmental Matrix was reviewed and commented on by NHSL and their technical advisors prior to Financial Close.

13.1.32 ~~IHSL removed~~ The room function 'HDU' was removed from the 'Room Function Reference Sheet'.

13.1.33 IHSL produced certain room data sheets in advance of the contract being concluded.

The Room Data Sheets produced were reviewed by the Board and their advisors prior to Financial Close

13.1.34 IHSL's room data sheets for certain critical care areas set out environmental information, including air changes per hour, that complied with the information in the environmental matrix. This was inconsistent with the guidance set out in SHTM 03-01.

13.1.35 No issue was raised by NHSL in relation to the environmental information in IHSL's room data sheets for critical care areas in the period prior to conclusion of the contract.

13.1.36 In October 2014, environmental information for single bedrooms within IHSL's environmental matrix was identified by the Board of NHSL as potentially non-compliant with SHTM03-01.

13.1.37 ~~This was disputed by IHSL. IHSL~~ Wallace Whittle maintained that it was proposing a mixed mode ventilation system – comprising of natural ventilation and mechanical ventilation - which complied with ~~SHTM03-01~~the Board's Construction Requirements.

13.1.38 NHS NSS corresponded with NHSL in relation to this dispute

and expressed surprise that NHSL was considering having opening windows as part of the ventilation system.

13.1.39 ~~In January 2015, the Board of NHSL determined that the ventilation design for single bedrooms should not rely on openable windows~~.

13.1.40 ~~This was not reflected in IHSL's environmental matrix submitted as part of its final tender~~.

13.1.41 ~~Notwithstanding this disconnect between what the Board of NHSL wished and the solution being offered by IHSL, NHSL did not insist on any changes being made to IHSL's tender (including the environmental matrix submitted by IHSL) before a contract was signed~~.

At a HAI-Scribe meeting held on 19 November 2014, concerns were raised in relation to the pressure regime in single bedrooms.

On 13 January 2015 a meeting was between NHSL, Mott MacDonald, Multiplex and Wallace Whittle, at which the ventilation regime for the single bedrooms was discussed.

Following the meeting on 13 January 2015 Multiplex sought confirmation from NHSL in relation to their requirements for the regime within single bedrooms based on NHS's review with infection control

NHS' requirements were confirmed as being for there to be balanced pressure in the single bedrooms, as opposed to the positive pressure shown in the Reference Design Environmental Matrix. The Environmental Matrix was accordingly changed, and the Environmental Matrix incorporated in the Project Agreement at Financial Close required balanced pressure in the Single Bedrooms.

At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode" and 4 Mechanical AC for the Bedrooms

13.1.42 NHSL agreed to waive the requirement for the preferred bidder to produce room data sheets for every space in the hospital by Financial Close.

13.1.43 NHSL entered into a contract with IHSL which stipulated that the environmental matrix would be 'Reviewable Design Data' under the contract .~~ Therefore, the precise parameters for the ventilation system would be worked out after the contract was concluded~~.

NHSL's comments on the Environmental Matrix at Financial Close were recorded in Section 5 of Schedule Part 6 of the Project Agreement. No comments were made in relation to the Air Change Regime in the Bedrooms

The Environmental Matrix was incorporated into the Project Agreement as part of the Room Data Sheets. It was stated to be in the Agreed Form and was defined in the Board's Construction Requirements as setting out the environmental condition requirements of the Board required within each department / unit / space / area.

The contract between NHSL and IHSL required IHSL to comply with the Room Data Sheets and Environmental Matrix as part of the Completion Criteria for the Project

SCOTTISH
HOSPITALS
INQUIRY

Scottish Hospitals Inquiry – Provisional Position Paper 3
Multiplex Construction Europe Limited – Response
3 February 2023

1 Introduction

1.1 The following is a response by Multiplex Construction Europe Limited ("**Multiplex**") to the Public Inquiry's Provisional Position Paper 3, title: *"The Procurement Process for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences*" issued by the Inquiry by e-mail dated 14 December 2022 (timed at 12:34) ("**PP3**").

1.2 Multiplex note the terms of the email issuing PP3 and the terms of PP3 itself, where the Inquiry Team invites Core Participants to submit corrections and/or look to contradict to the content of the paper. Multiplex is grateful for this opportunity and at this stage, to assist the Inquiry, Multiplex would make the following submissions.

1.3 For the benefit of the Inquiry, Multiplex has included as Schedule 1 to this submission a track change version of PP3 showing its proposed corrections/additions.

1.4 As a preliminary point, Multiplex note that both volumes of PP3 state that:

> *"An earlier draft of this paper was circulated to Core Participants (CP) for consideration and comment. Those comments have been considered by the Inquiry Team and taken into account in finalising this paper."*

1.5 Multiplex was not provided with an earlier draft of either volume of PP3 and would be grateful if the Inquiry could confirm if it was circulated to other Core Participants.

2 Reference Design

2.1 Multiplex note that at present PP3 does not consider Volume 4 of the ITPD in detail and the documents provided to bidders as part of the Reference Design.

2.2 Multiplex would suggest that paragraph 9.3.4 PP3 be supplemented to state:

> *"Volume 4: This sets out the Data Room available to bidders, which was used for sharing information. Included in Volume 4 was the Reference Design, the M&E Reference Design Approach produced by Hulley and Kirkwood, the Thermal Comfort Analysis produced by Hulley and Kirkwood; and the Section 6 SBEM Compliance Report produced by Hulley and Kirkwood".*

2.3 Thereafter Multiplex would suggest that following supplemental text be added after paragraph 9.8.24 PP3:

> "***Volume 4***
>
> *Volume 4 of the ITPD included the Reference Design and design documents produced by Hulley and Kirkwood. This included:*
>
> *M&E Reference Design Approach Document. Paragraph 1.1.2 is titled "Energy Considerations" and states: "the design solution shall comply with the 2010 version of Section 6 of the Building Regulations*

Scotland". Paragraph 1.1.3 is titled "Environment" and states: " The Building Services shall be integrated with the building design to provide a design solution which will provide an environment to support the well being of staff, visitors and patients. Key components of the design solution:… Openable windows (even where mechanical ventilation is provided) but only where function permits."

Thermal Comfort Analysis Document. Paragraph 1.0 states: "The profiles in Simulations 1 & 2 show that the internal temperatures in ward rooms can be maintained at comfortable levels with 4 ACH (air changes per hour) of cooled fresh air supply mechanical ventilation and could be controlled in summertime between 22C and 25C maximum."

Section 6 SBEM Compliance Report, paragraph 4.0 states: "A Simplified Building Energy Model (SBEM) calculation has been carried out for the Reference Design Stage Royal Hospital for Sick Children / Department for Clinical Neuroscience building using the envisaged approach… by incorporating the following passive and active LZCGT measures the RHSC/DCN building can meet the CO2 emission reduction requirements set out in Section 6 Energy of the 2010 Scottish Building Regulations…. Ventilation solutions as aligned to the RHSC-DCN Environmental Matrix"

2.4 Multiplex would request that, based on the above, the following provisional conclusions be added after paragraph 23.1.29 PP3:

"ITPD Volume 4 included the Reference Design and design documents produced by Hulley and Kirkwood. These documents required tenderers to comply with the 2010 version of Section 6 of the Building Regulations and advised the RHSC/DCN building could meet the CO2 emission reduction requirements set out in Section 6 Energy of the 2010 Scottish Building Regulations by adopting the ventilation solutions as aligned to the RHSC-DCN Environmental Matrix. A thermal comfort analysis produced by Hulley and Kirkwood was also provided to tenderers as part of Volume 4 which indicated that the internal temperatures could be achieved with 4ACH.

2.5 Multiplex would also be grateful if the Inquiry could advise whether or not it is their intention to further investigate the preparation and development of the original Environmental Matrix and ventilation Reference Design produced as part of the ITPD. This is not a matter Multiplex can assist the Inquiry with, given it is prior to their involvement, but is a matter they consider relevant to the Terms of Reference because it was the Environmental Matrix prepared by Hulley and Kirkwood which first stated NHSL's requirements as being for 4AC in the bedrooms. Multiplex would note the Environmental Matrix is identified as being the Third Issue, with the comments next to the Second Issue stating: *"Revised to suit NHSL Comment"* (extract below for ease). NHSL has accordingly already reviewed and commented upon the environment requirements issued to bidders:

Rev	By	Description	Date
First Issue	JMcM	First Issue Based on Schedule of Area V8	03.02.12
Second Issue	JMcM	Second Issue Based on Schedule of Area V10 Ward Room T Max Reduced from 28 to 25 Degrees Celsius Revised to suit NHSL Comments	13.03.12
Third Issue	JMcM	Third Issue Based on Schedule of Area V13	19.09.12

3 Environmental Matrix

3.1 For the reasons explained Section 2 of Multiplex's Response to the Public Inquiry's Provisional Position Paper 1, title: *"The Reference Design utilised for the Royal Hospital for Children and Young People and Department for Clinical Neurosciences"* ("**PP1**"), Multiplex do not consider the provisional conclusion at 23.1.30 of PP3 is factually accurate, namely that:

> *"There was a lack of clarity in the procurement documents in relation to: (i) the purpose of the Environmental Matrix; and (ii) whether compliance with the Environmental Matrix was mandatory"*

3.2 As set out in Section 2 of its Response to PP1, Multiplex considers that the procurement documentation made clear that the Environmental Matrix set out the environmental conditions the Board required in each space and the Board's requirement that bidders did not depart from these. Accordingly, Multiplex would respectfully invite the Inquiry to delete paragraph 23.1.30 of PP3.

3.3 Multiplex would also, for clarity and completeness, seek to supplement the text of paragraph 9.6.7 of PP3 to add the following after the current final sentence:

> *"Section 8 of the Board's Construction Requirements stated: "Project Co shall provide the Works to comply with the Environmental Matrix"*

3.4 Finally, Multiplex note that at paragraph 9.3.3 (iii) PP3, the Environmental Matrix provided with the ITPD is referred to as the "draft Environmental Matrix". The Environmental Matrix included in Appendix C ITPD is titled, *"Reference Design Envisaged Solution – RHSC/DCN RDS Environmental Matrix"* and as outlined in the provisional conclusion 13.1.12 of PP1 stated that it was an " *easier reference tool to replace 'ADB RDS M&E' Sheets".* Multiplex would accordingly ask that "draft" be deleted from paragraph 9.3.3 (iii) PP3 and be replaced with "*the Reference Design".* If the Inquiry Is not minded to make this deletion, then Multiplex would ask that the following be inserted immediately after "draft Environmental Matrix":

"which bidders were required to confirm acceptance of, highlighting any changes on an exceptional basis."

4 NHS Requirements

4.1 For the reasons explained in Section 3 Multiplex's Response to PP1, Section 3 of Multiplex's Response to the Public Inquiry's Provisional Position Paper 2, title: *"The Environmental Matrix for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences",* ("**PP2**") and Section 2 of its November 2021 Submission, Multiplex do not consider the provisional conclusion at paragraph 23.1.29 PP3 is factually accurate, namely that:

> "*ITPD, Volume 3, Section 2.3 required tenderers to comply with SHTMs."*

4.2 The documentation provided with the ITPD advised that the successful bidder was required to meet the Board's specific express requirements, and the design of the ventilation systems was to comply with SHTM 03-01, except where a differing requirement was expressed by NHSL. The ITPD contained no unqualified requirement that tenderers should comply with SHTMs.

4.3 Section 2.3 Volume of the ITPD states (our emphasis):

"In addition to the standards listed in paragraph 2.4 of this Sub-Section C, ***unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement****, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:*

4.4 Multiplex would accordingly ask that the following sentence be added to the current conclusion at paragraph 23.1.29 PP3:

"ITPD, Volume 3, Section 2.3 required tenderers to comply with SHTMs, *unless the Board had expressed elsewhere in the Board's Construction Requirements, a specific and different requirement*"

4.5 Likewise for the reasons outlined in Section 3 of Multiplex's Response to PP1 and Section 3 of Multiplex's Response to PP2 and Section 2 of its November 2021 Submission, Multiplex would request that the following changes be made to the text of PP3:

- That the following be added after the current paragraph 9.7.4 PP3:

"Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD stated: "Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…except to the extent expressly stated to the contrary in the Board's Construction Requirements or the Service Level Specification, in compliance with all applicable NHS Requirements". NHS Requirements was defined as follows: "means: (a) in relation to the Works, Health Building Notes and Health Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements "

- That the following be added to end of the current paragraph 14.18 PP3:

"Paragraph 2.3 stated: "In addition to the standards listed in paragraph 2.4 of this Sub-Section C, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time: h) HTM and SHTM;"

5 BID and Preferred bidder

5.1 Based on the text in PP3, Multiplex would respectfully seek to supplement the provisional conclusions of PP3 as follows:

- That paragraph 23.1.35 PP3 be supplemented and the following further sentence:

"One tenderer (Bidder C/Mosaic) did propose changes to the Environmental Matrix including to air changes per hour in critical care rooms. *The air change rates for single bed cubicles and open plan bays were changed from 4 to 10 air changes per hour for the Critical Care department.* (This reflecting the text at paragraph 14.34 PP3)

- That the following be added after the current paragraph 23.1.36 PP3:

"During Dialogue meetings with Bidder C NHSL agreed 4 AC/hr in bedrooms despite this being lower than that indicated in SHTM 03" (This reflecting the text at paragraph 14.30 PP3)

- That the following be added after the provisional conclusion at paragraph 23.1.39 PP3:

  "Bid Submission requirement C8.3 stated that "Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an acceptance basis." IHSL did not provide an a marked up environmental matrix, but in their submission had noted that "no changes proposed at this time nor envisaged in the future." The Reviewers concluded that the brief had been achieved. The assessment panel commented: "Good response." (This reflecting the text at paragraph 15.9 PP3)

  "MM commented on IHSL's bid submission noting that IHSL had adopted the Reference Design and accepted compliance with the Board's requirements. MM noted that as IHS Proposals are compliant with a [sic] mandatory reference design requirements, they assumed all derogations which would have been required in construction of the reference design would be acceptable to NHSL" (This reflecting the text at paragraph 15.15 PP3)

5.2 Multiplex would also like to address any suggestion that from a technical design and build perspective the bid produced by IHSL "*lacked detail*" (paragraph 15.9 PP3) and/or that there were "*significant concerns*" during the Preferred Bidder period in the lead up to Financial Close (paragraph 19.8 PP3) in regard to the design and construction of the hospital. Multiplex do not comment on financing or operational aspects of the bid.

5.3 Firstly, in relation to the IHSL tender, Multiplex would note that the PP3 proceeds on the basis of evidence consisting of internal correspondence and internal reviews, rather than direct correspondence between NHSL and IHSL or NHSL and Multiplex advising of specific concerns with the ventilation strategy being proposed.

5.4 Instead, IHSL were awarded preferred bidder status on the basis of their bid and IHSL were entitled to proceed on the basis that this was because they had met NHSL's requirements. The Preferred Bidder letter did not suggest any material change from IHSL's tender was required; indeed, as the Inquiry has identified this would not have been possible in any event as (para 14.4 PP3):

> *"No material changes can be made to bids following submission of final tenders, unlike the previous negotiated procedures approach adopted in many PPP projects."*

5.5 Multiplex note the Inquiry's current text at paragraph 15.12 and 15.14 PP3, where it is narrated that: *IHSL received the highest score out of the three bidders for C1, "meeting the stakeholders requirements"*. More specifically, as noted above, IHSL's response that they had adopted the Reference Design and proposed no changes to the Environmental Matrix was commented on as being a "*good response*". This accords with IHSL providing what NHSL wanted in relation to the design and construction of the hospital. Indeed, as the Inquiry has identified, a bidder sought to depart from what NHSL had specified in their Environmental Matrix and their bid was unsuccessful.

5.6 Multiplex would also refer to the current text at paragraph 15.18 PP3, where the Inquiry narrates that when the final tenders were being discussed Brian Currie and Iain Graham confirmed that *"all three bids met NHSL's requirements"*, this being further confirmed by Mr Cantlay of MM on 04 March 2014 (see paragraph 17.2 PP3) stating "*that from a technical perspective, it was appropriate for NHSL to conclude the evaluation process and appoint the preferred bidder*" and (paragraph 17.3 PP3 that: "*…the scores were all appropriate and he was happy with the evaluation and satisfied that the preferred bidder was in full accordance with the requirements*"".

5.7 From a technical perspective, the IHSL bid was clear that the ventilation strategy, and energy model, was based on 4AC for the bedrooms on the basis of NHSL's Environmental Matrix. If IHSL's proposal had been lacking, or contrary to what NHSL wanted, then this would have been identified during the bid evaluation process and IHSL would not have been awarded preferred bidder by NHSL.

5.8 Likewise, in relation to the suggestion that there were "*significant concerns*" about the project programme raised during the Preferred Bidder period, if these concerns had been material and had related to the technical solution being developed, Financial Close would not have been awarded. Instead, NHSL submitted the Full Business Case, confirming they were satisfied the "*preferred bidder's solution*" met their *"operational and functional requirements and delivers the project objectives"* (see paragraph 20.3 PP3).

5.9 Any concern over programming to achieve Financial Close was related to the level of scrutiny and review being undertaken by NHSL of the design solution. This is reflected in the comments from Mr Ballingall of Multiplex at the meeting of 22 August 2014 where the concern was raised (see paragraph 18.9.5 PP3). Multiplex would also refer the Inquiry Team to Section 6 of Multiplex's Response to PP2 which sets out the collaborative design process between NHSL and IHSL to achieve the design solution which meets NHSL's requirements and was confirmed at Financial Close.

5.10 After Financial Close the design was again reviewed and scrutinised by the Board including (1) during the RDD process, where again NHSL's requirement for 4AC was confirmed; (2) during the discussions in relation to the pressure regime for the multi bed wards, where in an email of 18 April 2018, the Board stated they were *"seeking a design for 4AC* for all 14 rooms"– which included the Multi-Bed wards in critical care (Appendix 1) and (3) in the Settlement Agreement, see for example Item 13 in the Technical Schedule.

5.11 Indeed, when the question of 4AC in critical care was raised by IOM in their first issue log (Appendix 2), IOM's comment in relation to HDUs was "*Only achieving 3-4 ach/hr vs required 10" " NHS have apparently agreed this??"*

HDU's	Only achieving 3-4 ach/hr vs required 10	NHS have apparently agreed this??

5.12 NHSL then approached IHSL to undertake additional work to achieve 10 AC in Critical Care on the basis it was a Change to what IHSL had been contracted to provide: (Appendix 3):

1 – Issue of Change Notice to Project Co			
Title:	Paediatric Critical Care Ventilation		
Reference No:		Date:	
Target Cost Capital:	£1.9m	Target Cost Revenue:	TBA
High Value Change Requirements (Schedule Part 16, Section 4, Clause 2.1.3)			

In accordance with Schedule Part 16 (Change Protocol), the Board requires Project Co to Design, Supply and Install a ventilation system or systems capable of delivering 10 air changes/hour at +10kpa as per SHTM 03-01, Appendix 1, Table A1 to the following rooms:

1-B1-065 including 1-B1-022, 1-B1-069, 1-B1- 076 and 1- B1-071 which are all open to 1-B1-065
1-B1-075
1-B1-063
1-B1-037
1-B1-031
1-B1-021
1-B1-020
1-B1-019
1-B1-009

All environmental requirements for all spaces served by these systems shall be met.

All works to be carried out and monitored after and with reference to a collaborative full Stage 3 HAI SCRIBE assessment being approved by NHS Lothian.

Design development to include input from the board and all appropriate stakeholders.

DRAFT

5.13 IHSL provided a ventilation solution that met NHSL's requirements. Any questions raised in relation to the adequacy of these requirements is a matter for NHSL

6 Position at Financial Close

6.1 For the reasons explained in Section 5 of Multiplex's Response to PP1, and Section 5 of Multiplex's Response to PP2, and the immediately preceding paragraphs above, Multiplex do not consider the provisional conclusion at paragraph 23.1.51 PP3 is factually accurate, namely that:

> "*Prior to a contract being signed between NHSL and IHSL, a dispute arose in relation to air change rates, and pressure regimes, in certain bedrooms"*

6.2 Multiplex do not consider that there was any "dispute" between the parties on these issues prior to Financial Close. The parties discussed NHSL's ventilation requirements prior to Financial Close. NHSL's requirement for the pressure regime in the single bedrooms was confirmed and the mandated positive pressure requirement which had been defined within the Reference Design Environmental Matrix was changed to a balanced pressure regime for the single bedrooms. During these discussions IHSL's design of 4AC for the bedrooms was confirmed and no further changes were requested by the Board in relation to the air change regime.

6.3 Multiplex would accordingly ask that the following changes be made to the provisional conclusion at paragraph 23.1.51 PP3:

> "Prior to a contract being signed between NHSL and IHSL, *the parties discussed and agreed NHSL's requirements in relation to* ~~a dispute arose in relation to~~ air change rates, and pressure regimes, in ~~certain~~ bedrooms"

6.4 Multiplex would also request that paragraph 23.1.52 PP3 be amended to read:

"Discussions took place between NHSL, MM and IHSL in relation to the issues concerning environmental parameters in certain bedrooms. IHSL made it clear to NHSL that its proposal for ventilation was "mixed mode*", and that supply to bedrooms was 4AC/hr* ~~and relied on natural ventilation for certain spaces in the hospital."~~

6.5 Reference in this regard is made to paragraphs 14.24, 14.36 and 14.38 PP3 which confirm IHSL made clear their proposal was for 4AC, as per NHSL's Reference Design Environmental Matrix.

6.6 Likewise for the reasons outlined in Section 5 of Multiplex's Response to PP1 and Section 5 of Multiplex's Response to PP2, Multiplex would ask that the following further changes be made

- The following be added after the current paragraph 23.1.50 PP3:

  "At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode", 4 Mechanical AC, for Bedrooms" (This reflecting the text at paragraph 14.36, 14.38, and 14.39 PP3)

- That paragraph 18.33 PP3 be amended as follows:

  ~~"By financial close the issues that had been identified with the Environmental Matrix and TUV SUD/Wallace Whittle's design for single bedroom ventilation were not resolved~~. room data sheets were incomplete, although draft room data sheets for generic and key rooms had been prepared. The ventilation specifications outlined in the Environmental Matrix as well as the Room Data sheets for Department B1 (Critical Care, HDU, Neonatal Surgery) were potentially inconsistent with SHTM 03-01, ~~but this had not been identified by MM, NHSL or IHSL~~. This and other potential inconsistencies are described in further detail in the Inquiry's Provisional Position Paper 2 on the Environmental Matrix".

  The first deletion is proposed on the basis, as above, the "issues" raised prior to Financial Close had been discussed and agreed between the parties. This matter being discussed in more detail in PP2. The second deletion reflecting the fact (as per paragraph 14.30 PP3) NHSL were aware 4 AC was contrary to that specified in SHTM03-01.

- That the following further sentence be added before the current paragraph 18.34 PP3:

  "The Room Data Sheets produced were reviewed by the Board and their advisors prior to Financial Close" (Reference is made to Section 4 of Multiplex's Response to PP2)

6.7 For the reasons explained in Section 6 of Multiplex's Response to PP1, and Section 7 of Multiplex's Response to PP2, Multiplex also do not consider the provisional conclusion at paragraph 23.1.61 PP3 is factually accurate, namely that

> *"NHSL entered into a contract with IHSL which stipulated that the environmental matrix would be "Reviewable Design Data" under the contract. Therefore, the precise parameters for the ventilation system would be worked out after the contract was concluded."*

6.8 The RDD review process began during the preferred bidder period and the Environmental Matrix was specifically discussed with and reviewed by NHSL and Mott MacDonald. A specific design meeting was then held on 11 November 2014 to discuss the Board's comments on the Environmental Matrix. These meeting

notes then formed the basis of the comments in Section 5 of Schedule Part 6 of the Project Agreement, recorded by the Inquiry at paragraph 12.71 PP2.

6.9 Multiplex's understanding was that the Environmental Matrix was agreed subject to these comments.

6.10 Multiplex would accordingly request that the second sentence in the current paragraph 23.1.61 PP3 be deleted and replaced with:

> *"NHSL's comments on the Environmental Matrix at Financial Close were recorded in Section 5 of Schedule Part 6 of the Project Agreement. No comments were made in relation to the Air Change Regime in the Bedrooms".*

6.11 And the following to be added after the current paragraph 23.1.61 PP3:

> *"The Environmental Matrix was incorporated into the Project Agreement as part of the Room Data Sheets. It was stated to be in the Agreed Form and was defined in the Board's Construction Requirements as setting out the environmental condition requirements of the Board required within each department / unit / space / area.*
>
> *The contract between NHSL and IHSL required IHSL to comply with the Room Data Sheets and Environmental Matrix as part of the Completion Criteria for the Project."*

7 Typographical Errors

7.1 Multiplex would also note there appears to be typographical errors in the dates at paragraph 1.1 PP3L (v) "16 December 2012" should read 2013 and (vii) "25 March 2015" should read 2014.

7.2 Multiplex is happy to discuss any of the proposed corrections/additions to PP3 with the Inquiry Team if it would be of assistance.

Schedule 1 to Multiplex's Response to Provisional Paper 3

Provisional Position Paper 3

The Procurement Process for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences

Volume 1: The Period up to the Close of Competitive Dialogue

Purpose of the Paper

This Provisional Position Paper has been produced to assist the Chair in addressing the terms of reference. It outlines the Inquiry Team's understanding of the procurement process for the award of the contract for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences (RHCYP/DCN) project (the Project). Volume 1 addresses the period from the commencement of the procurement exercise up to the close of competitive dialogue. Volume 2 will address the period from the close of competitive dialogue to the conclusion of the contract. Gaps in the Inquiry Team's understanding are also identified in both volumes. These matters will require to be explored in greater detail at the hearing set to commence on 24 April 2023. Further papers have been produced in relation to the development of the Reference Design and the Environmental Matrix.

An earlier draft of this paper was circulated to Core Participants (CP) for consideration and comment. Those comments have been considered by the Inquiry Team and taken into account in finalising this paper.

In due course, the Chair is likely to be invited by the Inquiry Team to make findings in fact based on the content of this paper. The Inquiry Team does not presently intend to lead further detailed evidence on the matters outlined in it, except where there are gaps in the Inquiry's understanding of the procurement exercise. However, it is inevitable that some of the matters covered in the paper will be touched upon to a greater or lesser extent in the hearing set to commence on 24 April 2023. In addition, it is open to any CP – through evidence or submissions – to seek to correct and/or contradict it. It is therefore possible that the Inquiry's understanding of matters set out in the paper may change, and so the position set out in this paper remains provisional. If it is the case that the Inquiry's understanding does change significantly, a revised edition of this paper may be published in due course.

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1. Introduction & Overview of the Procurement Process

1.1 Following the approval of the Outline Business Case for the Project, NHS Lothian (NHSL) required to conduct a procurement exercise for the Project. The key stages in the procurement process were as follows:

(i) Publication of the Contract Notice – on 5 December 2012
The publication of the contract notice in the Official Journal of the European Union signalled the start of the procurement process. It informed interested parties of the procedure that would be adopted, the value of the contract to be awarded and the procedures that would be adopted for the award of the contract. It stated that variant bids would not be accepted. The estimated value of the contract opportunity (excluding VAT) was between £140,000,000 and £165,000,000.

(ii) Information Memorandum and Pre-qualification questionnaire – 5 December 201~~2~~3.
The Information Memorandum (IM) and Pre-Qualification Questionnaire sought to identify prospective tenderers to invite to participate in dialogue. NHSL stated in the IM that its vision was to create a world-class facility. It confirmed that no variant bids would be accepted.

(iii) Invitation to Participate in Dialogue (ITPD) – 12 March 2013
The ITPD set out more detail on the procurement process and the procedure for assessing the most economically advantageous tender. NHSL's requirements were detailed in the ITPD.

(iv) Competitive dialogue procedure – 12 March 2013 – 13 December 2013
The ITPD set out how the competitive dialogue procedure would work. In short, a series of dialogue meetings would take place with tenderers

to discuss the development of their proposals before NHSL invited final tenders to be submitted.

(v) Invitation to Submit Final Tenders – 16 December 2013

NHSL concluded the competitive dialogue stage on 13 December 2013 and invited the submission of final tenders on 16 December 2012 by issuing a letter to bidders along with a document entitled 'Invitation to Submit Final Tenders' (ISFT) volumes 1 to 3. On 13 January 2014, final tenders were submitted by three tenderers.

(vi) Assessment of tenders and identification of Preferred Bidder – 5 March 2014

NHSL required to assess the tenders against the published criteria to ascertain the most economically advantageous tenderer. A preferred bidder was identified. No formal contract was awarded or concluded at this stage.

(vii) Publication of the Contract Award Decision – 25 March 2015~~5~~4

NHSL published a notice confirming the contract award. IHS Lothian Limited (IHSL) was the economic operator awarded the contract. The value of the contract was £150,014,000.

(viii) Conclusion of Contract and Financial Close – 12 to 13 February 2015

The contract was formally concluded between NHSL and IHSL.

2. Legal Principles

2.1 NHSL required to conduct the procurement exercise for the RHCYP/DCN in compliance with the Public Contracts (Scotland) Regulations 2012 (the 2012 Regulations). That was because the value of the proposed public contract was above the relevant financial threshold for the 2012 Regulations to be engaged.

2.2 The 2012 Regulations consolidated Scots law in relation to public procurement. They gave effect to: Directive 2004/18/EC of the European Parliament and Council of 31st March 2004 on the co-ordination of procedures for the award of public works contracts, public supply contracts and public services; Directive 89/665/EEC of 21st December 1989 on the co-ordination of the laws, regulation and administrative provisions relating to the application of review procedures to the award of public supply and public works contracts, as amended; and Directive 2007/66/EC of the European Parliament and Council of 11th December 2007 amending Council Directives 89/665/EEC and 92/13/EEC with regard to improving the effectiveness of review procedures concerning the award of public contracts.

2.3 The 2012 Regulations sought to ensure open and fair competition for public contracts. The 2012 Regulations set out the procedures to be followed at each stage of a procurement process from the publication of a contract notice (the formal start of the process) through to the publication of the contract award notice (formally concluding the process and stating the party that was to be awarded the contract opportunity).

2.4 Regulation 4(3) of the 2012 Regulations required a contracting authority, at all stages of the procurement exercise, to:

(a) treat economic operators equally and without discrimination; and

(b) act in a transparent and proportionate manner.

2.5 For example, documents issued to prospective tenderers required to be drafted in a manner that would allow for uniform interpretation. Otherwise, the documentation would lack transparency. The courts adopt an objective standard when interpreting procurement documents. The key issue is how the document would be interpreted by the “reasonably well informed and normally diligent tenderer” (the RWIND Tenderer) (Healthcare at Home Ltd v Common Services Agency 2014 SC (UKSC) 247). The documentation must be sufficiently clear to permit of uniform interpretation by all RWIND tenderers.

2.6 The 2012 Regulations contained a range of options in terms of procedure. These included the 'open procedure', 'restricted procedure', 'negotiated procedure' and 'competitive dialogue procedure'. For 'particularly complex contracts', where a contracting authority considered that the use of the open or restricted procedure would not allow for the award of the contract, the contracting authority could use the 'competitive dialogue procedure'.

2.7 A 'particularly complex contract' was defined in regulation 18(1) as meaning a contract:

> "…where a contracting authority is not objectively able to –
>
> (a) define the technical means…capable of satisfying its needs or objectives; or
> (b) specify either the legal or financial make-up of a project or both"

2.8 The contracting authority required to ensure that the number of economic operators invited to participate in the dialogue was sufficient to ensure genuine competition (Regulation 18(13)).

2.9 The 2012 Regulations provided that during the competitive dialogue procedure, a contracting authority:

> "(a) may discuss all aspects of the contract with the participants selected;
>
> (b) must ensure equality of treatment among all participants and, in particular, must not provide information in a discriminatory manner which may give some participants an advantage over others; and
>
> (c) must not reveal to the other participants solutions proposed or any confidential information communicated by a participant without that participant's agreement.
>
> (Regulation 18(22))"

2.10 The contracting authority was entitled to conduct dialogue in successive stages. The contracting authority was also entitled to continue the competitive dialogue procedure until it could identify one or more solutions, if necessary, after comparing them, capable of meeting its needs (Regulation 18(25)).

2.11 In terms of regulation 18(26) of the 2012 Regulations, when the contracting authority declared that the dialogue stage was concluded, it required to:

(a) inform each participant that the dialogue had concluded;

(b) request each participant to submit a final tender containing all the elements required and necessary for the performance of the project on the basis of any solution presented and specified during the dialogue; and

(c) specify in the 'invitation to submit a tender' the final date for the receipt of tenders.

2.12 The contracting authority was permitted to make a request for a participant to clarify, specify or fine-tune a tender referred to in regulation 18(26)(b). However, such clarification, specification, fine-tuning, or additional information could not involve changes to the basic features of the tender if those variations were likely to distort competition or have a discriminatory effect

(Regulation 18(27)).

2.13 The contracting authority required to assess the tenders received on the basis of the award criteria specified in the contract notice, or descriptive document, and required to award the contract to the participant that submitted the most economically advantageous tender (Regulation 18(28)).

2.14 The contracting authority was entitled to request the participant identified as having submitted the most economically advantageous tender to clarify aspects of that tender, or confirm commitments contained in the tender, provided that any such request did not have the effect of modifying substantial aspects of the tender and did not risk distorting competition or causing discrimination (Regulation 18(29)).

2.15 The contracting authority could specify that payments were to be made to a

participant in respect of the participant's expenses incurred in participating in the competitive dialogue procedure (Regulation 18(30). However, payment was optional rather than mandatory.

2.16 In terms of regulation 31, a contracting authority which awarded a public contract is required, no later than 48 days after the award, to send to the Official Journal of the European Union a notice, in the form of the contract award notice in Annex III to Commission Regulation (EC) No. 1564/2005 including the information therein specified.

2.17 A contracting authority is also required to inform any economic operator that submitted a tender, of its decision in relation to the award of the contract by way of a notice in writing (Regulation 32). The notice is required to include:

"(a) the criteria for the award of the contract;

(b) where practicable, the score obtained by–

(i) the economic operator receiving the notice; and

(ii) the economic operator to be awarded the contract;

(c) the name of the economic operator to be awarded the contract;

(d) in the case of an unsuccessful tenderer, a summary of the reasons why the tenderer was unsuccessful;

(e) in the case of an unsuccessful tenderer, the characteristics and relative advantages of the successful tender; and

(f) a precise statement of the standstill period that would apply before the award of the contract."

2.18 The 2012 Regulations imposed a standstill period before a contract could be awarded. A contracting authority required to allow the relevant standstill period to elapse before formally concluding any contract.

2.19 The obligations imposed on a contracting authority by the 2012 Regulations mirrored underlying principles of European law. Procurement exercises, with the potential for cross-border interest, had to comply with Community obligations in addition to the 2012 Regulations. These obligations include

transparency, objectivity, proportionality and non-discrimination (Henry Brothers (Magherafelt) & Others v Department for Education for Northern Ireland [2007] NIQB 116).

2.20 The obligations imposed on a contracting authority do not end at the conclusion of the contract. Any proposed 'material' change to an awarded contract could trigger the need for a new procurement exercise to be conducted (Pressetext Nachrichtenagenteur [2008] ECR I-4401 (hereinafter "Pressetext"). A proposed change will be material if it introduces conditions which, had they been part of the initial award procedure, would have allowed for the admission of tenderees other than those initially admitted or would have allowed for the acceptance of a tender other than the one initially accepted (Wall (C-91/08, 13 April 2010), at paragraphs 37-38). A change will be material if it extends a contract to include the provision of services that were not initially covered in the procurement exercise or if the change alters
the economic balance of the contract in favour of a contractor in a manner not provided for in the original contract (Pressetext, paragraph 37).

3. Roles in the Project

3.1 The governance arrangements in respect of reporting structure, oversight and assurance, and project team structure, changed at various stages of the project. The key roles during the procurement phase following Outline Business Case approval are set out below.

3.2 NHSL was the contracting authority for the purposes of the 2012 Regulations. It was the 'client/owner' with overall responsibility for the procurement of the Project. The project governance arrangements agreed up to the appointment of the preferred bidder were set out in a paper for the Royal Hospital for Sick Children (RHSC) and DCN Re-provision Project Steering Board on 14 December 2012, which was noted with amendments. The Investment

Decision-Maker (IDM) was the Board of NHSL, which was ultimately accountable for the project. The Board delegated oversight of the Project to the Finance and Performance Review Committee (F&PRC), which changed its name to the Finance and Resources Committee (F&RC) in December 2012. NHSL's director of finance was the 'Project Owner'. The 'Project Owner' had the executive responsibility for decision making relating to the Project. The F&PRC established a Project Steering Board (PSB), chaired by the Project Owner.

3.3 The PSB's remit was:

- To assist the Project Owner and Project Director in the decision-making process for issues relating to the project
- To support the Project Owner and Project Director in preparing submissions to the F&RC, to satisfy that Committee's assurance needs on governance and internal control and monitoring of key performance milestones
- To serve as the Capital Management Group, with delegated authority to approve capital enabling works for the Project up to £250,000, and will be the first place to review schemes higher than £250,000
- To be the arbiter of matters arising from the implementation of the Project Design and the Strategic Delivery Programme

3.4 PSB membership included:

- Project Owner (chair)
- Project Director
- Medical Director
- Non-executive member(s) of the Board of NHSL
- A representative from the service
- Project Clinical Director
- Director of Capital Planning and Projects

- Associate Director of Finance
- Project Operational Lead
- Communications Manager
- A representative from the Lothian Partnership Forum
- A representative from the South-East & Tayside Regional Planning Group (SEAT)
- A representative from the Scottish Government
- A representative from the Scottish Futures Trust

3.5 NHSL's technical advisors were Mott MacDonald (MM). They were appointed in terms of a contract signed on 13 June 2011 and 11 October 2011, with a service commencement date of 22 March 2011

3.6 As technical advisor, MM advised NHSL on how to set out the technical specifications for construction works, prepared all the technical schedules and drafted the invitation to participate in dialogue (ITPD). MM drafted the documents with input from MacRoberts and Ernst & Young (NHS Lothian's legal and commercial and financial advisers respectively). Thomson Gray, acting through MM, were cost consultants.

3.7 This was not MM's first involvement in the wider project for a new children's hospital. MM had been involved at an earlier stage when the project was to be capital funded. MM was originally the New Engineering Contract (NEC) Supervisor appointed under the under Frameworks Scotland agreement. That appointment was terminated when the project switched to being funded through a Non-Profit Distributing model (NPD), and MM was reappointed through a different procurement route, the OGC Catalyst framework agreement for Multi-Disciplinary Services. According to a High Level Review of Project Arrangements conducted by PWC, MM's previous involvement in the project was a key reason for their re-appointment for the role.

3.8 MM engaged with NHSL to appoint a number of sub-contractors, also with previous experience of the project. On 10 May 2011, Davis Langdon was

appointed by MM as a sub-consultant with a project management and technical advisory role. MM and Davis Langdon appointed a Reference Design Team made up of sub-contractors, with a member from NHSL taking a project interface role.

3.9 According to a Project Execution Plan, dated September 2011, NHSL's Project Director led the Project Team, made up of the NHSL Project Delivery Team and the Advisory Team. The Project Director was supported by the Commission Director and Commission Manager from MM and Lead Project Manager from Davis Langdon. Together they made up the Project Management Executive. NHSL's delivery team worked with advisors on a number of groups and workstreams, including the Business Case Task Group, and the Procurement, Commercial, Design and Construction and Facilities Management workstreams.

3.10 The Project was to be funded by way of a Non-Profit Distributing model (NPD). Scottish Futures Trust (SFT) was established as a national centre of expertise in infrastructure procurement. SFT provided assistance and expertise in relation to the management of the NPD programme. SFT had a dual role in the project: a 'support' role to provide advice to NHSL regarding NPD procurement; and an 'oversight' role.

3.11 SFT sat on the Project Steering Board and attended meetings of the commercial sub-group and procurement workstream of the Project.

3.12 SFT also sought to ensure value for money for the Scottish Government, by carrying out Key Stage Reviews (KSRs) for the Project. In addition, SFT provided input to SG's Capital Investment Group (CIG) during the approval process for the Outline Business Case and Full Business Case for the Project.

3.13 SFT sat on the Infrastructure Investment Board (IIB), which has an oversight role over all infrastructure procurement in Scotland. SFT's oversight role extended to the terms of the standard NPD project agreement and the financing terms agreed with the preferred bidder. NHSL raised operational matters directly with SFT and, if required, through NHSL's governance

structures, such as at the Project Steering Board where senior representatives of SFT were present.

3.14 Scottish Government Health Directorate (SGHD) was the government sponsor department for the Project. SGHD has ultimate responsibility for health services in Scotland. SGHD made the decision on how the project was to be funded, namely by way of an NPD model rather than a capital model. It approved the business cases and provided the funding for the RHCYP/DCN Project.

3.15 The Scottish Capital Investment Manual (SCIM) sets out the procurement process to be followed for schemes procured under Public Private Partnerships (PPPs) or the NPD model in the NHS in Scotland. It includes guidance on the business case process. SFT was involved in revising the 2009 version of the SCIM Public Private Partnership (PPP) Guide to capture NPD-specific requirements.

3.16 The CIG reviewed all business case stages, including the outline business case and full business case, to recommend approval. Approval would be issued by the Chief Executive, Director General or Ministers of the SGHD. As part of their consideration of the business cases, CIG used Scottish Futures Trust's KSRs and other special input. The chair of the CIG was the Scottish Government Deputy Director (Capital Planning and Asset Management) within the Health and Social Care Directorates.

3.17 While the Scottish Government had responsibility for financing the Project, the Inquiry Team understands that it was NHSL that made the operational decisions in relation to the procurement phase of the Project.

3.18 Health Facilities Scotland (HFS) is a division of NHS National Services Scotland. It is the NHS' centre of expertise on technical aspects of facilities and the healthcare built environment. HFS is responsible for developing, publishing and maintaining technical standards. HFS managed the Frameworks Scotland programme under which the RHSC re-provision project was originally developed prior to the switch to NPD funding. Following this switch, HFS did not have a direct role in the procurement process for the RHCYP/DCN.

3.19 HFS could also be called upon, on an ad hoc basis, to advise on specific issues. For example, any queries related to published guidance such as Scottish Health Technical Memorandums (SHTMs).

3.20 In 2011, HFS was asked to comment on an Independent Design Review commissioned by SFT. The Independent Design Review undertaken by Atkins Consultants Ltd (the Atkins Report) assessed 'the capacity of the project to deliver value for money by meeting the strategic aims of the programme; by making best use of space and opportunities for maximising sharing with other assets; and by minimising the whole-life costs,' and did not focus on or contain information relating to the technical aspects of engineering systems. The Inquiry Team understands that HFS was not called upon to advise on, or review, technical information relating to the ventilation system for the RHCYP/ DCN prior to a preferred bidder being identified by NHSL.

4. Project Oversight and Assurance

4.1 Following the switch to the NPD model, SFT had a significant role in project assurance, by carrying out 'Key Stage Reviews'. Each review was an assessment of whether the project was suitably developed in terms of 'Project Readiness'; 'Affordability'; 'Value for Money'; and 'Commercial Robustness'.

4.2 The KSR process had operated for PPP projects in Scotland prior to the establishment of SFT by Partnerships UK. Partnerships UK was set up in 2000 to succeed the Treasury Taskforce. The KSR process superseded the Gateway Review procedure for NPD Projects.

4.3 Scottish Government raised the issue of whether there was a potential conflict between SFT's advisory role on the Project Board and its role in project assurance/review.

4.4 The potential conflict was addressed within SFT by separating the role of providing advice on the Project Board and the role of undertaking project assurance through KSRs. SFT's role was clarified by Peter Reekie and Mike Baxter at the Project Steering Board on 25 January 2013.

4.5 SFT's role is set out in a number of documents including:

i. letter from the Scottish Government to the NHS Board Chief Executives dated 22 March 2011.

ii. letter from Peter Reekie on behalf of SFT, to Jackie Sansbury, of NHSL, dated 1 June 2011.

iii. email exchange between Barry White (SFT Chief Executive) and James Barbour (Chief Executive of NHSL) on 22 July 2011.

iv. document entitled 'Role of SFT in Project Delivery – RHSC/DCN Project' dated 21 July 2011.

v. SFT guidance, 'Validation of Revenue Funded Projects, the Key Stage Review Process', December 2011

vi. SFT document titled 'Project Assurance', May 2013.

4.6 'Project Assurance' (document vi above) outlined how SFT would undertake the KSR process:

"7. SFT Resourcing of KSRs

…KSRs provide a formal checklist for project teams to consider in relation to their project and also provide a benchmarking opportunity to test the readiness of projects in advance of key milestones in the procurement process. They are designed to require the reviewer, as well as the reviewee, to consider whether the project teams: a) have sufficient clarity over the requirements of the competitive dialogue process, b) have the necessary information and resources available for the tender process to be run efficiently and c) are satisfied that the project will produce a good value for money outcome. In order to ensure a degree of separation between the immediate project team and project sponsoring department and to incorporate external commercial expertise…

…SFT resources KSRs by assembling a small team internally to undertake each review. These review teams normally consist of individuals not directly involved with the specific project. This approach ensures that KSRs are carried out with no external cost to SFT or the

project sponsor. In addition, in line with SFT's evolving approach to supporting the revenue funded investment programme the approach to carrying out validation was remodelled during 2011 to remove the burden on project teams in providing additional background information together with completed KSR checklists to reviewers unfamiliar with the specific circumstances of each project. These KSR checklists are now completed by the relevant SFT staff member as part of his or her ongoing project support role. This reduces the overall delay impact of reviews and ensures that the review process is integrated into the overall project development. It also allows relevant aspects of the review to be considered on an ongoing basis.

In order to preserve the integrity of independent assurance each KSR report is separately reviewed and signed off by a member of the SFT senior management team unconnected with the project. Consequently, the KSR pro-forma checklists have been updated and relevant guidance made available to project teams as well as SFT staff members undertaking KSRs.

The approach has now been fully operational for 12 months and feedback from project teams and sponsors has been entirely positive."

4.7 SFT's dual role was also expected to provide benefits in respect of oversight. With SFT sitting on the Project Board and advising on ad hoc issues it was anticipated that SFT would be alert to issues as they arose and could help to resolve them with NHSL without needing to escalate the matter to the Scottish Government. According to the document prepared by SFT entitled 'Role of SFT in Project Delivery – RHSC/DCN Project':

"...In the unlikely event that agreement on key issues cannot be reached then a three way discussion would take place between the Chief Executives of SFT and NHS Lothian and the Finance Director of NHS Scotland. Beyond that, referral to firstly the Infrastructure Investment Board and secondly Ministers remain as options should very significant issues remain unresolved.

The benefit of SFT's dual role is to reduce the chances of significant

issues being raised during the approvals process or elsewhere and therefore reduce the chances of delay to the Project."

4.8 The Inquiry Team understands that KSRs do not have a strong focus on technical details and do not expressly consider compliance with SHTMs. However, in conducting KSRs, SFT would seek assurance on a number of aspects of the project which may include, for example, compliance with Project requirements. KSRs are the point at which issues or risks could be flagged and highlighted.

5. Guidance and Stages of the Procurement Process

5.1 Some of the guidance relating to NPD projects was still being developed when the procurement process started for the RHCYP and DCN project. Although certain guidance may not have been published, SFT provided NHSL with NPD-specific advice.

5.2 The guidance below was applicable to the procurement process of the RHCYP and DCN re-provision project from the date of publication:

1) Treasury Green Book, 2003
2) Procurement Handbook and Scottish Procurement Policy Notes, 2008
3) Scottish Government's General Procurement Guidance – Competitive Dialogue
4) Scottish Capital Investment Manual (SCIM) 2009 with amendments
5) SCIM Supporting Guidance: Design Assessment in the Business Case Process (2011)
6) Scottish Government Construction Procurement Manual
7) Scottish Public Finance Manual, 2011
8) A policy on Design Quality for NHSScotland, CEL (2010) 19 read in

conjunction with the accompanying 'SCIM Supporting Guidance: Design Assessment in the Business Case Process (2011)', specifically section 1.4 Transitional Arrangements. Prior to 2 June 2010, 'A policy on design quality for NHSScotland' HDL (2006) 582 would have applied.

9) Policy on Sustainable Development for NHSScotland, CEL (2012) 23

10) Prior to 25 January 2012, 'Environmental Management Policy for NHSScotland' HDL (2006) 214 would have applied.

11) Scottish Futures Trust (SFT) Validation of Revenue Funded Projects: The Key Stage Review Process Information Note to Projects, 2011

12) SFT Value for Money (VfM) Assessment Guidance, 2011

13) SFT Value for Money Supplementary Guidance for projects in £2.5 billion Revenue Funded Investment Programme October 2011

14) SFT NPD Guidance Note on Approach to Tender Evaluation, 2013

15) SFT, Standard Project Agreements (hub DBFM & NPD Model) User's Guide June 2011.

16) SFT, Standard Project Agreements (hub DBFM & NPD Model) User's Guide June 2012.

5.3 SFT prepared the following standard NPD contract documents:

1) SFT, Standard Form Project Agreement (NPD Model) 2 June 2012

2) SFT, Standard Form Project Agreement (NPD Model) July 2011

3) SFT NPD Articles of Association, 2011

4) SFT NPD Articles of Association, 2012

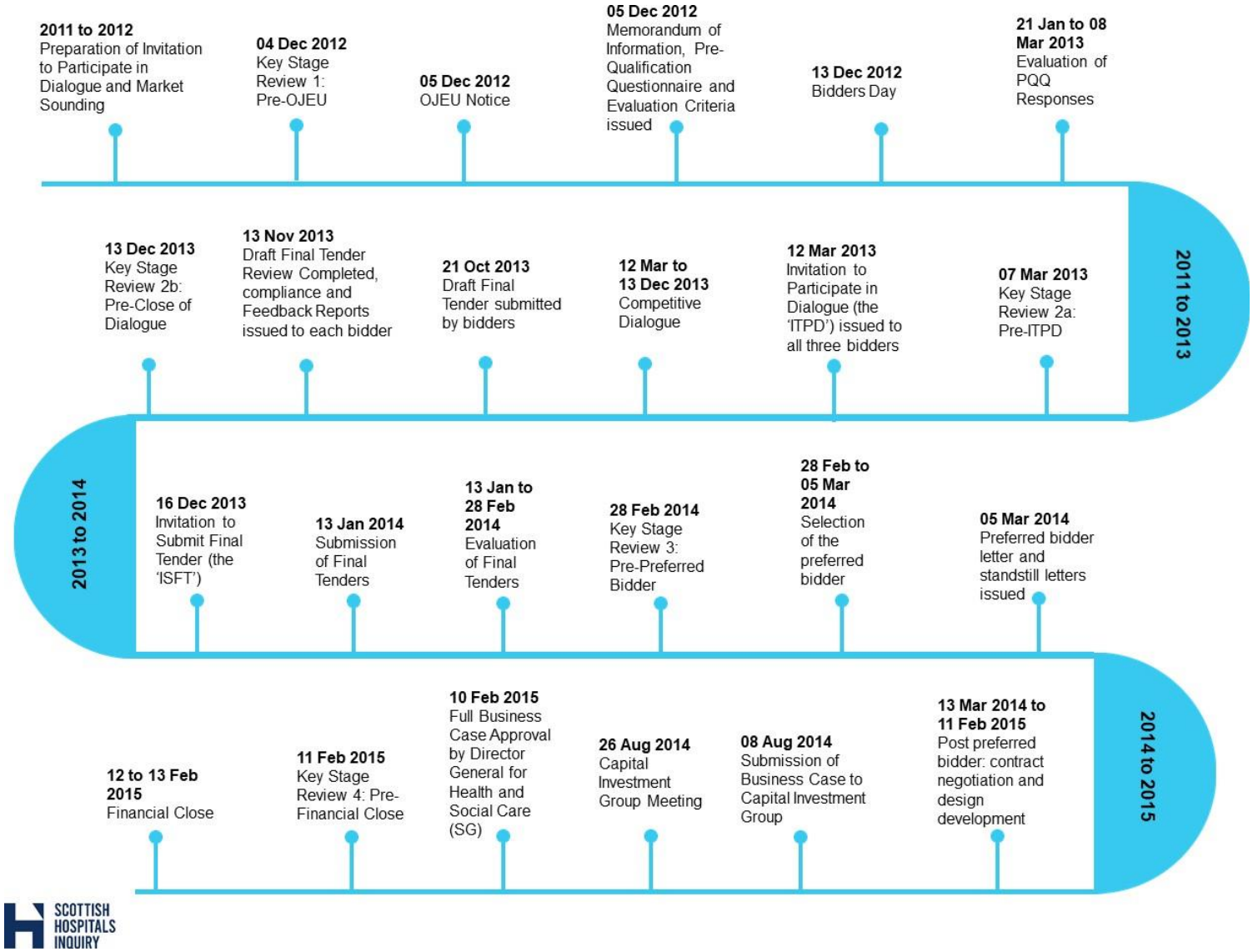
5) SFT NPD Articles of Association, Nov 2014 ESA amendments

6) SFT NPD Articles of Association, Feb 2015

5.4 Procurement timeline with dates

Preparation of Invitation to Participate in Dialogue and Market Sounding	2011- 2012
Key Stage Review 1: Pre-OJEU	4 December 2012
OJEU Notice	5 December 2012
Memorandum of Information, Pre-Qualification Questionnaire and Evaluation Criteria issued	5 December 2012
Bidders Day	13 December 2012
Evaluation of PQQ Responses	21 January 2013 to 8 March 2013
Key Stage Review 2a: Pre-ITPD	7 March 2013
Invitation to Participate in Dialogue ('the ITPD') issued to all three bidders	12 March 2013
Competitive Dialogue	12 March 2013 – 13 December 2013
Draft Final Tender submitted by bidders	21 October 2013
Draft Final Tender Review completed, Compliance and Feedback Reports issued to each bidder	13 November 2013
Key Stage Review 2b: Pre-Close of Dialogue	13 December 2013
Invitation to Submit Final Tender (the 'ISFT') issued to all three bidders	16 December 2013
Submission of Final Tenders	13 January 2014
Evaluation of Final Tenders	13 January 2014 to 28 February 2014
Key Stage Review 3: Pre-Preferred Bidder	28 February 2014
Selection of the preferred bidder	28 February – 5 March 2014
Preferred Bidder Letter and standstill letters issued	5 March 2014
Post preferred bidder: Contract Negotiation and Design Development	13 March 2014 to 11 February 2015
Submission of Business Case to Capital Investment Group	8 August 2014
Capital Investment Group Meeting	26 August 2014

Full Business Case Approval by Director General for Health and Social Care	10 February 2014
Key Stage Review 4: Pre-Financial Close	11 February 2015
Financial Close	12 February 2015 – 13 February 2015


2011 to 2012
Preparation of Invitation to Participate in Dialogue and Market Sounding
04 Dec 2012
Key Stage Review 1: Pre-OJEU
05 Dec 2012
OJEU Notice
05 Dec 2012
Memorandum of Information, Pre-Qualification Questionnaire and Evaluation Criteria issued
13 Dec 2012
Bidders Day
21 Jan to 08 Mar 2013
Evaluation of PQQ Responses
2011 to 2013
13 Dec 2013
Key Stage Review 2b: Pre-Close of Dialogue
13 Nov 2013
Draft Final Tender Review Completed, compliance and Feedback Reports issued to each bidder
21 Oct 2013
Draft Final Tender submitted by bidders
12 Mar to 13 Dec 2013
Competitive Dialogue
12 Mar 2013
Invitation to Participate in Dialogue (the 'ITPD') issued to all three bidders
07 Mar 2013
Key Stage Review 2a: Pre-ITPD
2013 to 2014
16 Dec 2013
Invitation to Submit Final Tender (the 'ISFT')
13 Jan 2014
Submission of Final Tenders
13 Jan to 28 Feb 2014
Evaluation of Final Tenders
28 Feb 2014
Key Stage Review 3: Pre-Preferred Bidder
28 Feb to 05 Mar 2014
Selection of the preferred bidder
05 Mar 2014
Preferred bidder letter and standstill letters issued
2014 to 2015
12 to 13 Feb 2015
Financial Close
11 Feb 2015
Key Stage Review 4: Pre-Financial Close
10 Feb 2015
Full Business Case Approval by Director General for Health and Social Care (SG)
26 Aug 2014
Capital Investment Group Meeting
08 Aug 2014
Submission of Business Case to Capital Investment Group
13 Mar 2014 to 11 Feb 2015
Post preferred bidder: contract negotiation and design development
SCOTTISH HOSPITALS INQUIRY

6. Preparation for Procurement

6.1 During 2011 and 2012 NHSL, with the assistance of advisers and SFT, planned how to undertake the procurement of the RHCYP/DCN Project. This included: market sounding; progressing the design; preparing a programme with target dates for key milestones and preparing the Invitation to Participate in Dialogue (ITPD) which marks the start of a period of Competitive Dialogue.

6.2 Competitive Dialogue is a process through which bidders engage with the procuring authority to refine tender submissions to ensure they meet the contracting authority's stated requirements. At the end of Competitive Dialogue, the final tenders are evaluated by a Core Evaluation Team in accordance with the agreed evaluation criteria and methodology. Detail on the Competitive Dialogue process, tender submission requirements, the evaluation criteria and weightings, and the Board's Construction Requirements for the Project are all contained within the ITPD.

6.3 Market Sounding

6.3.1 Market Sounding usually takes place before the publication of the contract notice. According to the SCIM NPD Guide Section 2: From OJEU to Contract Award, market sounding is useful in situations where assessment of the viability of the project reveals it to be 'borderline', or there are unusual elements in the project. Approaching the market should provide insight into the likely level of interest in the market but without giving any one potential participant a head start in the procurement process. Actions taken at this stage must not prejudice the future procurement process.

6.3.2 SFT carried out programme level market sounding. This involved speaking to market participants to gather insight as to whether there would be bidders for the project and whether or not the project would be 'bankable'. The principal question of the market sounding was "is there a market for 25-year project finance?" That was anticipated to be the greatest challenge in the period following the global financial crisis.

6.3.3 Prior to the procurement process, MM and Davis Langdon spoke to

contractors about the intention to go to market. The aim was to explore the market's reactions to the potential procurement options under consideration, specifically, the extent to which NHSL would develop the design of the hospital, and which aspects of the design would be the responsibility of bidders. The options were as follows:

- Option A – Mandate Clinical Functionality;
- Option B – Mandate Full Design;
- Option C - Mandate More Detailed Exam and Novate; and
- Option D – Exemplar Design

6.3.4 This is referred to at section 5 of the paper titled: 'NHS Lothian RHSC + DCN Little France – Procurement Options' (June 2011) which states:

> "5. Soft Market Testing. A soft market testing exercise was conducted to gauge the market's view on the above proposals. The organisations approached were Morgan Sindall, Brookfield, Galliford Try Investments and Morrison Construction. Each respondent was asked if it they were interested in bidding the project as an NPD. All except 1 confirmed they would be. Each respondent was advised of the option A, B & C approach. The consensus was that bidders would prefer the design to be treated as an exemplar to enable them to have the freedom to truly innovate on the project. Whilst option A gives some degree of flexibility, this was considered to be fairly limited. None of the respondents could see a benefit in Option B over options A & C. And this was considered to be the least favourable. Given that clinical functionality is being fixed under Option A and the ability to innovate is limited by this, all of the respondents preferred Option C primarily because it significantly reduces bid costs. All respondents confirmed that they would be comfortable with a full risk transfer under all 3 options (with the exception of clinical functionality). None of the respondents expressed a concern about the

incumbent design team joining another bidder. The respondents felt that they can engage with other designers who may be able to significantly improve what has been carried out to date."

6.3.5 Project-specific market testing was also undertaken by NHSL, described in the Pre-OJEU Key Stage Review:

"NHS Lothian's Project Director and Director of Capital Planning & Projects have responded to market interest in the project by meeting with representatives of firms potentially interested in bidding for the project.

These meetings commenced from shortly after the procurement route change and have continued to the current date. It is planned that these informal discussions will cease before publication of the OJEU notice.

There have been a variety of bid managers and similar coming forward and the Board representatives have received differing levels of assurance as to the respective corporate interest and depth of consortium members in the project - see abridged list attached.

It is clear from the meetings that initial concerns over a dominant bidder have been alleviated, subject to this being borne out through procurement contract documentation.

Similarly, all the interested parties have indicated high level engagement with SFT regarding the project as part of the NPD programme. NHS Lothian has not been represented at SFT meetings, but the project working group has received feedback from SFT consistent with our informal discussions.

The abridged list attached has been produced for the sole purpose of CIG consideration of the Outline Business Case and should not be more widely distributed.

The Board at this time cannot confirm that there will be multiple bidders as that will be dependent on a positive response from the market to the project…"

"The Project Director and Director of Capital Planning & Projects and/or Associate Director of Finance have met with the following

parties (listed alphabetically) to maximise their knowledge of the project, pre- procurement, and to elicit the levels of interest forthcoming. Where a consortium has been identified, this is shown as a single entry.

All have demonstrated a track record in major UK healthcare/PFI/PPP projects, except FCC whose experience is international.

1. BAM/Balfour Beatty

2. Bouygues

3. Brookfield

4. Carillion

5. FCC

6. John Laing Investments/Laing O Rourke

7. Skanska/Miller

More recently, Carillion advised that it did not intend to bid and the Board considers that Bouygues and FCC are not likely to proceed".

6.4 **Reference Design**

6.4.1 On 12 January 2011 the Finance and Performance Review Committee approved the use of a reference design for the RHCYP/DCN project. The Reference Design essentially involved providing bidders with a more developed design than would otherwise be the case with an exemplar approach and was a factor in decisions regarding the programme for procurement, and the tender evaluation criteria and weightings. It also had implications for what bidders were expected to produce in their final tenders, and how the requirements for bidders were set out in the ITPD. MM developed and advised on the 'Approach to Reference Design' in 2011 and 2012. The Reference Design is the subject of a separate Provisional Position Paper by the Inquiry Team.

6.4.2 A reason for choosing a reference design approach was to retain as much of the design work already undertaken before the Project switched to a different

funding model. Amongst the design work already in development was an 'Environmental Matrix' (EM), prepared by Hulley and Kirkwood (H&K). H&K were M&E engineering consultants sub-contracted by MM when the Project was being procured under Frameworks Scotland and appointed again to form part of the Reference Design team in 2011.

6.4.3 The EM set out the environmental conditions for all the rooms in the hospital. This included the specifications for the ventilation system. The EM is addressed in a separate PPP. The EM was included within the Invitation to Participate in Dialogue (ITPD) that was sent to all bidders. The ITPD outlined NHSL's requirements for the hospital and explained what bidders would need to submit in their final tenders to demonstrate that they could meet those requirements, or they would need to highlight derogations.

6.5 Procurement Programme

6.5.1 All parties were concerned about the timescale for the Project and wished to avoid unnecessary delay. The Project Steering Board Action Notes of a meeting of 13 May 2011 record that the proposed timetable was unacceptable to NHSL, SFT and SGHD given the estimated slippage in operational date from the previous capital funded project.

6.5.2 SFT was keen to reduce timescales, where possible, without impacting the effectiveness of the process. SFT suggested areas where NHSL could look to shorten the programme.

6.5.3 In June 2011, in a paper titled 'Procurement Paper', Gordon Shirreff (SFT) raised the possibility of 'down selecting' to one bidder. The decision was taken not to down-select. This became a factor in discussions about the programme, described below.

6.5.4 On 27 June 2011 a 'Procurement Workstream Meeting' was held, at which Brian Currie (Project Director, NHSL), Gordon Shirreff (SFT), Denise Kelly (Davis Langdon), Paul Hampson (MM) and David Cunningham (Davis Langdon) were present. Ahead of that meeting Paul Hampson circulated additional papers to all attendees including, 'Developed procurement/CD programme'. The minutes record:

"A revised procurement programme was circulated, with suggested days for CD activity included. Discussions took place around format of meetings. Confirmed that allocating 1 full day of dialogue for each bidder during each dialogue cycle was the preferred option. PH/DK/DC to consider how ISOS and ISDS should be handled. Initial thoughts are that these interim phases should be high level review of activity and direction rather than full evaluation given that bidders will also submit a draft final tender as part of the procurement process. This will be reviewed at the next workstream meeting".

6.5.5 The Minutes of the Project Steering Board Meeting of 11 May 2012 note amongst the benefits of the Reference design that it "shortens Competitive Dialogue Phase" and "minimises abortive design cost for unsuccessful bidders."

6.5.6 On 24 October 2012, Donna Stevenson (Associate Director, SFT) emailed Brian Currie (NHSL) in relation to the programme, stating:

" …Programme and Down selection. We think that the programme is longer than it need be in certain respects…In the context of the Board's view that there [sic] all three bidders should be taken through to final tender we consider that the dialogue period of over 8 months could be shortened particularly in the context of the advanced stage of the reference design and the Board's views on the extent of the mandatory elements. The other area where we consider that there is the potential for a reduction in timescale is the period for return of tenders and evaluation, in the dialogue and draft final tenders process."

6.5.7 At a project meeting with SFT regarding "Procurement and Competitive Dialogue Issues", held on 26 October 2012, the following points were raised:

"…SFT's view that a reference design approach allows for less design development through competitive dialogue, therefore lower costs for bidders than without. However, it also increases the threshold for bidder engagement in the first instance. With the market being wary of bid costs, a longer programme is a disincentive.

…

Down selection would take extra time as a step not yet accounted for. It would improve the chances of bidders committed to final submission costs and could therefore be popular with the market.

Discussion re: shortening competitive dialogue period to lengthen time from appointment of preferred bidder to financial close.

[Susan Goldsmith (NHS Lothian)] expressed anxiety if bidders reduced from three to two, particularly if one of the bidders was associated with the current PFI partner. Taking three bidders from ITPD to final submission continues to be NHSL's preferred route."

6.5.8 The PSB minutes of 9 November 2012 state:

"Project Procurement Update

Further to an email from SFT [Peter Reekie] of 1st November 2012 to NHSL [Susan Goldsmith] instructing NHSL, as a condition of funding, to reduce the current length of Competitive Dialogue and consider down selecting, a proposal has been prepared by the Project Team for the Project Steering Board's consideration.

Down Selection

All agreed that given the particular circumstances of this project and the need to maintain a "level playing field" continuously through the procurement process down selection to two bidders would not be prudent.

Compression of Competitive Dialogue + Tender Evaluation Programme.

SFT reiterated the need to create an attractive as possible proposition to the market given the current economic situation. SFT continued that given the decision not to down select, seen as attractive to the market, there was an ever more pressing need to shorten the Competitive Dialogue process. The use of a Reference Design and a Standard Form of Agreement should, in SFT's view, allow such a compression.

The issue of market attractiveness was queried by BC [Brian Currie] who through soft market testing was only aware of one potentially credible bidder from four who had expressed concern that they may not be able to secure Board approval to bid for the project given the potential bid costs. BC added that one potential bidder had expressed concern that too short a programme may inhibit their ability to offer an appropriate package and sufficiently robust tender to secure their Board approval.

[Mike Baxter] commented that Scottish Government's view was that of SFT's and that there is an established general market view prevailing that the current procurement programme for this project is too long causing difficulties when considering bid intentions.

An alternative compressed programme of some 155 days to close dialogue compared to current duration of 209 days was tabled by BC and the merits or otherwise discussed at length by all parties present. The Evaluation duration has also been shortened from 75 days to 39 days in this alternative programme. Be advised that this programme did give the Project Team a number of concerns, particularly given the complexity of the project.

After much debate, all present unanimously agreed to adopt the compressed programme. NHSL, however, stated that their reservations remain and that in practice the decision to close dialogue would still dictate the achievement of this revised programme.

NHSL to communicate the following actions to the project team immediately:

1 OJEU Notice release date to be set as 26th November 2012.

2 Bidders Day to be set for 3rd December 2012.

3 The PQQ period is to be extended to allow for the Festive Period with a return date of 11th January 2013.

4 The activities and durations proposed in the "Compressed Programme (as per SFT Condition of Funding)" recently prepared are to be adopted in full.

5 Financial Close is to **remain** as 7th August 2014.

6 All other milestones/dates and activities post FC are to remain as the current programme

…

8 Down Selection of Bidders will **not** be adopted. Current strategy to prevail ie., 3 Bidders through to close of dialogue and final tender…"

6.5.9 The revised timetable as of 30 November 2012 was as follows (changes in bold):

Stage	
OJEU Dispatch	**5 December 2012**
Bidders Day	**13 December 2012**
Submission of PQQs	**21 January 2013**
PQQ Evaluation and shortlist	**8 March 2013**
Issue Invitation to Participate in Dialogue to shortlist	**11 March 2013**
Submission of Final Draft Tenders	**30 August 2013**
Submission of Final Tenders	**22 November 2013**
Announce Preferred Bidder	Early 2014
Financial Close & contract award	Summer 2014
Start on site	Autumn 2014
Building operational	Summer 2017

6.6 The Core Evaluation Team and development of tender evaluation criteria and weightings

6.6.1 The PSB was responsible for signing off the tender evaluation criteria and weightings that the Core Evaluation Team would use to assess bidders'

proposals and be included in the ITPD. The Inquiry Team's understanding is that bidders would be expected to focus time and resources on elements that, firstly, have a pass or fail scoring and secondly, carry the highest weightings.

6.6.2 Papers presented to the F&PR Committee on 18 April 2012 proposed membership of the Core Evaluation Team and outlined the proposed Scheme of Delegation for Procurement:

> "3.18 The Core Evaluation Team will be led by the Project Director, supported by a lead from each of the technical, financial and legal advisers. In addition, the Project's full time Clinical Director will be on the Core Evaluation Team
>
> 3.19 As agreed by the Committee on 8 February 2012, the Director of Capital Planning & Projects and the Associate Director of Finance will join the core evaluation team for the duration of the procurement phase. In agreement with SFT and SGHSCD, the Director of Capital Planning & Projects will fulfil their requirement for a commercial lead for the Board on the evaluation and competitive dialogue phases through to Financial Close. The Executive Director responsible for the procurement is the Director of Finance. It is important that consistency of membership of the Core Evaluation Team is maintained across the whole bid programme and engagement with bidders.
>
> 3.20 The core evaluation team will be supported by specialist groups led by NHS Lothian personnel including Partnership and Facilities. These groups feed into the dialogue process through the core evaluation team and will engage with specific elements of the bidding process appropriate to those functions. These groups will be further supported by the Project Team and advisers, supplemented by identified leads from NHS Lothian Employee Relations, eHealth, Health and Safety and Procurement."

6.6.3 The scheme of delegation was as follows:

> "The Project Steering Board will sign off the Invitation to Participate in Dialogue (ITPD) evaluation criteria following technical, legal and financial input and workshops involving members of the Project Steering Board and

evaluation groups.

The outcome of the PQQ scoring will be presented to the Project Steering Board, by the Core Evaluation Team, with recommendations that the three highest scoring submissions be invited to proceed to competitive dialogue. The Project Steering Board's recommendation will be brought to the Finance & Performance Review Committee for approval on behalf of the Lothian NHS Board.

In the same way, the outcome of competitive dialogue and the scoring of final submissions will be presented to NHS Lothian Finance & Performance Review Committee with the recommendation from the Project Steering Board, to approve the preferred bidder."

6.6.4 The (Finance and Performance Review) F&PR Committee agreed the membership of the Core Evaluation Team and agreed the proposed scheme of delegation for the non-profit distribution procurement process as outlined in the paper.

6.6.5 The Core Evaluation Team included:

Sorrel Cosens – Project Manager, NHSL

Brian Currie – Project Director, NHSL

Iain Graham – Commercial and Legal Lead, NHSL

Janice Mackenzie – Clinical and Service User Lead, NHSL

Carol Potter – Financial Lead, NHSL

Jackie Sansbury - Operations and Commissioning Lead, NHSL

Andrew Orr – Lead Legal Adviser, MacRoberts

Michael Pryor – Lead Financial Adviser, Ernst & Young

6.6.6 As competitive dialogue was being adopted, the award criteria to be utilised was the "most economically advantageous tender". The factors for evaluating economic advantage of the bid included: period for completion or delivery,

quality, aesthetic and functional characteristics, technical merit, after-sales service, technical assistance and price.

6.6.7 According to the SFT NPD Guidance Note on Approach to Tender Evaluation, SFT requires a 60:40 price versus quality split. This is justified in paragraph 5, page 4, where it is stated that:

> "Procuring authorities should be mindful of the fact that, in contrast to previous revenue funded programmes, there is now more scope to manage the risk of poor quality proposals. The reasons for this include (i) use of exemplar/reference designs that give bidders greater clarity on the procuring authority's expectations (ii) a narrower range of FM services to be included in the projects and (iii) opportunity to use the competitive dialogue procedure to ensure that bidders develop proposals that meet the procuring authority's requirements. Combined with a shift in focus in the current financial climate to 'needs' rather than 'wants', and in order to capitalise on the opportunity in the current financial climate to take advantage of competitive pricing, this suggests that it is appropriate for price to carry a heavier emphasis than it perhaps has in the past.
>
> SFT requires that, in the absence of project-specific factors that might indicate otherwise, price carries a weighting of at least 60% and, correspondingly, that quality is weighted at no more than 40%.
>
> In developing a tender evaluation strategy, it will be important to run sensitivities, based on likely bidding scenarios for the project. SFT will review each project's evaluation methodology to ensure that the mechanisms that are applied in scoring the individual elements of price and quality do not undermine the overall relative weightings that they carry."

6.6.8 NHSL were concerned that the 60% weighting for price and 40% weighting for quality undervalued quality. In a paper to the Finance and Performance Review Committee dated 18 April 2012, Susan Goldsmith and Jackie Sansbury explained the approach to be taken by the PSB:

> "The evaluation criteria will now be influenced by guidance produced by

> Scottish Futures Trust for the pipeline of NPD projects. This sets out high level thresholds of at least a 60%/40% weighting for cost and quality. The Project Team are working with the legal, financial and technical advisers to recognise the cost of quality and to ensure that the Board's key quality objectives are fully met. The reference design for the Project already sets a high design quality threshold and bids will be assessed on the basis of pass/fail. A workshop with Project Board representatives and key project stakeholders is to be held shortly to fully define the 'cost of quality' and articulate the detailed design criteria beyond the reference design standard. This has been described as 'what will the Board be willing to pay more for'. This requires to be balanced against the SGHSCD/SFT approach to 'ensure as economic an outturn as possible and not to assume that all the budget is available without challenge'".

6.6.9 Between March and April 2012, NHSL held a first round of workshops to determine the elements that would make up the overall quality score. Workshops were attended by the Core Evaluation team and individuals from NHSL's advisers, namely MM and Davis Langdon. An ITPD Evaluation Workshop on 'Design and Construct' (which includes mechanical and electrical engineering) took place on 10 April 2012. According to the meeting schedule:

> "The purpose of the workshop is to review and agree in outline, the Design & Construct Evaluation Criteria. The first part of the work shop will be to agree the criteria and then those that should be deemed pass or fail and those that should be marked. Each of the criteria will then be examined in greater detail to obtain agreement, in outline, the issues each of the criteria should address. The importance of each criteria will also be assessed on a high, medium, low scale so that marking can be allocated for agreement with the forum attending at a later date. This will be carried out following a review of the feedback received from the Strategic and Management Evaluation Workshop and the FM Evaluation Workshop."

6.6.10 An NHSL document with the draft ITPD evaluation criteria was produced in advance of the workshop. For 'D8 M&E engineering service design', the document stated that:

"Bidders shall provide an environmental conditions/room provisions matrix for both mechanical and electrical services for each room in the Facilities.

Whilst Bidders are required to undertake their own design, NHS Lothian has provided draft matrices as part of the ITPD. Bidders are required to complete their matrices in identical format, or confirm general acceptance of NHS Lothian's draft matrices, highlighting differences on an exception basis."

6.6.11 CEL 19 (2010) is addressed in detail in the Reference Design and Environmental Matrix PPPs. It required NHSScotland bodies to utilise room data sheets produced using the ADB (Activity Database) system for briefing, design and commissioning of new hospitals. If a different tool is to be adopted, the onus is placed on the NHS body to demonstrate that it is of equal value. It is not clear to the Inquiry Team why a 'matrix' was adopted by NHSL and how it had been demonstrated that this approach was of equal value to room data sheets produced using the ADB system. This issue will require to be explored with witnesses at the hearing diet commencing on 24 April 2023.

6.6.12 The first page of the document stated that the scoring approach was 'Scored' as opposed to 'Pass/Fail'. However, the detailed breakdown for D8 proposed the scoring approach as "Pass/Fail or marked to relate to comfort". The comments section stated "high as it relates to environmental comfort".

6.6.13 MM and Davis Langdon also produced a draft of the ITPD evaluation criteria 'for discussion' where M&E engineering service design proposals were scored 'medium'.

6.6.14 A second draft of the ITPD evaluation criteria was produced, dated 24 April 2012. The scoring of D8 "clarity, robustness, quality and level of M&E engineering service design proposals" was now assessed as "medium" with a suggested marking of 1%. No comment has been provided for the change in scoring approach.

6.6.15 A second and third round of workshops were held from June to August 2012 to discuss and agree the criteria and weightings for 'Strategic and

Management Approach', 'Design and Construct' and 'Facilities Management', as well as the weightings split between these three categories. The "draft ITPD evaluation criteria calibration scoring" was approved by the Project Steering Board on 10th August 2012.

6.6.16 In June 2012, NHSL's financial advisors, Ernst and Young, provided advice on the evaluation framework for the final evaluation of bids and developed an evaluation methodology that sought to incorporate features that maximise the impact of quality evaluation. The approach, aimed at achieving the desired balance between price and quality while still meeting SFT requirements that price accounts for 60% of the available marks and quality 40%. This was also addressed in a further discussion paper produced in September 2012 entitled "Combining Price and Quality in Evaluation".

6.6.17 According to the paper produced by Ernst and Young in September 2012:

- "The majority of quality evaluation elements are assessed on a pass/fail basis, with the scored element reserved for key differentiating factors.
- Commercial considerations are dealt with entirely within the price score, freeing the available quality marks to be focussed on design, build, FM and management/strategic issues.
- The lowest price bid is awarded the maximum 60 marks. The quality mechanism has been set up so that the highest scoring quality proposals are given the maximum 40 marks, with the quality score of other bids being marked in proportion to this.
- The price marks awarded are calibrated so that proposals that are close in price terms are given similar price marks, thus making the quality score more likely to be the deciding factor. As price differentials become greater, the price marking system becomes more sensitive so that a bid significantly more expensive than the lowest priced will lose a far higher number of price marks."

6.6.18 On 26 October 2012 at a Project Meeting took place with SFT on

'Procurement and Competitive Design Issues'. The paper by Ernst and Young was discussed. According to the minutes of that meeting:

> "PR [Peter Reekie, SFT] emphasised that there was no intention to undervalue quality in the standard form proposed by SFT and that the reference design allows NHSL to specify a high degree of quality in mandatory criteria. SG [Susan Goldsmith, NHSL] accepted that the building will be of good quality, following the work of the reference design to specify the Board's requirements, and highlighted NHSL's need to find a partner for a 25 year relationship beyond construction was a critical quality issue.
>
> It was agreed that the distribution curve used for price evaluation is sensitive. NHSL to focus on finalising the curve and review FM weightings on ITPD questions.
>
> Pass/fail questions
>
> Discussion about questions with a clear compliance threshold that bids could be judged to simply pass or fail. Agreed that NHSL would revisit these questions.
>
> Awarding the maximum quality score to the highest scoring bid
>
> The Project Agreement (PA) outlines the high quality threshold set; any derogations to change the minimum standards suggest that the Project Co are expecting to fail to deliver what NHSL has specified is a quality service. Derogations have to be agreed.
>
> Consensus that there should be a mechanism for adjusting the scores and NHSL will review the legal and commercial elements to be scored against 'price'.
>
> Awarding the maximum score of 40 to the highest scoring bid in terms of quality
>
> Agreed that rather than pursue the proposal to automatically award a maximum score of 40 to the highest quality bid, NHSL would look at calibrating the quality threshold. DO'K [Dennis O' Keeffe] suggested that

the quality threshold should be based on performance, process and product.

MB [Mike Baxter, Scottish Government] supported the need to reassure staff and Board members that NHSL will not accept bids below a 'quality threshold', and this should be determined."

6.6.19 Scottish Ministers accept that they were aware of the discussion regarding the percentage weighting for price and quality but consider that this was a decision for NHSL.

6.6.20 In the final ITPD, a pass/fail threshold was used for some elements. This approach was adopted to ensure a minimum standard to which bidders must comply before progressing to the next stage in the procurement process. The scored elements were used to differentiate between bidders who had already met the minimum requirements.

6.6.21 The final break-down of the quality evaluation criteria included within the ITPD was as follows:

Strategic and Management Approach – 5%

Approach to Design and Construction – 23%

Approach to Facilities Management – 12%

6.6.22 The 'Approach to Design and Construction' was made up of 31 separate criteria, of which 12 were scored and the rest assessed on a pass or fail basis.

Quality Evaluation Criteria Reference	Quality Evaluation Criteria	Quality Evaluation Basis	Quality Evaluation Criteria Weighting
C1	Clarity, robustness and quality of approach to meeting the stakeholders requirements in their design	Scored	2.64
C2	Clarity, robustness and quality of approach to design quality	Scored	1.85

C3	Clarity, robustness and quality of architectural and landscape design	Scored	2.64
C4	Clarity, robustness and quality of approach to delivering innovation	Scored	2.64
C5	Clarity, robustness, and quality of approach to adaptability and flexibility	Scored	2.64
C6	Clarity, robustness and quality of way finding and signage proposals	Scored	1.06

Quality Evaluation Criteria Reference	Quality Evaluation Criteria	Quality Evaluation Basis	Quality Evaluation Criteria Weighting
C7	Clarity, robustness and quality of interior design proposals	Scored	2.64
C8	Clarity, robustness and quality of M&E engineering design proposals	Scored	1.06
C9	Clarity, robustness and quality of natural and artificial lighting proposals	Scored	1.06
C10	Clarity, robustness and quality of energy management proposals	Scored	1.85
C11	Clarity, robustness and quality of equipment proposals	Scored	1.06
C11A	Compliance with Minimum Level of Group 1 Equipment	Pass/Fail	
C12	Compliance With Mandatory Reference Design Requirements	Pass/Fail	
C13	Acceptable approach to achieving planning permission	Pass/Fail	
C14	Acceptable vertical and horizontal movement strategy	Pass/Fail	
C15	Acceptable ICT strategy	Pass/Fail	
C16	Acceptable fire planning strategy	Pass/Fail	
C17	Acceptable structural design proposals	Pass/Fail	
C18	Acceptable services, utilities and infrastructure proposals	Pass/Fail	
C19	Acceptable approach to achieving required BREEAM rating	Pass/Fail	
C20	Acceptable post Preferred Bidder stage design development proposals and design programme	Pass/Fail	
C21	Compliance with Board's Construction Requirements	Pass/Fail	
C22	Acceptable design life proposals	Pass/Fail	
C23	Acceptable construction programme and approach to monitoring	Pass/Fail	
C24	Clarity, robustness and quality of construction methodology	Scored	1.85

Quality Evaluation Criteria Reference	Quality Evaluation Criteria	Quality Evaluation Basis	Quality Evaluation Criteria Weighting
C25	Acceptable approach to commissioning and handover	Pass/Fail	
C26	Acceptable approach to quality and environmental management systems	Pass/Fail	
C27	Acceptable approach to health and safety management	Pass/Fail	
C28	Acceptable approach to compliance with CDM regulations	Pass/Fail	
C29	Robustness of technical costs	Pass/Fail	
C30	Acceptable list of summary assumptions, clarifications and derogations	Not scored	
C31	Acceptable Interface Proposals	Pass/Fail	

6.6.23 A ‘Pass’ would be awarded if the Bidder’s approach:

- Demonstrates a satisfactory understanding of the Board’s requirements; and
- delivers a satisfactory level of compliance with the Board’s requirements.

6.6.24 There was no further elaboration on what would be deemed ‘satisfactory’.

6.6.25 C21 concerned ‘Compliance with Board’s Construction Requirements’. It was scored on a ‘Pass/ Fail’ basis.

6.6.26 C8 ‘Clarity, robustness and quality of M&E engineering design proposals’ was given a quality evaluation criteria weighting of 1.06. C10 'Clarity, robustness and quality of energy management proposals’ was given a weighting of 1.85. These are the elements that relate to bidders proposals for ventilation design. These were lower than other criteria, such as interior design, architectural and landscape design, adaptability and flexibility, which had a score impact of 2.64.

7. OJEU Notice, Pre-Qualification Questionnaire and the Memorandum of Information

7.1 The Project was advertised to prospective bidders through publication of a contract notice in the Official Journal of the European Union (OJEU). According to the Scottish Capital Investment Manual Section 2 paragraph 4.4, the NHS body 'should be ready to issue the Memorandum of Information and a Prequalification Questionnaire to everyone who responds to the contract notice and these documents should be prepared in advance of issuing the contract notice in OJEU.'

7.2 The Scottish Capital Investment Manual Section 2 paragraph 4.5 states, the Memorandum of Information and accompanying Pre-Qualification Questionnaire should aim to:

- "enable potential participants to decide whether they want to continue to be involved in the bidding process by providing appropriate information about the NHS body, the project and its prospects;

- invite expressions of interest in bidding for the project from the private sector;

- obtain information that will establish whether potential participants are technically and financially capable of delivering the project. NPD contracts are complex and expensive to procure. NHSScotland bodies must ensure that only consortia with the appropriate resources and skills-base are selected;

- enable the NHSScotland body to gain an understanding of the economic, financial and technical status and previous experience of the potential participants."

7.3 Regulations 23-26 of the Public Contracts (Scotland) Regulations 2012 set out the criteria for the rejection of economic operators, information as to economic and financial standing and information as to technical or

professional standing that can be used as qualifying criteria to determine the suitability of prospective tenderers.

7.4 According to a report produced for the Finance & Performance Review Committee on 18 April 2012:

> "The OJEU notice has been approved by the Project Steering Board. The date for the Bidders Day to launch the project onto the market cannot be set until approval of the OBC and to proceed to OJEU has been granted.
>
> The information and Pre-qualification Questionnaire (IM/PQQ), with evaluation criteria, have been developed through the Commercial Workstream with NHS Lothian's technical, legal and financial advisers, and with direction from SFT…The content has been approved by the Project Steering Board and the designed documentation will be shared as a final draft with NHS Lothian Directors in mid-April."

7.5 The Outline Business Case was approved on 18 September 2012 although it was noted in the approval letter that the OJEU notice could not be issued until negotiations with Consort regarding enabling works were successfully concluded. On 4 December 2012, Derek Feeley, the Director General Health and Social Care and Chief Executive of NHS Scotland sent a further letter approving the publication of the OJEU notice subject to certain conditions, including the successful completion of the Pre-OJEU Key Stage Review.

7.6 The Pre-OJEU KSR was completed on 4 December 2012. It confirmed that 'The draft OJEU, PQQ and Information Memorandum have been completed, subject to final points checking and have been reviewed by the Board's advisers and SFT's comments have also been taken into account.' The OJEU Notice was published on 5 December 2012.

7.7 The Memorandum of Information (IM) provided information about: the procuring authority; the project and opportunity; the site and work to date; the project management arrangements; the completion and submission of PQQ responses; conditions for participation; and the pre-qualification evaluation process. Annex 1 contained the Pre-Qualification Questionnaire.

7.8 The IM explained that the PQQ evaluation would comprise the following stages:

> all PQQ submissions submitted in accordance with the PQQ submission requirements…will firstly be checked by the Board for compliance and completeness. Non-compliant and/or incomplete PQQ submissions may be rejected by the Board
>
> the Board will then carry out a preliminary assessment of each remaining PQQ submission to evaluate the 'Pass/Fail' questions. If a Candidate is assessed as failing any such question their PQQ submission will be rejected by the Board. Candidates should note that the preliminary assessment will include an assessment of each remaining Candidate's financial standing submission(s) and any Candidate's PQQ submission assessed as failing the financial standing evaluation will be rejected by the Board.
>
> the Board will then carry out a detailed assessment of each remaining PQQ submissions to evaluate the scored questions. During the detailed assessment the Board will calculate a score for each remaining PQQ submissions using the section weightings and question sub-weightings shown in the evaluation table at paragraph 8.6…
>
> …The scored questions identified in the evaluation table at paragraph 8.6 will be scored using the scoring system described at paragraph 8.4."

7.9 Paragraph 8.4 of the IM stated: "Evaluation guidance is provided in the PQQ for each question that will be scored. Unless otherwise indicated, responses to each question will be scored out of 10 and based on the degree to which the response covers the range of factors specified in the relevant evaluation guidance and as appropriate/relevant to the question, depth of understanding of the issues and/or quality of examples and experience".

7.10 The evaluation table at paragraph 8.6 of the IM included the following details:

Section	Subject	Status	Question Sub Weighting	Section Weighting
A	The Candidate			30%
	General Information	Not scored		
	Resourcing	Scored	30%	
	Capacity	Scored	10%	
	Working Together	Scored	30%	
	Conflicts	Pass/Fail		
	Raising Finance	Scored	30%	
	Financial capacity & economic standing	Pass/Fail		
		Sub-weighting Total	100	
	Construction Contractor: minimum turnover	Pass/Fail		
	Construction Contractor: minimum financial standing	Pass/Fail		
	Subordinated Debt Providers: minimum financial standing	Pass/Fail		
	CDM ACoP	Pass/Fail		

Section	Subject	Status	Question Sub Weighting	Section Weighting
B	Construction Contractor			30%
	General information	Not scored		
	Healthcare experience PPP	Scored	40%	
	Healthcare experience non-PPP	Scored	20%	
	Experience operational site	Scored	15%	
	Other experience	Scored	10%	
	Claims	Scored	5%	
	References	Not scored separately		
	Quality	Pass/Fail		
	Health & Safety	Pass/Fail		
	Environmental	Pass/Fail		
	Employment	Pass/Fail		
	Employment	Scored	5%	
	Employment	Scored	5%	
	Employment	Pass/Fail		

Section	Subject	Status	Question Sub Weighting	Section Weighting
		Sub-weighting Total	100	

Section	Subject	Status	Question Sub Weighting	Section Weighting
C	FM Service Provider			30%
	General information	Not scored		
	Healthcare experience PPP	Scored	45%	
	Healthcare experience non-PPP	Scored	25%	
	Other experience	Scored	15%	
	Claims	Scored	5%	
	References	Not scored separately		
	Quality	Pass/Fail		
	Health & Safety	Pass/Fail		
	Environmental	Pass/Fail		
	Employment	Pass/Fail		
	Employment	Scored	5%	
	Employment	Scored	5%	
	Employment	Pass/Fail		
		Sub-weighting Total	100	

Section	Subject	Status	Question Sub Weighting	Section Weighting
D	Designated Organisations*			30%
	General information	Not scored		
	Healthcare experience PPP	Scored	40%	
	Other PPP experience	Scored	20%	
	Healthcare experience non-PPP	Scored	25%	
	Other experience	Scored	15%	
	References	Not scored separately		
		Sub-weighting Total	100	
E	PQQ declaration	Not scored		
F	Statement of Good Standing	Not scored		

			Weighting Total	100%

7.10.1 "* Each designated organisation will be scored separately with sub-weighting split evenly across them."

7.11 The IM also stated, at paragraph 8.5, that: "Following the detailed assessment stage, the Board shall rank the remaining Candidates in numerical order against their cumulative score. A short list of Candidates to be invited to participate in the dialogue stage shall be drawn up. The Board only intends to select three Candidates for inclusion on its short-list. The three short-listed by the Board shall be those achieving the highest scores during detailed assessment."

7.12 Three candidates submitted a PQQ response: B3 (also referred to as 'Candidate A', later 'Bidder A'); Integrated Health Solutions Lothian (also referred to as 'Candidate B', later 'Bidder B' or 'IHSL'); and (c) Mosaic (also referred to as 'Candidate C', later 'Bidder C').

7.13 Evaluation of PQQ responses and the preparation of the PQQ shortlist took place from 21 January 2013 to 8 March 2013.

7.14 The PQQ Core Evaluation Team included: Brian Currie (NHSL Project Director), Carol Potter (NHSL Associate Director of Finance), Iain Graham (NHSL Director of Capital Planning & Projects) Jackie Sansbury (NHSL Chief Operating Officer), Janice Mackenzie (NHSL Clinical Director), Richard Cantlay (MM Technical Advisor), Michael Pryor (Financial Advisor with Ernst & Young) and Andrew Orr (Legal Advisor with MacRoberts).

7.15 The Core Evaluation Team received Evaluation Support, including technical advice on design, construction and facilities and management. The lead on design and construction was Andrew Scott (MM) and on Facilities Management was Simon McLaughlin (Davis Langdon). The Evaluation Support team also received additional specialist support. Specialist support on NHSL Infection Control was provided by Fiona Cameron, head of NHS Lothian Infection Prevention & Control Services.

7.16 At the PSB meeting on 25 January 2013, Peter Reekie (Director of Finance and Structures, SFT) requested that NHSL consider accelerating the evaluation of PQQ due to the relatively low number of returns received. Brian Currie responded:

> 'due and proper process is upper most in the evaluation team's mind and that a detailed programme of evaluation activities has been agreed which may prove difficult to re organise at short notice. However, the intention is to make final recommendation to next P St Bd on the 22nd of February, some 7 business days ahead of current programme A subsequent extraordinary F+R Meeting may be required to be called to authorise progression to dialogue – SG to advise. 11th March commencement of dialogue remains target."

7.17 Brian Currie gave the outcome of the PQQ evaluation process in a paper presented to the PSB held on 22 February 2013. Mosaic scored 75 out of 100, B3 scored 74, and IHSL scored 72. The PSB unanimously approved the recommendation that all three candidates be invited to participate in dialogue.

7.18 IHSL's scores for 'Candidate' and 'Designated Organisations' pulled their overall score down. The 'Candidate' refers to the bidding consortium, while 'Designated Organisations' include sub-contractors identified by the bidding consortium to provide particular services. Other parties assessed in the PQQ are the Construction Contractor and FM Contractor. For IHSL's bid, the 'Candidate' was IHSL, the 'Construction Contractor' was Multiplex, the 'FM Contractor' was ETDE, FM and 'Designated Organisations' included HLMAD, Wallace Whittle and Robert Bird.

7.19 In the PQQ candidate feedback for IHSL it was noted that "that Wallace Whittle have no health PPP experience." NHSL has advised the Inquiry Team that although Wallace Whittle may not have previously worked on a health PPP project, they had both health and PPP experience separately. MM have advised the Inquiry Team that Wallace Whittle having no health PPP experience was flagged as something to be aware of, but it would not prevent a client moving forward with that consortium. The evaluation process looks at all parts of a consortium team. MM informed the Inquiry Team that in it's experience, it is unrealistic to expect that there would ever be a perfect consortium. A lack of PPP experience cannot lead to a "fail" and instead the bidder will be scored

with fewer marks.

8. Bidders Day

8.1 A bidders day was organised for 13 December 2012. Susan Goldsmith, Director of Finance (NHSL) gave an overview of the project, Peter Reekie, Director of Finance (SFT), gave insight into the wider NPD pipeline and Brian Currie, Project Director (NHSL), gave detail on the project, the reference design and the procurement process.

8.2 The speakers notes for the bidders day contain the following information relating to design documentation:

> "To clarify what we really mean by a Reference Design:
>
> What were the attractions given the departure from previous PPP/PFI projects where an "exemplar" design was the norm?:
>
> - assists with the OBC and accuracy of pre-procurement costing.
> - provides greater certainty over the final design solution.
> - assists significantly in defining a quality threshold.
> - optimises the input required from stakeholders and in particular clinicians and clinical management teams.
> - utilises programme time available as a result of essential parallel activities prior to commencement of procurement.
> - reduces risk and bidding costs to bidders, we would contend.
> - shortens the competitive dialogue phase.
>
> …
>
> Mandatory Requirements Comprises the information that defines Operational Functionality* and is indicated in:
>
> - Interdepartmental Layouts (1:500)
> - Departmental Layouts (1:200)
> - Room Layouts (1:50) for Key and Generic Rooms Compulsory Requirements
> - Planning in Principle as granted by The City of Edinburgh Council.
> - Interface, access/egress and infrastructure provisions enshrined in

(SA6 + SA Enabling)

- Clinical, D+C and FM Output Specs.

The Reference Design drawings are a diagram or graphical representation of these requirements.

*We refer to Operational Functionality as opposed to Clinical Functionality since some of the mandatory areas of the Reference Design will cover non-clinical functions such as Supplies, Storage, Distribution and Waste Management (Soft FM) and ICT Requirements).

Operational Functionality means:

- The point of access to and within the development, buildings and departments.
- The adjacencies between different departments.
- The adjacencies between rooms within the departments.
- The quantity, description and areas of those rooms and spaces shown on the Schedule of Accommodation.

The level of design development can be described as approximating to RIBA Plan of Work Stage C + (Concept Design) and covers 52% of all spaces at 1:50 scale including the key and generic rooms.

Bidders will be required to generate up to 10 other room types at 1:50 scale for final tender with the remainder being concluded before Financial Close.

Room Data Sheets

Standard format Room Data Sheets have not been prepared by the Board for the Project instead specific room requirements are detailed in a combination of the following documents:

- General Requirements
- Clinical Output Spec
- Environmental Matrix
- Schedule of Operational/Design Notes
- Equipment Schedule

- Schedule of Accommodation
- Operational Functionality elements of the Reference Design

Note: Bidders will be required to develop Room Data Sheets as part of their proposals. The full set of RDS will be completed from appointment of Preferred Bidder to Financial Close.

Schedule of Accommodation

The Schedule of Accommodation, based on the Reference Design drawn layouts, along with the Target or Model (Minimum) Schedule of Accommodation will be issued to Bidders.

This 'Drawn' Schedule of Accommodation for Plant Rooms and Hard FM Rooms is indicative only and should certain other rooms vary in area terms from the Model Schedule this is acceptable on a specific room only basis.

Indicative Requirements

Bidders will be encouraged to propose innovative solutions in response to:

- Information that has been developed to verify the feasibility of the Reference Design in terms of architecture and engineering.
- Information developed for issue to Bidders in regard to site and servicing information. Bidders must however refer to the Board's Construction Requirements for the detailed requirements for all such indicative elements of the Reference Design for which they may ultimately carry the risk.

Note: The Board's Construction Requirements will always take precedence over the Reference Design for matters which do not define Operational Functionality"

9. The Invitation to Participate in Dialogue (ITPD)

9.1 The ITPD sets out the contracting authority's requirements and the information needed by bidders to prepare their tenders. According to the SCIM:

"A well drafted and comprehensive ITPD is vital to the smooth running of

a project. It will help the participants produce accurate proposals and will avoid misunderstandings that can lead to later problems."

9.2 The SCIM recommends that the ITPD should follow a 'standard form' and include:

- Volume 1: Instructions to Participants (include schedule of deliverables, weightings and contact details)
- Volume 2: Standard Form Project Agreement including project specific amendments
- Volume 3: Technical Specification for Construction Works
- Volume 3 Annex A: Clinical Output Specifications
- Volume 3 Annex B: Non-clinical Output Specification
- Other standard documents will form further appendices

9.3 The ITPD issued for the RHCYP/DCN project is comprised of four volumes:

9.3.1 Volume 1: This set out the general requirements of NHSL in relation to the Project, including:

i. Background information on the Project;
ii. the arrangements for competitive dialogue;
iii. use of the Reference Design including mandatory and indicative elements and the concept of Operational Functionality;
iv. the informal submissions bidder should provide;
v. the Draft Final Tender requirements and the envisaged Final Tender requirements;
vi. evaluation requirements and the evaluation weighting criteria; and
vii. Appendix A(ii) – Submission Requirements.

9.3.2 Volume 2: This set out the contractual requirements of NHSL in relation to the Project in a 'NPD Project Agreement' and 'NPD Articles of Association'.

9.3.3 Volume 3: known as the 'Board Construction Requirements' sets out the specific technical requirements of NHSL in relation to the Project, these being

the construction (clinical and non-clinical) requirements, equipment requirements and facilities management requirements:

i. Appendix A included 'interface with Campus Site and/or Campus Facilities.
ii. Appendix B included the Interface Output Specification.
iii. Appendix C included the ~~draft~~ Reference Design[1] Environmental Matrix.

9.3.4 Volume 4: This sets out the Data Room available to bidders, which was used for sharing information. Included in Volume 4 was the Reference Design, the M&E Reference Design Approach produced by Hulley and Kirkwood, the Thermal Comfort Analysis produced by Hulley and Kirkwood; and the Section 6 SBEM Compliance Report produced by Hulley and Kirkwood

9.4 The following section of this paper provides extracts from the ITPD that relate to

- NHSL's requirements for mechanical and electrical engineering, specifically with regard to the ventilation system;
- the design documents in which ventilation requirements are captured and which bidders were expected to produce; and
- the status of the information contained in or with the ITPD.

9.5 The ITPD was revised during Competitive Dialogue to reflect changes to NHSL's requirements.

9.6 **Volume 1**

9.6.1 An 'Important Notice' at the beginning of Volume 1 of the ITPD states:

> "Any summaries or descriptions of documents or contractual arrangements contained in any part of the Invitation cannot be and are not intended to be comprehensive, nor any substitute for the underlying documentation (whether existing or to be concluded in the future) and are in all respects qualified in their entirety by reference to them."

[1] If the Inquiry is not minded to make this deletion, then Multiplex would ask that the following be inserted immediately after "draft Environmental Matrix": *which bidders were required to confirm acceptance of, highlighting any changes on an exception basis"*

9.6.2 Section 2 of Volume 1: 'Technical Overview' provides an overview of the technical requirements of the Project. Section 2.4.1 provides an overview of the design and construction elements and states:

> "The specific requirements for the Facilities to be provided are set out in the Board's Construction Requirements. This comprises: -
>
> - General Requirements;
> - Specific Clinical Requirements; and
> - Specific Non-Clinical Requirements.
>
> The Board's Construction Requirements are set out in Section 3 of Volume 3 of the ITPD and will ultimately form Section 3 of Schedule Part 6 (Board's Construction Requirements) of the NPD Project Agreement...
>
> …. it should be noted that certain elements of the design as they relate to aspects of Operational Functionality are mandatory, as described below and in Appendix E (Reference Design Elements) of Volume 1 of the ITPD."

9.6.3 Section 2.5 sets out the 'Reference Design and Mandatory Reference Design Requirements' (this is addressed in detail in the Inquiry's PPP on the Reference Design). The sub-sections describe design documents that bidders were required to develop as part of their bids and, if successful, during the preferred bidder stage. It also explains which elements of these design documents had already been developed as part of the reference design. Section 2.5 addressed a number of issues including:

> 2.5.1 Schedule of Accommodation and Reference Design Schedule of Accommodation
>
> 2.5.2 Room Layouts
>
> 2.5.3 Room Data Sheets.

9.6.4 Section 2.5 does not explicitly address requirements relating to building services engineering solutions, mechanical and electrical engineering or

ventilation more specifically. However, section 2.5.3 does contain information on room data sheet production.

9.6.5 Section 2.5.3 sets out the requirements for the production of Room Data Sheets and mentions the Environmental Matrix as a source of 'room information' to be used to compile room data sheets:

> "Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the 'Room Information') are detailed in a combination of the following documents:
>
> - The Board's Construction Requirements;
> - The Environmental Matrix;
> - The Schedule of Operational/Design Notes;
> - The Equipment Schedule;
> - The Equipment Responsibility Matrix;
> - The Draft Schedule of Accommodation; and
> - The Operational Functionality elements of the Reference Design.
>
> During Dialogue Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings have been prepared. For the avoidance of doubt this shall include all Key Rooms and Generic Rooms in addition to those rooms identified in the table at paragraph 2.5.2 above. The Room Data Sheets will form part of the Bidders proposals. The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close."

9.6.6 Section 2.6 of the ITPD Volume 1 addresses 'Indicative Elements of the Reference Design':

> "During the preparation of the Mandatory Reference Design Requirements, other information has been generated both as a by-product

of preparing the Reference Design itself and as a general Project requirement as follows:

- FM goods handling and distribution;
- Structural engineering solutions;
- Building services engineering solutions;
- Servicing strategies and space allocations; and
- Hard FM solutions and space allocations.

This constitutes the 'Indicative Elements of the Reference Design'.

Such information is issued to the Bidders for "information only" so that they may understand the intent of the Reference Design. Bidders must however refer to the Board's Construction Requirements for the detailed requirements for all such Indicative Elements of the Reference Design for which they will ultimately carry the risk. Bidders are advised that the Board's Construction Requirements will always take precedence over the Reference Design for matters which do not define Operational Functionality. The full distinction between Mandatory Reference Design Requirements and Indicative Elements of the Reference Design are set out in Appendix E (Reference Design Elements)."

9.6.7 Mechanical and Electrical/Building Services Engineering solutions is not included in Appendix E as a mandatory element of the reference design. The Environmental Matrix, which contains specifications for the ventilation system amongst other things, is also not included. However, the Environmental Matrix is referred to in the Board's Construction Requirements.

Section 8 of the Board's Construction Requirements stated: *"Project Co shall provide the Works to comply with the Environmental Matrix*

9.6.8 Section 2.8 of the ITPD volume 1 addresses Building Research Establishment Environment Assessment (BREEAM):

"Bidder's designs must achieve, as minimum, a 'Very Good' BREEAM

rating in line with the requirements for healthcare facilities as set out in the BREEAM Scheme Document for New Construction (SD5073) 2011. The designs must also achieve a minimum of 6 credits ("Excellent" rating) in accordance with the BREEAM Scheme Document for New Construction (SD5073) Section 6.0 ENE1."

9.6.9 Section 2.9 of the ITPD Volume 1 addresses Sustainable Design and Quality:

"Bidders are required to promote sustainable development by demonstrating an integrated approach to the social, environmental and economic well-being of the area served, now and for future generations. The Facilities will reflect the objectives of any local agenda strategy supported by the CEC and also satisfy the requirements of all health and social care guidance notes, as set out in Board's Construction Requirements associated with sustainability and environmental performance."

9.6.10 Information relating specifically to ventilation requirements is set out in 'Appendix A (ii) – Submission Requirements', under section C (Approach to Design and Construction). Appendix A states that "The technical submission requirements submitted by the Bidders in response to section C (Approach to Design and Construction) below will ultimately form part of Project Co's Proposals in accordance with the NPD Project Agreement." Relevant sections are reproduced in the table below.

Table: Summary of submission requirements relating to ventilation in Appendix A (ii) – Submission Requirements, ITPD Volume 1.

Quality Evaluation Criteria & Reference	**Quality Evaluation Basis**	**Quality Evaluation Criteria Weighting**	**Submission Requirement reference and submission requirement**
C8. Clarity, robustness and quality of M&E engineering design proposals	Scored	1.06	C8.2 Bidders must submit proposals setting out how their design will be developed to include the following: … iii. How temperature, ventilation and comfort for occupants will be maintained in accordance with the minimum criteria and how, if possible, these criteria will be improved; iv. How the quality of the environment and prevention of sick building syndrome shall be ensured; vi. How sustainability has been incorporated into their design, including details of the maintenance and operation philosophy for all mechanical and electrical equipment; The following information should be also be provided to help demonstrate the design proposals noted above, including: x. An environmental conditions / room provisions matrix for both mechanical and electrical services for each room in the Facilities; …

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement reference and submission requirement
			C8.3 Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis.
C10. Clarity, robustness and quality of energy management proposals	Scored	1.85	C10.1 Bidders must submit proposals setting out their approach to energy management. This should be provided as set out in C10.1 and C10.2 below. Bidders must submit an energy model, complete with supporting information, demonstrating how their design solution will achieve an optimum level of energy and utility conservation (linked with the requirement for a sustainable development in C4) and show that their design fulfils the following: … iv. The inclusion of passive design strategies for ventilation and thermal control. The environmental control system is to be co-ordinated and integrated with the design of the structure and the occupied areas in order to maximise the control and flexibility of the installations.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement reference and submission requirement
			In addition Bidders must submit an analysis of their design solution which demonstrates energy consumption proposals along with cost estimates of specific measures or innovations to be introduced C10.2 For information purposes only in addition to the model referred to above a dynamic thermal energy model is to be submitted which should comply with the parameters set out in Appendix F of the ITPD Volume 1.

9.6.11 Appendix A also set out the requirement and scoring approach for C21 'Compliance with Board's Construction Requirements'. This was assessed through a pass or fail mark. The submission requirement was that:

> "Bidders must confirm their compliance with the Board's Construction Requirements. If as their design has been developed there are specific areas of the Board's Construction Requirements that Bidders would seek to change, these shall be scheduled and provided in support of the statement. The Board shall not be required to accept any proposed amendments".

9.6.12 The amendments referred to above were to be summarised in their submission response to C30: 'Acceptable list of summary assumptions, clarifications and derogations.' This was not scored.

9.6.13 According to Appendix A, bidders were "permitted to submit its responses in a format…which they consider most appropriate to best demonstrate an understanding of the Board's requirements and/or a solution which complies with the Board's requirements. However, as a minimum, the Board would

require all design deliverables set out in AP1.1 and AP1.2 to be submitted as part of the Submission Requirements for C (Approach to Design and Construction)".

9.6.14 Appendix AP1.1 contains further design deliverables in respect of ventilation for the RHCYP/DCN:

3. Approach to Design & Construction - Interior Design Proposals

3.2 - Loaded 1:50 room layout drawings for the RHSC indicating interior design proposals and demonstrating the coordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services.

5. Mechanical & Electrical Services

5.7 - 1:200 internal services concept schematic and zoning plans for both heating and ventilation; indicating of heating and ventilation in each room

5.9 - Mechanical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed:

5.9.6 - Natural Ventilation strategy

5.9.7 - Mechanical Ventilation strategy

5.9.10 - Specialist ventilation strategy

5.12 - 1:50 mechanical and electrical services sections to illustrate use of ceilings, natural daylight, ventilation strategies, cooling and heating strategies, lighting strategy, acoustic strategy, specialist installations strategy, services concept

7. Environmental Services and Energy Management Strategy

7.1 – Natural Ventilation drawings and proposals

9.6.15 Appendix F – Thermal and Energy Model Parameters states:

> "Project Co shall undertake Dynamic Thermal Energy Modelling to assess the energy performance and thermal performance of Project Co's Proposals.
>
> The thermal performance of the Facilities shall be dynamically thermally modelled to the Project specific parameters, identified within Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters). Thermal modelling shall inform the sizing of all heating, ventilation and comfort cooling requirements for Project Co's Proposals, inclusive of all natural ventilation pathway and overheating analysis. In conjunction with energy performance, CO2 emissions shall also be required to be equal to, or better than, the agreed Carbon Emissions requirements in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters). The following documentation shall be used in providing the targeted thermal energy modelling requirements for the building;
>
> - Scottish Health Technical Memorandums
> - EnCO2de
> - Health Building Notes
> - CIBSE Design Guides
> - Building Regulations (Scotland) Technical Standards"

9.7 **Volume 2**

9.7.1 Volume 2 of the ITPD is the NPD Project Agreement for the Project. It was based upon SFT's standard form contract.

9.7.2 The NPD Project Agreement included project specific amendments, which had been pre-agreed by the Board of NHSL and SFT. Bidders were encouraged to accept positions within the NPD Project Agreement, which

> reflected SFT's standard form project agreement. However, bidders were also encouraged to raise any comments in relation to the project specific amendments by dialogue meeting 3, in order that these issues could be flagged to SFT at that time. Any proposed bidder amendment to the NPD

Project Agreement would be a derogation. All derogations required the approval of SFT.

9.7.3 In general, all matters in relation to the NPD Project Agreement were to be raised with NHSL prior to close of dialogue. Only matters in relation to fine tuning and clarification would be permitted post-close of competitive dialogue.

9.7.4 Volume 2 of the ITPD defines 'Board's Construction Requirements' as meaning "the requirements of the Board set out or identified in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters) as amended from time to time in accordance with the terms of this Agreement". The Board's Construction Requirements were initially provided to bidders as Volume 3 of the ITPD.

Clause 5.2.4 of the draft Project Agreement provided as Volume 2 of the ITPD stated: "Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…except to the extent expressly stated to the contrary in the Board's Construction Requirements or the Service Level Specification, in compliance with all applicable NHS Requirements". NHS Requirements was defined as follows: "means: (a) in relation to the Works, Health Building Notes and Health Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements

9.7.5 The Project Agreement provided as Volume 2 of the ITPD included Section 5 (Reviewable Design Data) of Schedule Part 6 (Construction Matters) which explains the concept of reviewable design data:

> "This Section 5 (Reviewable Design Data) of Schedule Part 6 (Construction Matters) sets out the details of the specific design information, materials, samples and required approvals (as more specifically set out in the table below) ("Reviewable Design Data") to be reviewed by the Board in accordance with Schedule Part 8 (Review Procedure) before such Reviewable Design Data is incorporated into the

Facilities and/or the Site by Project Co.

For the avoidance of doubt, if Project Co's Proposals incorporate Room Data Sheets and/or Reviewable Design Data there shall be no requirement for Project Co's Proposals to be issued to the Board for review under Schedule Part 8 (Review Procedure). However, if Project Co subsequently revises or amends its Project Co's Proposals in relation to the Room Data Sheets and/or Reviewable Design Data, then such revisals or amendments shall require to be issued to the Board for review under Schedule Part 8 (Review Procedure)."

9.7.6 Section 5 provides a table of Reviewable Design Data. The environmental matrix is not included in the table. However, Room Data Sheets are included. The Inquiry Team understands that this approach was adopted because room data sheets should have been completed for every room in the hospital by financial close. Therefore, the Environmental Matrix should have become obsolete as a briefing and design tool.

9.8 **Volume 3**

9.8.1 Volume 3 of the ITPD consists of Schedule Part 6 (Construction Matters), Section 3, of the NPD Project Agreement. It set out the Board's Construction Requirements. Sub-Section C set out the General Requirements and Sub-Section D the Specific Clinical Requirements.

9.8.2 Paragraph 2 of Sub-Section C set out the Project Wide Requirements, which included:

2.1 Approach to Design

2.2 General Requirements of the Board

2.3 NHS Requirements

2.4 Minimum Design and Construction Standards

2.5 Hierarchy of Standards

9.8.3 Section 2.1, "Approach to Design" states that:

"The new building will follow the design aspirations and guidance laid out in the Policy on Design Quality for NHS Scotland (2010) to which the Board subscribes and implements through its Design Champion.… The Design Champion for the project is the NHS Lothian's Project Sponsor, supported by the Director of Capital Planning and Projects, and the design process is managed by the reprovision project team."

9.8.4 Section 2.2 'General Requirements of the Board', states that "Project Co shall ensure the Facilities comply with the following general requirements of the Board". The list of requirements that follow include:

"Adherence to the requirements set out in CEL 19 (2010) "A Policy for Design Quality for NHSScotland, 2010 Revision published by the Scottish Government."

9.8.5 CEL 19 (2010) is addressed in detail the Reference Design and Environmental Matrix PPPs. It required NHSScotland bodies to utilise the ADB system for briefing, design and commissioning of new hospitals. If a different tool was to be adopted, the onus was placed on the NHS body to demonstrate that it was of equal value.

9.8.6 Paragraph 2.3 'NHS Requirements':

"In addition to the standards listed in paragraph 2.4 of this Sub-Section C, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time."

9.8.7 Included in the list of guidance that follows is

"…

b) New Policy on Design Quality for NHS Scotland published by SGHSCD;

…

h) HTM and SHTM…

…Health Technical Memoranda & Scottish Health Technical Memoranda (HTM & SHTM)

Project Co shall, in relation to all SHTM and all HTM (except HTM where an SHTM exists with the same number and covering the same subject matter): take fully into account the guidance and advice included within such SHTM and HTM; ensure that the Facilities comply with the requirements of such SHTM and HTM; and adopt as mandatory all recommendations and preferred solutions contained in such SHTM and HTM."

9.8.8 Paragraph 2.5 sets out the 'Hierarchy of Standards'. It states that:

"…Where contradictory standards/advice are apparent within the terms of this Section 3 of Schedule Part 6 (Construction Matters) and the Appendices then subject to the foregoing paragraph then (1) the most onerous standard / advice shall take precedence and (2) the most recent standard / advice shall take precedence. When the more onerous requirement is to be used the Board will have the right to decide what constitutes the more onerous requirement.

Where there is a conflict of interest resulting from the use of the standards /advice Project Co shall involve the Board in the decision making process. The Board shall be entitled to make the final decision regarding the standards / advice to be used for the Facilities including any contradictions that may arise between items (1) and (2) above…

…In certain instances, NHS publications include a number of options or alternative solutions. Where the Board has defined their preference specifically, Project Co shall adopt these preferences as a mandatory requirement. Where no Board preference is stated, Project Co shall engage the Board in the design development process to seek and incorporate the Board's preference within the Facilities."

9.8.9 Paragraph 3 sets out the General Design Requirements and includes the following instructions regarding Room Data Sheets.

> "Paragraph 3.6.3 Room Data Sheets
>
> Project Co shall provide Facilities that, as a minimum, meet all the requirements specified in the Room Data Sheets included in this Schedule Part 6 Section 6. Room Data Sheets not included in Schedule Part 6 Section 6 shall be provided through RDD.
>
> Project Co shall provide fully developed Room Data Sheets submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement.
>
> As part of the commissioning process, Project Co shall be responsible for demonstrating compliance with the requirements included within the Room Data Sheets.
>
> For the avoidance of doubt, Project Co shall provide mechanical ventilation, comfort cooling and air conditioning to suit the functional requirements of each of the rooms in the Facilities. Irrespective of the ventilation requirements in Room Data Sheets, where rooms are clearly intended to be occupied and/or become internal spaces during design development and natural ventilation is not possible, mechanical ventilation and/or extract ventilation shall be provided as appropriate to suit the function of the space."

9.8.10 Paragraph 5 set out the General Construction Requirements. Paragraph 5.2 'Infection Prevention & Control' states:

> "Project Co shall ensure all aspects of the Facilities allow for the control and management of any outbreak and/or spread of infectious diseases in accordance with the following:
>
> f) Ventilation in Healthcare Premises (SHTM 03-01);"

9.8.11 Paragraph 5.3 'Thermal Requirements' states:

"Project Co shall ensure the buildings' envelopes complies with Section 6 of 2011 Non-domestic Technical Handbook to The Building (Scotland) Amendment Regulations 2010 and the following criteria:

c) The building fabric shall include passive design measures to limit summer temperatures to figures given within the Environmental Matrix;"

9.8.12 Paragraph 5.25.1 'BREEAM' states:

"Project Co shall ensure that the Facilities achieve as a minimum a 'Very Good' rating when assessed against BREEAM 2011 New Construction (SD5073). Under the BREEAM 2011 New Construction (SD5073) there are now mandatory requirements specifically under energy, CO2 emissions, water and ecology. In addition, BREEAM embraces energy efficiency and passive design strategies for ventilation and thermal control to enhance internal comfort. The Facilities shall therefore also meet a BREEAM ENE1 target of 6 credits (excellent) in accordance with the BREEAM Scheme Document for New Construction (SD5073) Section 6.ENE1"

9.8.13 Paragraph 5.26 'Energy Strategy' states:

"Project Co shall provide Facilities that achieve an optimum level of energy and utility conservation. Project Co shall:

a) Minimise internal areas requiring mechanical ventilation;"

9.8.14 Paragraph 8 set out the 'Mechanical & Electrical Engineering Requirements':

"Project Co shall provide the Works to comply with the Environmental Matrix.

Project Co shall in carrying out the Works comply with the following non-exhaustive list of mechanical & electrical requirements.

…

Project Co shall take cognisance of all the building services implications of the requirements described in the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

For the avoidance of doubt the hierarchy of standards and advice detailed in paragraph 2.5 shall apply to this paragraph 8."

9.8.15 Paragraph 8.1 lists the 'Minimum Engineering Standards' including "a non exhaustive list of SHTM's, HBN's and HTM's applicable to the Facilities" which includes:

"…

h) SHTM 03-01: Ventilation in Healthcare Premises;"

9.8.16 Paragraph 8.2 'Infection Control' states:

"Mechanical and Electrical equipment selections and designs shall take cognisance of HAI-SCRIBE in its entirety."

9.8.17 Paragraph 8.5.2 'Thermal Comfort' states:

"Where maximum internal summer time temperature calculations indicate that the internal temperature will exceed those limits set out in the Environmental Matrix, Project Co shall provide means of reducing the temperature rise.

Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of any room or area does not exceed the maximum acceptable level of 25°C for more than 50 hours per annum.

For any room or area that does not meet this criterion, there should be a hierarchy of remedial action to prevent the high temperature by passive means as a priority, adopting a suitable means of comfort cooling as a last resort."

9.8.18 Section 8.5.3 'Air Quality' states:

"…

i. Internal

…Particular attention shall be given to the risk of cross infection within the hospital / healthcare environment and shall be such as to minimise the spread of infection. Project Co shall demonstrate through submission of information to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and clause 12.6 of the Project Agreement, how the proposals facilitate the control and management of an outbreak and spread of infectious diseases, and in particular shall comply with the requirements of SHTM 03-01 (Ventilation in Healthcare Premises). In order to reduce cross-contamination, the design of the Facilities shall incorporate 100% fresh air supply systems only.

Project Co's demonstration referred to above is to cover all aspects of the building, its services, spatial relationships, soft and hard FM proposals and incorporate requirements of the Board's Infection Control Team.

Project Co shall provide natural ventilation wherever possible, except where:…

d) Where inflows of air are undesirable;

e) Clinical requirements, as detailed in the Room Data Sheets, do not allow in areas such as isolation rooms, where positive or negative pressure are required; and

f) Areas which are air-conditioned."

9.8.19 Section 8.7.8 'Mechanical Ventilation & Air Conditioning':

"…The need to maintain comfort conditions in accordance with the Room Data Sheets in all areas but particularly in clinical areas is of paramount importance and Project Co shall develop strategies for achieving these conditions together with minimum energy consumption.

Project Co shall provide natural and mechanical ventilation, comfort

cooling, and air conditioning to suit the Facilities and clinical requirements and provision of the Clinical Services…

…Project Co shall demonstrate how the proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with SHTM 03-01, SHFN 30 and HAI-SCRIBE..."

9.8.20 Paragraph 8.7.22, 'Ventilation and Air Conditioning of Isolation Rooms' states:

"Project Co shall provide air conditioning systems to Isolation Rooms to support the Board's Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements), NHS Standard Infection Control Precautions (SICPs) and maintaining strict positive / negative pressure differentials.

Ventilation and air conditioning systems for these rooms shall be designed and installed in accordance with SHTM 03-01, 04-01 and NHS Model Engineering Specification C04. Project Co shall demonstrate how the proposals facilitate the control and management of an outbreak and spread of infectious diseases."

9.8.21 No similar instructions are provided for the Critical Care Department.

9.8.22 Part 6 Section 3: The Boards Construction Requirements, Sub-Section D: Specific Clinical Requirements states:

"This Schedule Part 6 Section 3 Sub-Section D forms the Specific Clinical Requirements included in the Board's Construction Requirements Specification. Project Co shall satisfy all the requirements under this Sub-Section D.

It contains design philosophy and specific requirements for each of the clinical services to be provided from the Facilities."

9.8.23 The clinical requirements for the Critical Care department were set out in the Clinical Output Specification for Critical Care. This states:

- "Flexibility in the use of the Critical Care beds for both High Dependency and Intensive Care is key to maintaining efficient use of high specification beds. All three critical care areas must be co-located
- Single cubicles will be used for privacy or isolating ordinary infectious conditions
- Lobbied single bed isolation cubicles are required for both source and protective isolation of patients and they all require to have identical design of pressure control with positive pressure lobbies with filtered air, and negative extraction cubicles. It is required that Contaminated air must not flow back into any of the open Critical Care areas. It is required that the lobby must be joined to the room at the foot end of the bed.
- All PICU and HDU bed spaces are required to be of the same specification to allow greatest flexibility of use."

9.8.24 Appendix C contained the environmental matrix. This is addressed in detail in a separate PPP.

Volume 4

Volume 4 of the ITPD included the Reference Design and design documents produced by Hulley and Kirkwood. This included:

M&E Reference Design Approach Document. Paragraph 1.1.2 is titled *"Energy Considerations"* and states: "*the design solution shall comply with the 2010 version of Section 6 of the Building Regulations Scotland".* Paragraph 1.1.3 is titled "*Environment"* and states: *"The Building Services shall be integrated with the building design to provide a design solution which will provide an environment to support the well being of staff, visitors and patients. Key components of the design solution:… Openable windows (even where mechanical ventilation is provided) but only where function permits."*

Thermal Comfort Analysis Document. Paragraph 1.0 states: *"The profiles in Simulations 1 & 2 show that the internal temperatures in ward rooms can be maintained at comfortable levels with 4 ACH (air changes per hour) of*

cooled fresh air supply mechanical ventilation and could be controlled in summertime between 22C and 25C maximum."

Section 6 SBEM Compliance Report, paragraph 4.0 states: *"A Simplified Building Energy Model (SBEM) calculation has been carried out for the Reference Design Stage Royal Hospital for Sick Children / Department for Clinical Neuroscience building using the envisaged approach… by incorporating the following passive and active LZCGT measures the RHSC/DCN building can meet the CO2 emission reduction requirements set out in Section 6 Energy of the 2010 Scottish Building Regulations…. Ventilation solutions as aligned to the RHSC-DCN Environmental Matrix"*

10. Key Stage Review 2a: Pre-ITPD

10.1 The Pre-ITPD KSR was finalised on 7 March 2013. Question 4 of the KSR under section 2 "Project Requirements" stated:

> "Please explain the approach that the Procuring Authority is taking in presenting its design and specification requirements to bidders (e.g., use of exemplar or reference designs) and the opportunities available for bidders to propose alternative or innovative solutions. Please demonstrate that this approach is consistent with (i) allowing opportunity for improved value for money through bidder innovation (ii) allowing scope for value engineering required to deliver the project within the affordability limits (iii) the procurement timetable and (iv) bidder access to project stakeholders during the procurement."

10.2 The answer provided was:

> "The ITPD, Volume 1 section 2.5 and Appendix E sets out the elements of the Reference Design which is being provided to bidders are mandatory. These relate to the Operational Functionality as defined in the Project Agreement and there are elements of flexibility in relation to non-mandatory elements of the Reference Design."

10.3 There was no explanation, or analysis, in the KSR of the purpose of the

environmental matrix.

11. Competitive Dialogue

11.1 The ITPD was issued by NHSL to all three bidders on 12 March 2013. This marked the start of Competitive Dialogue.

11.2 Paragraph 5.15 of the SCIM NPD Guide: OJEU to Contract Award states that the aim of Competitive Dialogue:

> "is to 'identify and define the means best suited of satisfying [the contracting authority's] needs.' This stage formally acknowledges the need in complex projects to talk around solutions, develop ideas and explore options as part of the tender process…It should therefore continue until the contracting body is satisfied that it has identified the solution or solutions capable of meeting its needs and requirements with sufficient precision to enable Final Tenders (which fully meet these requirements) to be submitted."

11.3 NHSL's Core Evaluation Team were involved in Competitive Dialogue, assisted by technical, legal, financial and cost advisors. NHSL did not have an external healthcare planner to advise them during the Competitive Dialogue process.

11.4 The Reference Design Team who had produced the reference design and associated documents were not retained by NHSL during the procurement period to allow members to join bidding teams during the procurement stage. According to the August 2012 version of MM's "Approach to Reference Design" paper:

> "The Reference Design will therefore have to be handed over to the Technical Advisory team and actions will have to be taken to cover for the fact that the Reference Design team will not be available to address queries during the procurement process.
>
> In terms of the handover and sign-off of the Reference Design, the following matters will have to be addressed:
>
> - Is the Reference Design fully aligned with the requirements of the

Clinical Output specifications;

- Has NHSL taken ownership of the Reference Design on the basis that some areas of the design will be a compromise between the requirements and what can be achieved through design;
- Is the Reference Design fully aligned with the Board's Construction Requirements – architectural, engineering and Soft FM requirements;
- The Technical Advisory team during procurement must be in a position to fully understand the development of the Reference Design from a technical point of view. The Team will need to take ownership of the design as if it was its own work."

11.5 In November 2012, the PSB agreed to adopt a compressed programme for competitive dialogue. The competitive dialogue period was reduced from 209 days to 155 days.

11.6 The ITPD sets out the process for Competitive Dialogue in paragraph 4. It was envisaged that the dialogue process would comprise a series of meetings leading to submission of the Final Tender, and that dialogue would be continued until NHSL was satisfied that solutions from one or more Bidders were capable of meeting NHSL's requirements. Bidders were expected to provide informal submissions in advance of dialogue meetings, and a draft final tender before being invited to submit final tenders at the Close of Dialogue.

11.7 Informal submissions would not be evaluated but feedback on these submissions would be given to Bidders at each stage of the Dialogue and would inform the basis for the remaining Dialogue. The ITPD noted that objective of Dialogue "…is to ensure Bidders are clear on the Board's requirements and allow each Bidder to develop a Solution that is capable of meeting the requirements set out in the ITPD."

11.8 The ITPD provided the following timetable of dialogue meetings.

Activity	Week	Bidder A	Bidder B	Bidder C
Dialogue Opens				
Issue ITPD	0	12/03/13		
Briefing Meeting \ Q and A Sessions	1	Tue 19/03/13	Wed 20/03/13	Thu 21/03/13
Informal Submission 1	2	Mon 25/03/13	Tue 26/03/13	Wed 27/03/13
Dialogue Meeting 1	3	Tue 02/04/13	Wed 03/04/13	Thu 04/04/13
Informal Submission 2	6	Mon 22/04/13	Tue 23/04/13	Wed 24/04/13
Dialogue Meeting 2	7	Tue 30/04/13	Wed 01/05/13	Thu 02/05/13
Informal Submission 3	10	Mon 20/05/13	Tue 21/05/13	Wed 22/05/13
Dialogue Meeting 3	11	Tue 28/05/13	Wed 29/05/13	Thu 30/05/13
Informal Submission 4	14	Mon 17/06/13	Tue 18/06/13	Wed 19/06/13
Dialogue Meeting 4	15	Tue 25/06/13	Wed 26/06/13	Thu 27/06/13
Informal Submission	18	Mon 15/07/13	Tue 16/07/13	Wed 17/07/13
Dialogue Meeting 5	19	Tue 23/07/13	Wed 24/07/13	Thu 25/07/13
Draft Final Tender Submission	24	26/08/13		
Dialogue Meeting 6	28	Tue 24/09/13	Wed 25/09/13	Thu 26/09/13
Dialogue Closes				
Invitation to Submit for Final Tenders	30	11/10/13		
Submission of Final Tenders	35	11/11/13		

11.9 The expected format and requirements for these meetings were set out in the ITPD as follows:

"4.2.2 Each monthly Dialogue Meeting (Dialogue Meetings 1-6) shall involve the Board spending time with each Bidder. The format of such monthly meetings shall be:

(a) Initial meeting between the Board's full Core Evaluation Team and Bidder's team;

(b) The initial meeting shall (if required) break out into a series of sub-meetings concentrating on legal, technical and financial aspects of Bidder's proposals;

(c) The sub-meetings shall re-convene for a final wrap up meeting with the Board's full Core Evaluation Team and Bidder's team.

4.2.3 In advance of each Dialogue Meeting, Bidders are invited to submit specific material related to the agenda topics to be discussed (Informal

Submissions) as more fully set out in paragraph 4.5.3. These Informal Submissions by Bidders prior to the Dialogue Meetings shall enable the Board and its advisers to:

(a) review the work undertaken by Bidders since the previous Dialogue Meeting;

(b) provide any meaningful and relevant comments to the Bidders; and

(c) avoid any time disconnect between the Board's comments and the development of Bidders' Solutions

4.5.3 The proposed agenda topics and submission requirements for each Dialogue Meeting are set out in the following appendices to Volume 1 of the ITPD:

(a) Appendix A (i) (Technical Agenda Topics and Informal Submission Requirements) and (ii) (Submission Requirements);

(b) Appendix B (i) (Financial Agenda Topics and Submission Requirements); and

(c) Appendix C (i) (Legal Agenda Topics) and (ii) Submission Requirements and Evaluation).

4.5.4 With each technical submission, Bidders are also required to provide a completed Annex 2 to Appendix A (ii) – 'Schedule of Design Deliverables for Technical Meetings during Dialogue Period' confirming the supporting drawings and information that Bidders are providing to support the Submission Requirements of the ITPD. Bidders should note that all drawings must be submitted at least once before submission of the Draft Final Tender."

11.10 An initial briefing meeting was held with all the bidders to introduce the team and provide an overview of the project, including 'in particular the detail and importance of the Reference Design and the demarcation between Mandatory Reference Design Requirements and Indicative Elements of the Reference Design."

11.11 The initial briefing meeting with bidder B (IHSL) was held on 20 March 2013. It was attended by Susan Goldsmith, Project Sponsor, the NHSL Core Evaluation Team and Advisers, and 15 members of the bid team.

11.12 On 8 April 2013 NHSL issued an update to prospective tenderers entitled "Reference Design - an update on requirements for Operational Functionality". According to this update, "the Board have agreed to relax the requirements in relation to a limited number of departments whose location within the RHSC and DCN is less critical." This did not relate to Critical Care or neutropenic patient wards. The ITPD was revised to reflect these changes.

11.13 On 22 April 2013, IHSL submitted its informal submission for Dialogue meeting 2 which addressed C8, 'M&E engineering design proposals', C9 'Lighting' and C10 "Energy Management Proposals". The submission contains the following statements:

> "At this stage we have reviewed the Reference Design and Plant and Services Strategies of the Exemplar Design…we think it is fair to say that the Reference Design appears to ourselves to provide economic, practical and energy efficient solutions and we don't expect the final solutions to be dramatically different.
>
> 'Design Control and Operational Philosophy:
>
> The designs will be undertaken in house utilising computer based modelling, calculation and drawing packages... These outline designs will be subject to ongoing review for compliance with SHTM's, HTM's etc and sustainability and BREEAM targets.'
>
> 'Sustainability:
>
> Designs will be fully compliant with current legislation and NHS Targets the aim being to meet and exceed where possible.
>
> We are currently holding separate BREEAM and Sustainability reviews with the Team and will advise on progress…
>
> …We are therefore looking closely at materials and passive measures to

reduce energy base loads as a parallel exercise with the Architects.'

'C8.3 Environmental Matrix:

No changes proposed at this time nor envisaged in the future but we will continue to review and advise back'

'C10. 1 Energy Management, iv. Passive Design Measures:

Natural ventilation being developed in line with Reference Design and viewed as achievable further thermal performance of building being reviewed with Thermodynamic Model. Will form part of Final Solution with detailed Thermal and Energy Performance Data taken from Thermodynamic Modelling exercise.'"

11.14 Dialogue meeting 2 for bidder B (IHSL) took place on 1 May 2013. Colin Macrae from MM led on responses regarding M&E within the Design and Construction Breakout group.

11.15 The action notes from the meeting do not reflect any detailed discussion regarding ventilation strategy, for example for passive design (using natural ventilation where possible), or consideration of the environmental matrix. Compliance was discussed, with the following action note recorded:

2.1.4 Where the Operational Functionality is compromised by virtue of compliance with the Board's requirements as set out in paragraph 5.2.2 of ITPD volume 1 then IHSL shall identify the specific areas affected and provide a supporting commentary. Any such changes will require discussion with an agreement by the Board. NHSL will issue a clarification to all Bidders.

NHSL are still reviewing our position on compliance (in respect of your informal submission 2 D&C proposals) and will issue a bulletin in the week commencing 06/05/13.

11.16 Another Bidder, 'Bidder C' (Mosaic) provided a narrative to explain their ventilation strategy which would 'result in a lower air flow than the 6 air changes/hour specified in SHTM 03 where mechanical ventilation is utilised'. Bidder C also described instances where they would move away from the

reference design (environmental matrix), including 'where it is non-compliant with relevant design guidance'. Their submission on C8 and C10, for Dialogue Meeting 2, dated 24 April 2013, contained the following statement:

> "Only move away from the Reference Design where we see real benefit to NHS Lothian in terms of: reduced energy usage; better system resiliency; ease of operation; improved maintenance; or where it is non-compliant with relevant design guidance
>
> …
>
> Natural ventilation facility to be provided where possible to allow a low energy solution within a sustainable design…
>
> …Ventilation can be provided by natural infiltration of outside air via opening windows or other openings or mechanical i.e. fan assisted ventilation. Both natural and mechanical ventilation are appropriate in particular circumstances however where a specific clinical need applies mechanical ventilation will be provided in accordance with SHTM guidance.
>
> …
>
> The selection of 25°C as the maximum temperature for bedrooms determines that mechanical ventilation and cooling will be the likely solution as simulations have shown that this level of temperature control is not achievable using natural ventilation.
>
> Having established the need for mechanical control of room temperature the ventilation & cooling strategy must be defined…
>
> …The use of terminal cooling devices such as chilled beams are widely accepted as an effective, energy efficient method of cooling which is acceptable in patient bedrooms. In order to maximise energy efficiency the air flow rate should be based on the calculated flow to suit occupancy and provide the required cooling. This will generally result in a lower air flow than the 6 air changes/hour specified in SHTM 03 where mechanical ventilation is utilised.
>
> We would like to explore the acceptability of the above strategy with the

Health Board and also review the specialist ventilation strategy for clinical areas such as:

1. Operating theatres

    a. Generally as SHTM

    b. The use of “skirt-less” canopies in UCV theatres

    c. The use of single plant for a pair of theatres

2. Isolation rooms

    a. A common supply system is proposed in the reference design with design as HBN4 supplement 1

    b. Application of isolation room guidance to Critical Care single rooms

3 Imaging rooms, in particular;

    a. Intra operative MR scanner suite

    b. Interventional imaging”

11.17 Bidder C’s informal submission also included a presentation for Dialogue Meeting 2. The following points were made regarding building services and energy:

“• Aim for minimum fresh air, rather than 6 air changes/hour for in-patient bedrooms

• Include for natural ventilation wherever possible

• Utilise Mechanical vent with chilled beams

• treat critical and non-critical spaces differently"

11.18 Feedback notes regarding Bidder C’s submission on M&E, prepared for Dialogue Meeting 2, include:

“Any suggestions/proposals will be considered if they help achieve sustainability target.

Clarify our attitude to reference design."

11.19 Dialogue meeting 2 for Bidder C took place on 2 May 2013. The action notes do not reflect detailed discussion regarding the ventilation strategy. However, revised action notes included within Bidder C's informal submission for Dialogue Meeting 3 included the following addition in track changes, "[bidder C was] proposing a reduction from 6AC/Hr to 4 AC/hr as set out in the reference design."

11.20 On 9 May 2013 NHSL issued a bulletin to all bidders offering clarification of operational functionality. This bulletin states:

> "The Board will consider, and may accept, changes to the Mandatory Reference Design Requirements (i.e. those elements relating to Operational Functionality) where a Bidder considers that those Mandatory Reference Design Requirements are not capable of meeting the Board's requirements (as described in paragraph 5.2.2 of Volume 1 of the ITPD)."

11.21 The bulletin also provides a reminder of the definition of operational functionality set out in the ITPD. (See the previous section of this paper on the content of the ITPD).

11.22 At the meeting of the PSB on 31 May 2013, Brian Currie (NHSL) noted that the Core Evaluation Team were comfortable that all bidders would proceed to submit draft final tenders in late August, but that bidders had fed back that the programme was challenging to meet. Brian Currie also noted that bidders were "only now submitting 1:200 departmental layouts…for which Bidders were expected to provide a robust rationale for any changes to the Reference Design." This related to changes in adjacencies and layouts.

11.23 IHSL provided an update on M&E engineering design proposals, for Dialogue Meeting 3, on 29 May 2013. With regard to 'C8.3 Environmental Matrix' IHSL stated:

> "No changes proposed at this time nor envisaged in the future but we will

continue to review and advise back (as previous).

Additional floor plans layouts developed to demonstrate Heating/Cooling/ Ventilation Strategies."

11.24 The floor plan layouts for ventilation strategy were high level and showed that a number of rooms in Critical Care were 'HBN4 dependent', some would receive central air supply and some central supply and extract. Exact air change rates, pressure regimes and descriptions of the room function were not provided.

11.25 The update on 'C10 Energy Management' included an update on progress with Environmental Modelling:

"Experiences from the adjacent ERI prove ward

conditions are not acceptable when reliant on natural

ventilation alone – maximum allowable internal

temperature 25C."

Single Bedroom Ward, South Facing Exposed (Summer)

Mixed Mode Ventilation

- Opening windows – restricted opening to 100mm.
- Supply air provided if the room air temperature is great than 25oC.
- External air 4 ACH cooled to 18oC
- No reliance on uncontrolled infiltration for cooling."

11.26 The Action Notes from Dialogue meeting 3 record that:

"IHS Lothian provided an update on their Environmental Matrix and Energy Model. Further details to be provided for the next dialogue meeting."

11.27 The Action notes for Bidder C's Dialogue meeting 3, held of 30 May 2013, do not record any discussion of ventilation strategy or the environmental matrix.

11.28 IHSL's Dialogue meeting 4 took place on 26 June 2013. In their informal submission for this meeting no mention is made of ventilation strategy or the environmental matrix. In their update on design development, IHSL referred to the use of ADB with regard to agreeing equipment proposals and signing off room layouts. Their submission arrived after the deadline and it was noted in the notes for the Chair for Dialogue meeting 4 that "NHSL will respond to these submissions today, but you should be aware that late submissions cannot receive the same attention as those of other bidders that arrive on time."

11.29 The Action notes for Dialogue meeting 4 with Bidder B (IHSL) do not show any discussion of ventilation strategy, the environmental matrix or use of ADB. There was discussion regarding instances where NHSL's requirements cannot be delivered as a result of a specific Mandatory Reference Design Requirement:

> "IHS Lothian to provide the schedule in word format which identifies the department, room, perceived non compliance in the Reference Design, proposed solution and the requirement with which it now complies and with the following additional columns – a 'comments' column and a 'yes/ no' column in order that NHSL can add commentary."

11.30 IHSL submitted a document titled 'Compliance with Mandatory Reference Design – B1', dated 27 June 2013. This document shows differences between the Reference Design and IHSL's design of the Critical Care (PICU/HDU) department. Under the sub-heading 'variances' it is noted that "The non-compliances with the requirements of the operational policy are the same as the reference design." The summary of IHSL's "proposed improvements/alterations" to the reference design included:

> "Improved connectivity and flexibility

We have improved the flexibility of the high and low acuity bed areas of the HDU by standardising the multi bed bays and single rooms This enables the provision of the same level of equipment in each room, enabling the boundary between the sub departments to flex as demands on the service vary.

It also provides the potential for the department to become all single bedrooms if future service demands change (as has happened in other departments to accommodate the infection control…"

11.31 On 10 July 2014 the Project Steering Board approved the prolongation of competitive dialogue by 8 weeks in order to promote design compliance. The minutes noted:

"[Brian Currie] proposed that an 8 week prolongation of the competitive dialogue phase was introduced to facilitate design compliance across all three bidders. This milestone was to be met under current programme at Dialogue Round 5 (end of July) but it has become increasingly clear in recent weeks that due to the volume and intensity of design development and review iterations required to bring the 1:200 scale drawings and minimum areas to compliance with the Board's requirements this will not be achievable.

It is the project team's firm view that the procurement process cannot progress to Draft Final Tender Stage until three design compliant bids are evidenced.

The May 2017 Operational date would remain under this proposal but anticipated Financial Close date would move back 8 weeks to early October 2014. The intention is that this proposed prolongation would be absorbed in a shortening of the construction duration.

The PSB were reminded that the project team have communicated previously growing concern of the inadequacies of the programme to deal with the level of design development necessary for a major acute health facility regardless of the availability of a 'Reference Design':

28 March 2013, 26th April 2013 and 31st May 2013 – 'Ability of Bidders to

submit meaningful design proposals within competitive dialogue programme remains to be confirmed'.

BC also confirmed that all three bidders had been asked for their view on the need for prolongation and, with varying degrees of duration, all confirmed that additional time was necessary. One bidder reluctantly agreed, when pressed, that they would be unable to comply in the time allocated given the status of their design submission to date. The PSB accepted this proposal given the maintenance of the operational date however [Mike Baxter] expressed concern that Consort may use this prolongation to further delay completion of key enabling works. SFT have also previously noted this proposal in an email communication to the Project Director following a detailed briefing session."

11.32 On 12 July 2013, bidders received a brief change from NHSL. The brief change notified bidders that NHSL had applied for a single room derogation in DCN Acute Care. Bidders were requested to design DCN Acute Care to meet the clinical output specification. Changes were also made to the Project Brief for Theatres in both the RHCYP and DCN. The brief change also involved the inclusion of the former petrol station site within the Project site boundary following its acquisition by NHSL. These changes were raised with bidders and the relevant changes were made to the Project Agreement and construction documents (practical and legal changes only).

11.33 NHSL has advised the Inquiry Team that the Brief Change had limited impact on the Competitive Dialogue process. Competitive dialogue was extended not just to accommodate the Brief change but due to the overall process taking longer than initially anticipated.

11.34 By Dialogue Meeting 4B on July 24, 2013, IHSL's 1:200 design for Critical Care had 'B status: comments to be incorporated'. 'A status' was defined as 'no comments' and 'C status', which was given at the previous meeting of 20 June, meant 'unacceptable/resubmit'. The Action notes include comments on the drawings received for PICU/HDU/Critical Care/NICU. None relate to ventilation.

11.35 IHSL's informal submission for Dialogue meeting 4C included 'M&E Engineering Design Approach' (C8). This contained similar content to previous C8 submissions and noted outline designs have been subject to ongoing review for compliance with SHTM's, HTM's, etc. IHSL stated that:

- "We have undertaken internal Peer Reviews at Concept and Proposal Stages and will carry out a final review.
- C8.3 Environmental Matrix: No changes proposed at this time nor envisaged in the future but we will continue to review and advise back".

11.36 Also included with the submission were 1:200 drawings of the ventilation strategy. The drawings for the First Floor where Department B1 (Critical Care/HDU/Neo-natal surgery) as well as P1 (Theatres) were to be located provide a legend to show which rooms would require central supply and extract ventilation, central air supply, central general extract, central dirty extract, be HBN4 Dependent (isolation room guidance), be in line with SHTM 03-01, or have natural ventilation. No rooms in Critical Care are shown to be SHTM 03-01 dependent. Isolation rooms are shown to be 'HBN4 Dependent'. Single bed cubicles and open plan bays are shown as requiring central supply air. Central air supply for rooms in Critical Care is in line with the requirements in SHTM 03-01. A number of single bed cubicles have en-suites.

11.37 On 16 August 2013 Tim Davison, Chief Executive of NHSL, sent an email to Iain Graham, Brian Currie, Susan Goldsmith, Alan Boyter, Fiona Mitchell, and Edward Doyle, regarding a meeting with consultants in which they had expressed concern 'about the capacity and design of the new hospital, the lack of a 'service strategy' and most audibly, their feeling of being disconnected from influencing what was happening.' The consultants felt disengaged from the design process. A meeting was arranged for 6 September 2013 to discuss these issues. It is not clear to the Inquiry Team how this matter was resolved.

11.38 A paper was prepared by Sorel Cosens on 10 September 2013 for the Project Steering Board meeting on 13 September 2013. According to the paper, four additional dialogue meetings had been arranged to focus 'primarily

on Bidders' compliance with operational functionality and room sizes' and the meetings were held with 'the Clinical Director, an NHSL Project Manager with detailed knowledge of the Reference Design, and our Architectural Adviser from Mott MacDonald.' The paper also notes:

"Outstanding design compliance after September will be addressed in feedback on the Draft Final Tenders; non-compliance would result in a bidder being informed that their submission would have been discounted without full evaluation had it been their Final Tender."

11.39 IHSL produced certain room data sheets dated 8 October 2013. They contain the acronym 'ADB' in the top left corner, 'Activity Database' in a banner at the bottom of each page and the Department for Health logo in the bottom corner. They contain the following information for rooms in Department B1 'PICU and HDU's':

Room name	Code	Revision date	Mechanical Ventilation	Ventilation type	Pressure	Filtration
Single-bed cubicle	B1401	25/09/2013	4ac/hr (supply)	Central supply air	positive	G4 – minimum
Single bed cubicle: isolation	B1401-01	08/10/2013	HBN4 dependent	HBN4 dependent	balanced	F7 - minimum
Open Plan Bay 3 Cots: neonatal	B1407-01	25/09/2013	4ac/hr supply	Central supply air	positive	G4- minimum
Single cot cubicle: neonatal	B1421	8/10/2013	4ac/hr supply	Central supply air	positive	G4 minimum
Multi-bed bay 4 beds low acuity	B1609-01	25/09/2013	4ac/hr supply	Central supply air	positive	G4 minimum
Multi-bed bay: 4 beds High Acuity	B1609-02	25/09/2013	4ac/hr supply	Central supply air	positive	G4 minimum

11.40 **Draft Final Tenders**

11.40.1 Draft Final Tenders were submitted by bidders on the 21st October 2013. This was a 'dry run' for the Final Tender, allowing bidders to set out their solutions to NHSL and for NHSL to provide feedback on whether aspects of the Draft Final Tender met NHSL's requirements as set out in the ITPD.

11.40.2 The draft final tender was not scored. It was aimed at ensuring that no bids would be dismissed for non-compliance and that there would be three compliant bids to assess. The focus was on ensuring the bids submitted were complete and able to be evaluated. A 'compliant tender' is one which complies with the bid submission requirements set out in the ITPD, and which does not fail any of the pass/fail criteria.

11.41 The Inquiry Team understands that one bidder – Bidder C – submitted a marked up version of the EM. This sought to amend some of the entries to reflect Bidder C's ventilation strategy, "to enhance the proposed design criteria or to adjust values based on intended room use". Bidder C changed the air change rates for single bed cubicles and open plan bays in the PICU (Paediatric Intensive Care Unit) and Low Acuity department sub-groups from 4 ac/hr to 10 ac/hr. For single bed cubicles and open plan bays in the Neo-Natal and High Acuity department sub-groups Bidder C modified the air change rates to 6 ac/hr.

11.42 The Draft Final Tender review was completed on 13 November 2013 with Compliance and Feedback Reports issued to each Bidder. In order to "ensure fairness between bidders" no detailed feedback was to be provided "beyond setting out where that bidder does not meet minimum requirements". All of the bidders received the following feedback:

> "The Bidder should note there are a number of responses submitted in the Draft Final Tender that are unsatisfactory and, as such, currently constitute a 'fail' against the Board's minimum requirements; these unsatisfactory responses (clearly identified by inclusion of 'the Bidder has not provided a satisfactory response') MUST be addressed and failure to do so within the Bidder's Final Tender is likely to result in the Final Tender being rejected…
>
> The Bidder has not provided all the requirements as set out in ITPD Volume 1 Appendices AP1.1 Design Deliverables and AP1.2 Specifications; where these have not been submitted the Bidder has not provided a satisfactory response and this is likely to result in the Final Tender being rejected."

11.43 Feedback provided to IHSL alone was that:

> "The Board is disappointed that submissions have not developed in line with feedback and discussions in dialogue to date. The Board is unable to confirm whether the Bidder would meet the minimum requirements where an incomplete submission has been provided."

11.43.1 The Board held a final dialogue meeting with each bidder at which they provided feedback in relation to the draft final tender and clarified outstanding points. This final meeting took place on the following dates for each bidder:

> "(a) 19th November 2013 for Bidder A (B3);
>
> (b) 20th November 2013 for Bidder B (IHSL);
>
> (c) 21st November 2013 for Bidder C (Mosaic.)"

11.44 The action notes for dialogue meeting 6 held with bidder B do not record any feedback on the ventilation design, environmental matrix or room data sheets.

11.45 The following comments were provided with regard to the 'Approach to design and construction':

> "Where sections were 'under development' the Board cannot comment on IHSL's submission. The level of incomplete information caused considerable anxiety in a draft of final tender.
>
> NHSL will not review further submissions at this stage, however for sections submitted as part of Draft Final tender that the Board could not locate, IHSL are to confirm the title and location of the documents in Conject for the team to review.
>
> The Bidder will be informed if any such submissions do not meet the Board's requirements…"

11.46 The Action notes for Dialogue meeting 6 held with Bidder A and Bidder C do not record feedback on C8 Mechanical and Electrical engineering, nor do the

notes contain comments showing concern over the completeness of the draft final tender.

12. Close of Competitive Dialogue

12.1 Paragraph 5.15 of SCIM Guide 'From OJEU to Contract Award' states that the competitive dialogue stage should continue:

> "…until the contracting body is satisfied that it has identified the solution or solutions capable of meeting its needs and requirements with sufficient precision to enable Final Tenders (which fully meet these requirements) to be submitted."

12.2 Paragraph 5.19 states that:

> "There is no limit on the number of stages which can be used provided that, at the end of the dialogue, there are sufficient participants to allow for a genuine competition".

12.3 Paragraph 5.24 states that:

"It is vital that the dialogue continues until the contracting body has clearly identified and specified its detailed requirements, the solution(s) capable of meeting its needs and this, the basis upon which final tenders should be submitted. It must be confident that the remaining participants have sufficient information/clarity to be able to submit fully developed and 'final' tenders as the next stage only permits 'fine tuning'"

12.4 The project team recommended to the PSB that the competitive dialogue phased was concluded. The recommendation to close dialogue was discussed at the PSB meeting held on 29 November 2013. After discussion of a number of points to do with outstanding bidder's concerns and land issues:

> "SG [Susan Goldsmith] asked the Steering Board to confirm their support for closing dialogue as planned on 6 December. PR [Peter Reekie] noted that while the points discussed were outstanding, he saw no reason for them not to be completed in the next week to achieve Close of Dialogue. BC [Brian Currie] summarised the position that the team had reached, with three affordable bids for designs that met the Board's requirements. The team were to be congratulated on this achievement, and SG asked BC to pass on her thanks to the wider project team."

12.5 At this meeting Brian Currie also “raised again the project team’s concerns about achieving Financial Close with the Preferred Bidder in six months.”

12.6 Given the feedback provided at the draft final tender stage, which included an expression of considerable anxiety in relation to incomplete information in IHSL’s tender, it is not clear to the Inquiry Team why the project team and the PSB considered that it was appropriate to close the dialogue phase. This issue will require to be explored with witnesses at the hearing diet commencing on 24 April 2023.

13. Key Stage Review 2b: Pre-Close of Dialogue

13.1 The Pre-Close of Dialogue Key Stage Review was finalised on 13 December 2013.

13.2 Section 2: ‘Project Requirements’, question 2 asks:

> “Is the Procuring Authority, and are its advisers, satisfied with the overall quality and level of detail supplied by bidders during dialogue in respect of the design and build and service delivery solutions and that bidders’ proposals are capable of meeting its requirements?”

13.3 The response given is:

> “Recommendation: That, prior to close of dialogue, the Board receives and copies to SFT, letters, in the form of the drafts which the Board have earlier provided to SFT, from each of its financial, legal and technical advisers confirming that each consider that it is appropriate for the Board to close dialogue.”

13.4 Question 3 asks “Based on dialogue with bidders is the Procuring Authority satisfied that the final tenders will contain solutions that satisfy its operational and functional requirements?"

13.5 The answer provided is: "Yes".

13.6 Question 16 asks:

> “Please confirm what further development of technical information is

required from bidders between now and final tender submission and from the preferred bidder between appointment and financial close. Is the Procuring Authority, and are its advisers, satisfied that this is achievable within the current project timetable?"

13.7 The answer provided is "yes" with the comment:

"100% compliance for operational functionality and minimum room layouts has now been achieved with all bidders. The Board has reviewed the bidders' programmes for design development through to financial close. The Board consider that the programme from preferred bidder to financial close is challenging."

13.8 The conclusion in the KSR was that the Project was ready to proceed to the next stage subject to certain recommendations. These included letters being provided from financial, legal and technical advisers confirming that each consider that it is appropriate for NHSL to close dialogue.

13.9 The issues highlighted at the final tender stage, which included an expression of considerable anxiety in relation to incomplete information in IHSL's tender, were not addressed within the KSR. It is not clear to the Inquiry Team why these issues were not addressed. This issue will require to be explored with witnesses at the hearing diet commencing on 24 April 2023.

**Volume 2 of the PPP will address the period from the close of Competitive Dialogue until the award of the contract. Provisional conclusions will be set out at the end of Volume 2 in relation to the entire procurement phase.

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Schedule 1 to Multiplex's Response to Provisional Paper 3

Provisional Position Paper 3

The Procurement Process for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences

Volume 2: The Period from Close of Competitive Dialogue to the Award of the Contract

Purpose of the Paper

This Preliminary Position Paper has been produced to assist the Chair in addressing the terms of reference. It outlines the Inquiry Team's understanding of the procurement process for the award of the contract for the Royal Hospital for Children and Young People and Department of Clinical Neurosciences (RHCYP/DCN) project (the Project). Volume 1 addresses the period from the commencement of the procurement exercise up to the close of competitive dialogue. Volume 2 addresses the period from the close of competitive dialogue to the conclusion of the contract. Gaps in the Inquiry Team's understanding are also identified in both volumes. These matters will require to be explored in greater detail at the hearing set to commence on 24 April 2023. Further papers have been produced in relation to the development of the Reference Design and the Environmental Matrix.

An earlier draft of this paper was circulated to Core Participants (CP) for consideration and comment. Those comments have been considered by the Inquiry Team and taken into account in finalising this paper.

In due course, the Chair is likely to be invited by the Inquiry Team to make findings in fact based on the content of this paper. The Inquiry Team does not presently intend to lead further detailed evidence on the matters outlined in it, except where there are gaps in the Inquiry Team's understanding of the procurement exercise. However, it is inevitable that some of the matters covered in the paper will be touched upon to a greater or lesser extent in the hearing set to commence on 24 April 2023. In addition, it is open to any CP – through evidence or submissions – to seek to correct and/or contradict it. It is therefore possible that the Inquiry's understanding of matters set out in the paper may change, and so the position set out in this paper remains provisional. If it is the case that the Inquiry's understanding does change significantly, a revised edition of this paper may be published in due course.

Definitions and abbreviations from Volume 1 are utilised in Volume 2.

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14. Submission of Final Tenders

14.1 On 16 December 2013, after the close of competitive dialogue, NHSL invited bidders to submit their final tender in accordance with the 'Invitation to Submit Final Tender' (ISFT).

14.2 The expectation for the design at final tender is set out in the Scottish Capital Investment Manual (SCIM), NPD Guide: Section 2, paragraph 5.67:

> "The design at Final Tender stage must be sufficiently developed to enable the best tender to be selected but does not need to be at the level of detail which would be expected at contract signature stage. The process of design development, provided it has no or minimal impact on overall cost, should be regarded as clarification of design which should still be permissible under competitive dialogue."

14.3 The design at this stage is expected to include 1:200 plans and 1:50 for key areas, cross sections, site plans, area schedule, and performance specifications to be used to provide a fixed price bid.

14.4 The expectation for the development of proposals generally is set out in paragraph 6.22 which states:

> "…It is important that the Body is happy that a number of participants have developed acceptable solutions which will require minimum development following submission of Final Tenders. No material changes can be made to bids following submission of final tenders, unlike the previous negotiated procedures adopted in many PPP projects."

14.5 The SCIM provides a table to show the 'Commitment expected at each stage of procurement from Participants on major projects'. For final tender stage:

Commitment expected at the end of final tender stage	
State of contract discussions at end of stage:	Agreement on all key contractual issues affecting price and risk allocation, including payment mechanism and performance regime.
Designer:	1:200 plans with key departments at 1:50
Design and construct sub-contractor:	Confirmation of acceptance of draft contract, payment mechanism, performance regime and allocation of risks within consortium.
Services sub-contractor:	Confirmation of acceptance of draft standard contract, payment mechanism, performance regime and allocation of risks within consortium.
Bidding consortium:	Full financial model. Agreement on all points of principle on specifications.
Financial and Economic Standing/Funding:	Statement of support from funders/equity with draft term sheet and acceptance of standard contract terms, payment mechanism and performance regime, financial model and allocation of risks within consortium.

14.6 Like the ITPD, the ISFT comprised of four volumes:

- Volume 1 set out the general requirements of the Board, this being background information on the project, final tender requirements and how NHSL intended to evaluate the final tender, award the project and communicate with bidders;
- Volume 2 set out the contractual requirements of NHSL, which included the final tender (bidder specific) NPD Project Agreement, the Articles of Association and the Payment Mechanism;
- Volume 3 set out the specific technical requirements of NHSL, these being construction (clinical and non-clinical requirements), equipment requirements and facilities management requirements;
- Volume 4 set out the Data Room (a cloud storage facility) available to bidders.

14.7 The ISFT was the same as the ITPD except for the following changes:

- Volume 1 was updated to reflect notifications issued during the course of Competitive Dialogue.
- Volume 2 contained the Final Tender (Bidder Specific) Project Agreement, which reflected amendments agreed between NHSL, SFT and each bidder during competitive dialogue. It was issued separately to each bidder.
- Volume 3 included the Final Tender (Bidder Specific) Service Level Specification that had been developed during Competitive Dialogue.

14.8 Volume 3 also includes the Environmental Matrix in appendix C. The Inquiry Team is unclear whether the version of the Environmental Matrix issued with the ITPD was replaced with a bidder-specific version at the ISFT stage for bidders that had suggested changes to the Environmental Matrix during competitive dialogue. This will require to be explored with witnesses at the hearing commencing on 24 April 2023.

14.9 A summary of the final tender requirements for the technical submission is as follows:

- an executive summary which would not be scored;
- 'strategic and management approach' proposals some of which were scored on a pass or fail basis and some given a mark;
- 'approach to design and construction' proposals, including design deliverables set out in Appendix AP1.1 of the ISFT, some of which would be scored on a pass or fail basis and some given a mark;
- 'approach to facilities management' proposals some of which would be scored on a pass or fail basis and some given a mark;

14.10 All technical submissions formed part of the 'Quality Evaluation Mark' for which forty marks were available. Of that mark, 'strategic and management

approach' made up five percent, 'approach to design and construction' made up 23 percent and 'approach to facilities management' made up twelve percent. The remaining sixty marks out of a hundred were available for the price evaluation score.

14.11 As with the ITPD, Volume 1 set out general requirements. Section 2 was entitled 'Technical Overview'. Paragraph 2.4.1 stated that the specific requirements were set out in the 'Board's Construction Requirements' which were set out in section 3 of volume 3 of the ISFT. Innovation was encouraged but certain elements of the design, as they relate to Operational Functionality, were mandatory. This was described in Appendix E of volume 1 which was entitled 'Reference Design Elements'.

14.12 Paragraph 2.5 was entitled 'Reference Design and Mandatory Reference Design Requirements'. It outlined that a reference design had been developed which comprises mandatory and indicative elements. NHSL had spent time developing the reference design "…with significant clinical and stakeholder engagement…" prior to the commencement of the procurement exercise. The Mandatory Elements concerned Operational Functionality. In contrast to the ITPD, the ISFT contained new text explaining that NHSL would consider changes to the 'Mandatory Reference Design Requirements' (i.e. those elements relating to Operational Functionality) where a bidder considered that the 'Mandatory Reference Design Requirements' were not capable of meeting 'the Board's requirements'. The ISFT set out the process for bidders to notify NHSL of these changes. It also notes:

> "The Board confirms that the drafting in the ITPD around Operational Functionality is not intended to mandate elements of the Reference Design which demonstrably do not affect or impact Operational Use."

14.13 Paragraph 2.5.2 addressed room layouts:

> "During Dialogue Bidders were required to develop 1:50 layout drawings for a selection of rooms. The Preferred Bidder will be required to develop 1:50 layout drawings for all remaining rooms prior to Financial Close."

14.14 Section 2.5.3 was entitled ‘Room Data Sheets’. It narrated that standard form room data sheets have not been prepared by NHSL for the Project. The specific room requirements were set out in a combination of documents including ‘The Board’s Construction Requirements’ and the ‘Environmental Matrix’. Room Data sheets required to be developed for those rooms for which 1:50 layout drawings were prepared in dialogue as well as all Key Rooms and Generic Rooms. The ISFT stated that:

> “The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close.”

14.15 The ISFT stated that Bidder’s designs must achieve a “very good” BREEAM rating as a minimum.

14.16 Appendix K is entitled ‘Certificate of Acceptance of Contractual Terms’. This was to give confirmation that the Board’s Construction Requirements in volume 3 of the ISFT, and the NPD Agreement in volume 2, were acceptable to the tenderer.

14.17 Volume 3 of the ISFT, which set out the Board’s Construction Requirements, did not contain changes to Section 2 ‘Project Wide Requirements’ and Section 8 ‘Mechanical and Electrical Engineering Requirements’ that are relevant to this paper.

14.18 Section 2 of Volume 3 set out the general requirements of NHSL and lists the guidance to which the facilities must comply (including HTM and SHTM), and explains the hierarchy of standards to use in cases of inconsistency or contradiction between standards contained in the guidance or the Board’s Construction Requirements.

Paragraph 2.3 stated: “In addition to the standards listed in paragraph 2.4 of this Sub-Section C, unless the Board has expressed elsewhere in the Board’s Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time: h) HTM and SHTM

14.19 Section 8 states that “Project Co shall provide the Works to comply with the Environmental Matrix” and that Project Co shall ensure that the "design, construction and selection of components for the mechanical and electrical works” comply with the guidance listed in Section 2 as well as in Section 8.1.

This includes SHTM 03-01 which provides guidance on ventilation for healthcare premises, and CEL 19 (2010) ‘A Policy for Design Quality for NHSScotland’, 2010 Revision published by the Scottish Government, which mandates the use of Activity Database (ADB) or an equivalent.

14.20 ADB referred to above is a computer software package developed by the Department of Health, England, that assists healthcare planners, architects and teams involved in the briefing, design and equipping of healthcare environments. Content for ADB is developed from technical guidance such as Health Building Notes and Health Technical Memoranda (HTM). SHTMs are the Scottish equivalent of HTMs. ADB can be used in the production of Room Data Sheets, which outline the environmental specifications for each room of the hospital.

14.21 Bidders submitted their final tenders on 13 January 2014.

14.22 IHSL’s final tender for C8: Mechanical and Electrical Engineering Design Proposals included their ventilation strategy:

> “C8.2 (iii): Temperature Control:
>
> Internal design criteria have been demonstrated through thermodynamic modelling. The solution provides the benefits of natural ventilation supplemented by a mixed mode mechanical ventilation solution which when operating in conjunction with ceiling mounted radiant panel heaters provides an element of user adjustable control.
>
> C8.2 (iv) Environmental Quality

> Experiences from the adjacent RIE prove conditions are not acceptable when reliant on natural ventilation alone, a mixed mode ventilation approach has therefore been adopted which allows a maximum internal temperature of 25°C. Cooled air will be automatically delivered to the naturally ventilated spaces if the room temperature is sensed to be above 25°C to reduce the temperature. This 'peak loping' approach ensures the risk of overheating is minimized and thermal comfort is maintained while reducing energy consumption compared to a fully mechanically ventilated approach.
>
> The ventilation, heating and comfort cooling strategy will ensure a good indoor air quality which together with the natural and artificial lighting strategy shall ensure comfort thus preventing sick building syndrome. Care shall be taken in the location of ventilation intakes to minimise the risk of external contaminants."

14.23 C8.2 (x) and C8.3 refer to the Environmental Matrix (EM). The requirement for C8.2 (x) was for bidders to provide an "environmental conditions/room provisions matrix" for both mechanical and electrical services for each room in the Facilities. C8.3 stated that a draft environmental matrix had been provided by the Board as part of the ITPD documentation, that bidders "must confirm acceptance of… highlighting any proposed changes on an exception basis". The EM was a spreadsheet that outlined the ventilation specifications for each room in the hospital. The development of the EM and potential inconsistencies between the EM and Scottish Healthcare guidance is the subject of the Inquiry's Provisional Position Paper 2.

14.24 IHSL's final tender submission for 'C8.2 (x) Environmental Conditions Room Matrix' stated:

> The mechanical electrical services shall be provided in accordance with the reference design environmental matrix and we shall provide an addendum matrix for any rooms on an exception basis highlighting any changes at preferred bid stage.
>
> Environmental Conditions:

We have followed the reference design and have utilised the reference design matrix to compile the room environmental proposal drawings listed below…"

14.25 A list of drawings followed, including the ventilation strategy for the first floor, where B1 Critical Care is located: titled 'WW -SZ-01 – PL -524-001_FT – First Floor Plan – Ventilation Strategy'. The drawing only indicates ventilation type, it does not provide more detailed data on the exact air change rate or pressure regime for different rooms. Shading is used to indicate the type of ventilation for each room, specifically, whether a room required "central supply and extract", "central supply air", "central general extract", "central dirty extract", "HBN 4 Dependant", "In line with SHTM 03-01" or "natural vent" ventilation.

14.26 IHSL's response to C8.2 (x) continues: "The room temperature set points, air change rate and ands [sic] shall be in accordance [sic] SHTM 03 [sic] and lighting information as CIBSE guide LG2."

14.27 Also under C8.2 (x), a table is provided, indicating that HDU (High Dependency Unit) should have 10 air changes per hour of supply air (stated as 'Ac/hr'). Air changes per hour refers to the number of times the entire volume of air in a room is completely removed and replaced with fresh air. The ventilation type, in this case 'supply' refers to the provision of fresh air into a room when the air movement needs to be controlled. Ventilation 'extract' involves the removal of contaminated air from a room.

Typical Room	Temperature		Ventilation		Lighting
	Design Maximum deg C	Design Minimum deg C	Supply Ac/hr	Extract Ac/hr	Normal Lux
Bathroom	28	18	0	10	200
Bedroom	25	20	4	0	100
Consulting Room	28	18	3	3	300
Clean Utility	28	18	6	0	150
Dirty Utility	28	18	0	6	200
HDU	25	18	10	0	400
Patient Accommodation Day	25	18	4	0	100
Multi-bed Wards	25	18	4	0	100
Treatment Room	28	18	10	0	500
Operating Theatre Suite	28	18	In line with SHTM03-01 in line SHTM03-01		500
Operating Theatre Recovery	25	18	15	15	500
Pantry	28	18	6	8	300

Text below the table states:

> "Where comfort cooled fresh air is indicated, the mechanical ventilation systems shall be supplemented by the ability to open the windows"

14.28 Under section 'C 8.3 Environmental Matrix' IHSL's submission stated:

> "As indicated above no changes proposed at this time nor envisaged in the future but we will continue to review and advise back. The solutions are refenced on the Heating, Ventilation and Cooling strategy drawings, sequence 521, 524 and 525 recorded in AP1.1 Section 5.1 Mechanical Drawing Schedule."

14.29 IHSL did not submit a separate environmental conditions room matrix or a marked up version of the EM with their final tender submission for C8. The drawings referred to above include drawings for the ventilation strategy for each floor, discussed above.

14.30 Bidder C described the following ventilation strategy in their final tender for 'C8 Mechanical and Electrical Design Proposals':

> "…In order to maximise energy efficiency, the air flow rate will be based on the calculated flow to suit occupancy and provide required cooling as required [sic]. As a result of our study, we have proposed a lower air flow of

four air changes/hr (which have been agreed in dialogue meetings, despite being lower than those specified in SHTM 03), and the addition of terminal cooling to achieve the required environmental control.

Ventilation air flow rates for mechanical ventilation will be based on a typical occupancy:

- Single rooms: one patient and two others (visitors or clinicians)
- Multi-bed rooms: as above, three people per bed space

These will result in a similar air flow to the provision of four air changes/hr included in the reference design, though with the additional benefit of terminal heating / cooling via the beam."

During Dialogue meetings with Bidder C NHSL agreed 4 AC/hr in bedrooms despite this being lower than that indicated in SHTM 03

14.31 Bidder C's response to the requirement under C.2 (x) for an 'environmental conditions/room provisions matrix' was:

"The [Bidder C] environmental matrices have been produced to reflect the design criteria used as the basis of the [Bidder C] proposals. The criteria contained within the matrices are intended to represent the standards and strategy of the engineering proposals.

The matrices have been derived from the reference design environmental matrices in order to show where the design criteria have been modified to reflect the [Bidder C] engineering strategy.

Refer to Appendix 1 - Environmental matrix."

14.32 Under C8.3, bidders were asked to "confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis". Bidder C's response was:

"It is noted that the design data contained in the reference design matrices is considered to represent the mandatory standards and should be adopted by bidders. It is also noted that any deviations from the reference design matrices should be identified.

It is [Bidder C]'s intent to generally follow the reference design environmental matrices except where the criteria are modified by the different engineering strategies proposed, for example the proposed use of chilled beams combined with fresh supply rates based on occupancy. All adjustments to the reference design criteria have been highlighted in red in the proposed matrices.

Some other criteria have been modified to enhance the proposed design criteria or adjust values based on the intended room use. Again all adjustments have been highlighted in red."

14.33 Bidder C's response to C8.3 included further detail on the changes they made to the EM due to their engineering strategies. They did not describe changes made to the air change rates in Department B1 (Critical Care). Bidder C replicated the guidance notes contained in the EM "for clarity". The guidance relating to HDU bed areas and Critical Care areas stated:

"HDU bed areas:

Design criteria contained in HBN 57 gives specific guidance as well as SHTM 03-01 – especially Appendix 1 for air change rates – 10 ac/hr supply, 18°C to 25°C control range. This capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions. The department should be air conditioned and controlled on a zonal basis."

"Critical care areas:

Design criteria contained in SHTM 03-01, especially Appendix 1 for air change rates – 10ac/hr supply , 18°C to 25°C control range. This capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions. NHSL may require specific rooms to have a control range up to 28C"

14.34 Bidder C's EM contained changes to the specifications for Department B1

(Critical Care, HDU and Neo-Natal Surgery). In the PICU (Paediatric Intensive Care Unit) and Low Acuity department sub-groups the air changes for single bed cubicles and open plan bays have been changed from 4 to 10 air changes per hour. For Neo-Natal and High Acuity department sub-groups the air change rates have been changed from 4 to 6 air changes per hour.

14.35 IHSL's energy strategy was to minimise energy requirements by adopting passive design features, which included using natural ventilation. This would help them to achieve ENE 01 BREEAM compliance, compliance with building standards, and achieve 90% of the desirable requirements of the Edinburgh Council Standard for Sustainable Buildings.

14.36 The input data used for their operational energy model includes mechanical ventilation specifications for a number of different room types, as well as an indication of whether or not natural ventilation would be used for that room. The list of room types includes "bedroom" and "ward areas" with 4ac/hr mixed mode ventilation. It does not include "HDU", "Critical Care" or "Isolation".

14.37 IHSL's energy model and ventilation strategy is set out in their submission on Building Services Deliverables: Mechanical and Electrical Services. Paragraph 5.9.6 describes the Natural Ventilation Strategy:

> "5.9.6.1 Purpose of Ventilation:
>
> Ventilation in the healthcare environment can be naturally or mechanically driven and serves a number of purposes which can be summarised as follows:-
>
> - Providing fresh air for normal respiratory purposes
> - Diluting the level of CO2 in the space
> - Removal of odours and pollutants
> - Control of temperature and humidity
> - Control of infection
> - Specialist process requirements
> - Occupants experience a feeling of wellbeing

> The use of natural ventilation will minimise the need for energy to drive fans. However many clinical requirements, in for example Operating Theatres, necessitate the use of mechanically driven ventilation for close environmentally controlled spaces and departments having high equipment heat gains. Furthermore, despite carefully considered planning, building constraints invariably lead to spaces that do not have access to natural ventilation
>
> …
>
> Studies have been carried out into particular areas of the hospitals – wards, for instance, which make up a significant proportion of the hospital - to determine whether natural ventilation can be employed to achieve the purposes as set out above, within the targets set down by the Board in the ITPD documents."

14.38 The document notes, at paragraph 5.9.6.2, that "there are a number of situations in which natural ventilation may not be suitable or desirable" and states that local factors need to be taken into account which "include but are not restricted to", air permeability or air tightness of the building, outdoor air quality, indoor air quality, pollution and thermal comfort. The document states that while some departments or rooms within departments shall be mechanically ventilated "consideration has been given to naturally ventilating the maximum possible number of areas". It then refers to an analysis done on the "option of naturally ventilating the wards as they form a large proportion of the building". The document continues:

> "5.9.6.3 Analysis of the ventilation strategy for the building
>
> …
>
> The thermal modelling has concentrated on the typical ward specifically considered two adjacent ward bedrooms located on each face of the main building. In association with the thermal modelling, daylight simulation calculations have been undertaken as part of a strategy to achieve a BREEAM 'Excellent' rating for ENE1 for the new hospital. These

calculations determined the optimum window sizes required for the daylighting percentage.

Due to the low envelope air permeability mechanical make-up ventilation is provided to the bedrooms to match the extract from the adjacent bedroom en-suite toilet/shower rooms. This adds the benefit of being able to condition this air, particularly in warm weather, to assist in reducing overheating.

Below are two examples of simulations that were carried out to reach a final solution, however, these are the culmination of many other simulations carried out using differing design criteria and options.

Single Bedroom Ward, South Facing Exposed (Summer) with mixed mode ventilation

- Opening windows – restricted opening to 100mm.
- Supply air provided if the room air temperature is great than 25°C.
- External air 4 ACH cooled to 18°C
- No reliance on uncontrolled infiltration for cooling.

…

5.9.6.4 Conclusion

The results show that in the wards a mixed mode, natural and mechanical ventilation combination…does provide the solution to meeting the overheating criteria in the rooms. It is proposed that all ward rooms adopt this mixed mode approach and are be provided with a means of cooling in the form of tempered fresh air from central plant along with a restricted opening window.

It is envisaged that generally only small perimeter non clinical rooms with low occupancy and low heat gains will be solely naturally ventilated. Other similar but larger more densely populated rooms will employ a mixed mode system. Then as stated above the majority of the clinical spaces will be mechanically ventilated or mechanically or air conditioned."

14.39 The document goes on to outline IHSL's 'Mechanical Ventilation Strategy' at

paragraph 5.9.7:

> "The ventilation systems to the Hospital are designed in accordance with Scottish Health Technical Memorandum SHTM 03-01. Ventilation shall be provided to suit both the operational and statutory requirements of the development. Although the development has been designed to maximise the use of natural ventilation, it is intended that rooms will not be reliant on natural ventilation alone, unless they comply with maximum temperature limits listed in the RDS Environmental Matrices.
>
> To obviate problems with overheating due to 100mm opening restrictions on opening windows, we have included for mechanical supply ventilation for the Ward Areas and to provide mechanical cooling to all tempered air supply air handling units to provide the ability to supply air temperature at a condition to ensure the internal temperatures in patient areas shall be maintained within comfort levels as illustrated within the separate Ward Bedroom Comfort Analysis Report."

14.40 Paragraph 5.9.10 describes the 'Specialist Ventilation Strategy', focusing on isolation rooms:

> "Designated Isolation Rooms shall be provided with HBN4 positively pressurised lobby ventilation for isolation purposes along with independent en-suite extract to roof mounted extract fans with discharge stacks or Hepa filtration as appropriate."

14.41 No further information is provided for any other rooms of the hospital which may require specialist ventilation for the control of infection or for other purposes. However, paragraph 5.9.14.1, which provides an overview of the 'Building Energy and Management System' states:

> "The environmental conditions within the hospital spaces are controlled to ensure high levels of comfort to the occupants, overall energy efficiency of the system and also infection control needs and other clinical

requirements as prescribed in the SHTMs."

14.42 Paragraph 5.12 refers to 1:50 drawings of 'mechanical and electrical services sections'.

14.43 IHSL's final tender for 'Specification for Ventilation Systems' included a section entitled 'Applicable Standards'. It states that: "The Ventilation System shall accord with all appropriate Hospital Technical Memoranda, Codes of Practice and Relevant British and European Standards and Appendix A". Under section 6.0 'Design Criteria' it states, "For ventilation/air change rates used in the design, the Sub-contractor shall refer to the ADB sheets."

14.44 Paragraph 8.1 is entitled 'Background to Ventilation and Air Conditioning Installations'. It states that the building is based on a mixed mode solution. Under 'U10 Ventilation systems', detail is provided regarding 'All Air Systems':

"…

Areas shall be controlled in zones or as individual rooms as necessary to achieve the conditions required by the ADB Sheets.

Supply plants shall incorporate panel type coarse pre-filters followed by high efficiency bag filters. Absolute HEPA (high efficiency particulate air) terminal filters shall be provided only for 'ultra clean' areas such as UCV Theatres for Orthopaedic and Neurosurgical and isolation rooms. Some isolation rooms incorporate HEPA filters on the extract system.

Full humidity control, including humidification and dehumidification, shall be provided only in critical care clinical areas, such [as] operating theatres, recovery, radiology and MRI Scanner or wherever close control of humidity is required for the successful operation of sensitive equipment, e.g. computers, as advised by the ADB Sheets. Steam shall be provided by dedicated gas fired steam boiler plant and direct injection humidifiers.

Air pressure regimes for theatre suites shall be designed in accordance with the guidance provided in SHTM 03-1 employing wall mounted pressure stabilisers.

Air volumes have been established by consideration of heat gains or losses and also the air change rate necessary for comfort and safety as appropriate for the activity carried out in each area. Relative air pressures between rooms shall be maintained to suit the activity concerned, by design of the supply and extract air volumes, and use of pressure relief equipment where necessary to prevent cross infection or transfer of unpleasant odours between areas, as required by the ADB sheets.

Heat recovery shall be provided between the supply and extract systems. The hospital ventilation systems shall be in accordance with SHTM 03-01 Ventilation in health care premises, DW 144 and DW 143…"

14.44.1 DW 143, referred to above, is titled, 'A practical guide to ductwork leakage testing. HVCA Publications, 1998.' DW 144 is 'Specification for sheet metal ductwork, low, medium & high pressure/velocity air systems. HVCA Publications, 1998.'

14.45 Information is provided regarding different room types, specifically, wards, isolation rooms, outpatient type departments, operating theatres, critical care departments, comfort cooled areas. Details regarding exact air change rates, pressure regimes and other technical information is not provided. The section on Critical Care states:

"Critical care departments such as ITU/HDU shall be provided with dedicated ventilation systems.

The supply air ventilation plant shall heat and cool the air as required by the control system to provide the correct condition in the various rooms/zones.

Final temperature control to the spaces shall be achieved by terminal reheaters controlled from user adjustable sensors within each space. Heater batteries shall be located wherever possible in plant areas, but where heaters can only be provided in the ceiling void of the occupied space they shall be located away from patient occupied spaces, i.e. bed spaces.

Heat recovery shall be provided between the supply and extract systems."

14.46 For final tender submissions for section C2 ‘Robustness and Quality of Approach to design quality’ bidders were asked to:

> “submit proposals setting out how the design will be developed to integrate the architectural, mechanical, electrical and civil and structural engineering aspects of the design to present a cohesive innovative design which meets all the Board’s construction and stakeholders’ requirements (including infection control and HAI-SCRIBE requirements). The submission shall utilise all Mandatory Reference Design Requirements to deliver a solution across all disciplines.”

14.47 HAI-SCRIBE referred to above stands for Healthcare Associated Infection System (for) Controlling Risk In the Built Environment. The system was developed to ensure that infection prevention and control risks are identified and managed in the built environment (a hospital or other healthcare facility). The Infection Prevention and Control measures are put in place and maintained for the lifetime of the healthcare facility by HAI-SCRIBE. The potential risks related to the proposed site development, design and planning, construction or refurbishment and ongoing maintenance of the healthcare facilities can be identified and managed by the HAI-SCRIBE system.

14.48 Infection control risks are identified at each of the following stages of the lifecycle of the healthcare facility using HAI-SCRIBE.

- Development Stage 1 – considers the initial brief and proposed site for development.
- Development Stage 2 – Design and planning
- Development Stage 3 – Construction and refurbishment
- Development Stage 4 – Pre-handover check, ongoing maintenance and feedback.

14.48.1 There are three key parts in respect of implementing the HAI-SCRIBE system:

Part A: Assembling the project team and ensuring that HAI-SCRIBE forms part of its responsibilities.

Part B: Assessing the risk by the use of question sets (1) – (4).

Part C: Gathering the information to inform dialogue. This is set out in the planning and design manual (SHFN 30, Part A).

14.48.2 IHSL's tender contained the following information in relation to 'Integrated Approach', 'Design Reviews', and 'HAI-SCRIBE':

"Integrated Approach:

Our whole team has pursued an integrated approach from our site wide master planning through to design development, detail design and clinical planning for all elements of the new RHSC & DCN facility. This has involved coordinating the skills of the many specialist consultants together with input and feedback from NHS Lothian's team during the dialogue process...

Design Reviews

The Design Team have been meeting regularly through the detail design stages to ensure that all aspects of the structure, fabric and building services are fully integrated. We have also held three full 'Design Reviews' chaired by Chris Liddle our Design Champion to ensure that all aspects of the design including the clinical planning presents a cohesive design based upon function, clarify and the creation of a high quality environment for patients, staff and visitors.

…

HAI-Scribe

Throughout our development of the design we have taken cognisance of the requirements of HAI-SCRIBE and have designed in measures that will eliminate or minimise the effect of healthcare associated infection. We

have ensured that infection control principles are incorporated into our design, drawing on national guidance particularly 'infection control in the built environment: design and planning (SHFN30 version 3).'

We have carried out internal HAI-SCRIBE reviews, however we are aware that it will require further reviews with NHS Lothian representatives (particularly infection control) as we continue to work through Preferred Bidder, Financial Close and construction on the live hospital campus and on-going maintenance.

IHS Lothian have undertaken a HAI-SCRIBE review as part of the ITPD stage and we will continue this throughout the whole project as we know that it is more cost effective to achieve management of infection at the planning stage. Such assessments and records will also assist the Board Infection Control Risk Management Group.

The building services installation has been designed in line with HAI-SCRIBE and the building services shall be reviewed at each of the stages in the HAI-SCRIBE risk assessment process.

We have also taken cognisance of the following and have developed designs to accommodate control of infection issues taking into account the following…"

14.49 What follows is a long list which includes en-suite toilets, isolation rooms, suitable ventilation systems, use of natural ventilation Critical Care areas are not mentioned.

14.50 In Section C2.2 "Site Analysis/Analysis of Board's Requirements" IHSL stated under "Mechanical and Electrical Engineering Requirements", that the engineering systems have been designed to comply with the list of SHTM's, HBN's and HTM's applicable to the facilities and listed within the BCRs. IHSL also stated that they had reviewed design guidance documents and principles set out in the BCRs and CEL 19 (2010), "A Policy for Design Quality for NHS Scotland".

14.51 Section C3, "Clarity and Robustness And Quality of Architectural And Landscape Design" contains a section C3.1 viii on how the design will fully address control of infection and HAI Scribe. IHSL's tender stated:

> "We have taken cognisance of the requirements of HAI-SCRIBE and have integrated them throughout all aspects of the design. We have carried out internal HAI-SCRIBE reviews however are aware that it will require a comprehensive review with NHS Lothian representatives (particularly infection control) as we continue to work beyond Preferred Bidder towards Financial Close.
>
> We have worked on the assumption that Development Stage 1 of the HAI-SCRIBE process has already been implemented and completed by NHSL and their technical advisory team and the following comments are therefore restricted to any design issues relevant to the current status of the scheme, which equates to part completion of Development Stage 2. It is at this stage that we are required to identify any hazards associated with potential HAI risks and consider any measures which might be required to mitigate and manage them…"

14.52 IHSL included a copy of the HAI-SCRIBE "checklist for Development Stage 2: HAI-SCRIBE Applied to Planning and Design Stage of Development", which IHSL had completed. Under question 3.1 "Does the design and layout of the healthcare facility inhibit the spread of infection?", there is a tick under "yes". Under question 3.2 "Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems", there is a tick under "yes".

14.53 IHSL's submission on 'Acceptable Post Preferred Bidder Stage Design Development Proposals and Design Programme' described how they would manage the design process to financial close should they be selected as preferred bidder. It included development of room data sheets and use of Activity Database:

> "Room Data Sheets (RDS) Design Deliverables and Equipment Schedule – Enhancement and Improvement of the Design.
>
> The PBS [Preferred Bidder Stage] Launch Meeting will be utilised to discuss the project set-up and project protocols. This is when the following items will be reviewed, to ensure that the RDS Work stream can progress

to programme:

- Agree which Design Group will lead (assume Project Technical Design Group Lead). Possible detailed further review of rooms in appropriate Clinical Group – Key rooms and Generic rooms.
- Review Project Equipment Standardisation, including Equipment Unions.
- Project Database Set-Up.
- Review RDS already produced for the Rooms and agree proposed amendments based on above.
- Room Type Schedule – Review Room Types/ADB room briefing codes – agree number of types (encourage as much standardisation as clinically possible ie possible increase to Generic Rooms within the 31 types already established). Note this discussion will continue during the Technical Design Group/Equipment Design Workshops

  …
- Agree strategy for design development of Specialist Equipment (e.g. Imaging Equipment). Note this discussion will continue during the Technical Design Group / Equipment Design Workshops.

The RDS for the Generic and Key Rooms will be targeted for review in DDM 1 and remaining Room Types will be targeted for review in DDM 2 and agreed in principle in DDM 3 to allow the release [sic] the ADB database for commencement of the main 1:50 Design Programme. A summary of the initial RDS Production Programme (in ADB) is as follows:

- Generic Rooms – RDS brief agreement and release for 1:50 Design in DDM 1.
- Key Rooms – RDS brief agreement and release for 1:50 Design in DDM 1
- Remaining Room Types – RDS brief agreement and release for 1:50 Design in DDM 2 and DDM 3 (if required)…"

14.54 In their tender submission for 'C21: Compliance', IHSL confirmed compliance with the Board's Construction Requirements subject to any derogations

scheduled in their submission for Section C30. Their submission C30 'Assumptions and Derogations from the Board's Construction Requirements' does not contain any derogations from SHTM 03-01, NHSL's mechanical and electrical requirements, or the Reference Design Environmental Matrix.

14.55 Bidder C's final tender Submission for C30 "Assumptions and Derogations" states:

> "We confirm that our design solution complies with the Board's Construction Requirements, however, where there are specific areas of this document that we wish to clarify, our clarifications are set out below."

14.56 One of the clarifications is with respect to Section 8: Mechanical & Electrical Engineering Requirements: "Project Co shall provide the Works to comply with the Environmental Matrix". Bidder C's clarification is "Refer to [Bidder C] response C8.3 for comments on environmental matrix." Further clarifications are made regarding thermal requirements and internal air quality, the latter including reference to meeting requirements in SHTM 03-01.

15. Evaluation of Final Tenders

15.1 Evaluation of final tenders took place in the period from 13 January 2014 to 28 February 2014. This was a shorter period than initially programmed. In November 2012, after discussion between NHSL, SFT and SGHD, it was unanimously agreed to adopt a compressed programme with tender evaluation duration shortened from 75 days to 39 days.

15.2 The evaluation of each criteria set out in the final tenders was led by a member of the Core Evaluation Team and included members of NHSL's project team and external advisers.

15.3 In terms of the Quality Evaluation Criteria, which comprised of evaluating Section B (Strategic and Management), Section C (Approach to Design and Construction) and Section D (Approach to Facilities Management), this was arranged as follows:

- Iain Graham led the evaluation of Section B (Strategic and Management) and was supported by MM [Mott MacDonald], MacRoberts LLP and Ernst & Young. This was a scored and pass/fail evaluation;
- Brian Currie (NHSL) led the evaluation of Section C (Approach to Design and Construction) and was supported by MM. This contained a mixture of 'scored' and 'pass/fail' evaluations. Evaluation team members included:

  From NHSL:

  - Brian Currie (Project Director)
  - Janice Mackenzie (Project Clinical Director)
  - James Steers (Clinical Director)
  - Fiona Halcrow (Service Project Manager)
  - Janette Richards (Infection Control)
  - Neil McLennan (Capital Project Manager)
  - Ernie Bain (Estates Manager)
  - Charlie Halpin (Energy and Environment Manager)

  Advisers:

  - Richard Cantlay (Lead Technical Adviser)
  - Graeme Greer (Technical Adviser)
  - David Stillie (Technical Architectural Adviser)
  - Colin Macrae (Technical M&E Adviser)
  - Andrew Duncan (Technical Construction Adviser)
  - Fraser Littlejohn (Technical Planning Adviser)
  - Rod Shaw (Technical Cost Adviser)
- Jackie Sansbury led the evaluation of Section D (Approach to Facilities Management) and was supported by MM. This was a scored and pass/fail evaluation.

15.4 The price evaluation was led by Iain Graham, supported by Ernst & Young.

15.5 The document 'Competitive Dialogue Project Plan and Final Tender Evaluation' includes guidance on quality scoring for the technical submissions:

> "Using the Final Tender Evaluation Proforma in Appendix E, the Evaluation Group members will each undertake individual evaluation of the relevant evaluation criteria within each Bidders' Final Tender Submissions against the prescribed scoring criteria before meeting with their Group in a workshop, chaired by the Core Evaluation Team member leading that Group, to agree the final consensus scores for each of the evaluation criteria for which that Group is responsible.
>
> Once the evaluation has been completed for each Bidder the Core Evaluation Author and CET [Core Evaluation Team] Lead will be responsible for preparing the final scoring report using the Final Tender Evaluation Scoring Matrix at Appendix F, with associated commentary, as appropriate. The completed scoring report will be submitted to the Core Evaluation Team to allow the final scores to be checked and verified and the selection of the Preferred Bidder to be made."

15.6 The Inquiry Team understands that this guidance was followed in the assessment process with a consensus score being allocated.

15.7 Brian Currie and Ernie Bain (Estates Manager) from NHSL were responsible for evaluation of 'C8 M&E engineering design proposals' and 'C10: energy management proposals'. They were advised by Kamil Kolodziejczyk and Colin Macrae, technical advisers from MM.

15.8 IHSL's submission for C8 'M&E engineering design proposals' received an overall score of 5, meaning 'satisfactory'. This meant the evaluation team assessed that IHSL's approach:

- demonstrates a satisfactory understanding of all aspects of the Board's requirements; and/or
- proposes a solution which performs satisfactorily in complying with the

Board's requirements.

15.9 According to the Reviewers' comments many of the components of IHSL's tender "lacked detail", were "basic" or "minimal", and some were not provided. Examples included:

- In terms of the requirement that "Bidder's **must** submit proposals setting out the engineering services design for each element of the scheme in sufficient detail to demonstrate compliance with the Board's Construction Requirements." the Reviewers determined that the brief was achieved. The comment provided is:

  "Lacking detail on design philosophy and BCR compliance".

- [The] "environmental conditions/room provisions matrix for both mechanical and electrical services for each room in the Facilities" section records that the brief was achieved. The Reviewers comment is:

  "No matrix provide, (sic) but environmental layout drawings provided."

- The section on "Major plant life cycle statements… to support the lifecycle costing analysis completed in the technical costs proforma." records that the brief was achieved. The Reviewers comment is:

  "Basic statement referring to CIBSE guidance for life cycles. No costs provided."

- C8.3 stated that "Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an acceptance basis." IHSL did not provide an a marked up environmental matrix, but in their submission had noted that "no changes proposed at this time nor envisaged in the future." The Reviewers concluded that the brief had been achieved. The Reviewers commented:

"Good response."

15.10 It is not clear to the Inquiry Team why the Reviewers considered that IHSL's response in relation to the EM was "good". The Inquiry Team has identified potential discrepancies between values for environmental conditions in the EM and published guidance. These potential discrepancies are covered in greater detail in the separate papers on the Reference Design and the Environmental Matrix. The basis for assessing IHSL's response as "good" will require to be explored with witnesses at the diet of hearings commencing on 24 April 2023.

15.11 The proforma report for C10, energy management proposals, was scored 7, meaning "good". The Reviewers comments record that "Naturally ventilated room depths minimised to ensure effectiveness of single sided ventilation".

15.12 A document was prepared comparing the strengths, weaknesses and evaluation summaries of the three bidders final tender submissions for 'Design and Construct'. Both bidder A and bidder C scored higher than Bidder B (IHSL) for C8 "mechanical and electrical engineering". The weakness of IHSL's submission was: "Many sections do not have detailed descriptions or explanations. Two CHP proposed, three would be ideal." The 'strength' was "Good level of drawings provided". Bidder B received a score of 5 and the "evaluation summary" was "Satisfactory response, covering the required criteria". Bidder C received a score of eight and the evaluation summary was "Very good narrative descriptions on most elements providing a good level of detail to demonstrate compliance."

15.13 IHSL received the lowest score out of the three bidders for C8.

15.14 IHSL received the highest score out of the three bidders for C1, "meeting the stakeholders requirements", C3 "architectural and landscape design", C6 "Way finding and signage", C7 Interior Design Proposals, C9 "natural and artificial lighting" and C24 "construction methodology". IHSL were the only bidder to receive scores above eight, including a score of nine for "Wayfinding and signage proposal", and 10 for "architectural and landscape design" and "interior design".

15.15 The submission for C21: “Compliance with Board’s Construction Requirements” was assessed on a pass or fail basis, and C30: “Assumptions and Derogations” was not scored. David Stillie (MM) provided comments on all three bidder’s responses to C30. With respect to IHSL, it was noted:

> “As IHS Proposals are compliant with a mandatory reference design requirements, we assume that all derogations which would have been required in construction of the reference design will be acceptable to NHS Lothian…
> This bidder has adopted the Reference Design and has accepted compliance with the Board’s core requirements. The above represents those responses that I feel need further discussion with the Board or amongst ourselves before we can be happy with them.”

15.16 In their submission for C30 Bidder C, had referred to their modified environmental matrix with respect to NHSL’s requirement in Section 8 of the BCRs that “Project Co shall provide the Works to comply with the Environmental Matrix”. David Stillie commented: “I assume Colin has looked at M&E content” but made no further comment with respect to Bidder C’s proposed changes to the Environmental Matrix.

15.17 The scores for quality and price were compiled to complete the assessment of tenders. IHSL’s combined score was the highest of the three bidders.

15.18 Sorrel Cosens prepared a paper for the PSB on 28 February 2014 confirming completion of the evaluation of final tenders. At this meeting, the evaluation of the three tenders was discussed. Brian Currie stated that the evaluation was “robust” and that a consensus had been reached. Brian Currie and Iain Graham highlighted that the three bids were extremely close “which was a testament to the success of the competitive dialogue in ensuring that all three bids met NHSL's requirements”. The project team’s recommendation for appointment of the preferred bidder was approved for sharing with the NHSL’s Finance and Resources (F&R) Committee.

16. Key Stage Review 3: Pre-Preferred Bidder

16.1 Key Stage Review 3: Pre-Preferred Bidder Appointment was finalised on 28 February 2014. In Section 2 “Project Requirements”, Question three, states “Is the Procuring Authority, and are its advisers, satisfied that any further development of technical information required from the preferred bidder appointment to financial close is achievable within the current project timetable?”. The response is “yes” with the comment:

> "The Board has confirmed that all bidders have provided detailed programmes to cover the activities for the period until FC and that the development of the technical information is at least as advanced as the Board anticipated at this stage.
>
> The Board and its advisers are satisfied that any further development of technical information from PB appointment to FC is achievable within the current project timetable"

16.2 Section 5 was entitled “Commercial”. Question 29 stated: “Please describe the risks that the Procuring Authority considers to be most significant to the preferred bidder stage and the strategy for managing these risks”. The comment provided was “The key risks in the Updated risk register are as listed in Annex B”. The risk register in Annex B set out ‘key risks. “Programme delay in reaching Financial Close” was noted as a risk. Its status was ‘red’. The “Adequacy of Controls” was stated, in bold, as “**Not satisfactory at present**”. The risk register recorded that the project team “…continue to be sceptical regarding delivery of financial close in less than six months from the appointment of Preferred Bidder”.

17. Selection of the preferred bidder

17.1 Two papers were prepared for the (F&R) Committee meeting on the 5 March 2014. Brian Currie shared a paper detailing the tender evaluation process and selection of preferred bidder. It noted that the consensus of all evaluation

meetings was that all three bidders passed the pass/fail criteria. The key risk highlighted was a potential challenge to the preferred bidder appointment by an unsuccessful tenderer. A report by Sorrel Cosens provided an overview of the assessment scores and an anonymised recommendation for the preferred bidder. The scores for the three tenders were assessed as: 86.11, 87.43 and 88.08.

17.2 NHSL also received updates from Ernst & Young, MacRoberts and MM. Mr Orr, of MacRoberts, stated that the procurement process had complied with the 2012 Regulations and best practice. The processes and procedures of SFT had also been followed. In terms of a letter dated 4 March 2014, Mr Cantlay of MM advised that he believed that from a technical perspective, the evaluation had been carried out in a manner consistent with the evaluation methodology. Mr Cantlay stated that from a technical perspective, it was appropriate for NHSL to conclude the evaluation process and appoint the preferred bidder.

17.3 The minute records that Mr Cantlay stated that the scores awarded for the technical evaluation criteria seemed correct and it appeared appropriate for the preferred bidder to be appointed. Mr Cantlay is recorded as stating that "…the scores were all appropriate and he was happy with the evaluation and satisfied that the preferred bidder was in full accordance with the requirements". Mr Currie stated that all three bids had been of an acceptable quality. The minute records, at paragraph 61.16, that:

> "Everything possible had been done to mitigate the risk of poor quality facilities and/or poor services being provided to NHS Lothian."

17.4 At the meeting, the Chair sought confirmation that the price in the contract would be fixed. Mr Orr, MacRoberts, confirmed that there would be a fixed price contract in place subject to any variations or agreed increases.

17.5 The Finance and Resources Committee agreed to note the outcome of the scored evaluation and the assurance statements provided by the legal, technical and financial advisers along with the completion of the KSR (appointment of preferred bidder) by SFT. The Committee unanimously

approved the selection of IHSL as the preferred bidder.

17.6 Following authorisation by the Finance & Resources Committee, the Board of NHSL issued a preferred bidder appointment letter to IHSL on 5 March 2014 (the PBA Letter). Standstill letters were issued to the unsuccessful tenderers on 5 March 2014.

17.7 This PBA Letter states that:

a) "IHSL's Final Tender submitted on 13 January 2014, as clarified and amended by Schedule Part 5 (Clarifications in respect of IHSL's Final Tender) of the Preferred Bidder Appointment, has been evaluated as the most economically advantageous Final Tender; and

b) Subject to IHSL and each member of its consortium accepting the conditions set out in this Preferred Bidder Appointment…

the Board has approved the recommendation to appoint IHSL as the Preferred Bidder for the Project on the basis of its Final Tender…"

17.8 The PBA Letter formed the basis for the preferred bidder appointment. Schedule Part 1 (Terms of Preferred Bidder Appointment) set out the terms of IHSL's appointment as preferred bidder. The terms included the following:

- IHSL was required to use its best endeavours to diligently progress the Project to Financial Close on 2 October 2014 and thereafter use its best endeavours to achieve a completion date of 17 February 2017.
- IHSL was required to work with NHSL to develop, agree, and finalise the outstanding issues set out in Schedule Part 3 and Schedule Part 4.
- Section 4.4 of Schedule Part 1 required IHSL to develop certain technical schedules of the Final Tender NPD Project Agreement, including room data sheets. Section 4.5 states that: "IHSL shall further develop their Design included within their Final Tender to the level set out in the Invitation to Submit Final Tender (as a

minimum)."

- Schedule Part 2 (Preferred Bidder to Financial Close) set out the timetable to reach financial close of the Project.
- Schedule Part 3 (IHSL's outstanding issues to be addressed in respect of the Project) set out the issue to be resolved, including legal and contractual issues, interface issues, strategic and management issues, design and construction issues, facilities management issues and planning issues.
- Schedule Part 4 (IHSL's gaps in relation to the Final Tender (Bidder B) NPD Project Agreement) set out any gaps in this Project Agreement. This included "Schedule Part 6 (construction matters) Section 4: Project Co's Proposals" and "Schedule Part 6 (construction matters) Section 6: Room Data Sheets" to be provided by Project Co.
- Schedule Part 5 (Clarifications in respect of IHSL's Final Tender) sets out the clarifications raised by the Board in respect of IHSL's Final Tender. These clarifications clarified or amended IHSL's Final Tender.
- IHSL required to use its best endeavours to diligently develop the "IHSL technical Schedules of the Final Tender (Bidder B) NPD Project Agreement) including Schedule Part 6, section 6 (room data sheets)."

17.9 Paragraph 4.5 stated that:

> "IHSL shall further develop their Design included within their Final Tender, with the minimum level of design requirements being those set out in the ISFT."

17.10 NHSL and MM have advised the Inquiry that it is not unusual to have a number of outstanding issues, gaps and points for clarification at this stage of the procurement process.

17.11 IHSL returned a signed Preferred Bidder Letter to the Board on 7 March 2014.

From this point onwards, IHSL was the preferred bidder. However, no formal contract had been concluded for the project itself.

18. Development of design during the post-preferred bidder stage

18.1 Further design development took place from March 2014 to financial close. The first meeting between representatives of NHSL and IHSL was held on Thursday 13 March 2014. Members of NHSL's project team, NHSL's advisers and IHSL moved into project offices together to facilitate regular engagement. Wallace Whittle/TUV SUD were responsible for progressing the design of the mechanical and electrical building services, including the ventilation system. Wallace Whittle/TUV SUD were consultants subcontracted to Brookfield Multiplex, the member of IHSL's consortium responsible for the design and construction of the hospital.

18.2 A number of meeting groups were set up including the Project Delivery Group (PDG), Project Management Group (PMG), Design Steering Group and other workstreams. Attendees included representatives from NHSL, NHSL's advisers, and IHSL. Additional meetings were set up to progress different workstreams. The RHSC and DCN Steering Board Commercial Sub-Group was set up following a Special Steering Board meeting on 22 August to address slippage with the programme to financial close. Attendees included representatives from NHSL, SFT, IHSL and Scottish Government Health and Social Care Department.

18.3 Patrick MacAulay from HFS was invited, and agreed, to attend meetings with NHSL on detailed design development, specifically for the more complex departments such as theatres, radiology, critical care and emergency department.

18.4 The scope of the expected development of design had been set out in the Preferred Bidder Letter sent in March. MM later provided additional feedback on IHSL's M&E final tender in a feedback report, dated 23 May 2014. The report stated the following with respect to engineering services and ventilation

in particular:

Criteria	Feedback on IHSL's response
Engineering services design and compliance with BCRs	IHSL response was lacking detail on design philosophy and compliance with BCRs.
Temperature, ventilation and comfort of occupants	More detail required.
Quality of the environment and sick building prevention	Lacking detail description on prevention of sick building syndrome and quality of environment. Only basic statement focusing on ventilation issues provided.
An environmental conditions/room provisions matrix for both mechanical and electrical services for each room in the Facilities.	Environmental drawings provided but no matrix.
General comments	Many sections do not have detail description or explanation.

18.5 At the PSB Meeting of 20 June 2014 Brian Currie reported that "Technical schedules (Project Co proposals) development is behind programme but now well underway". Change management was discussed at this meeting. There was a distinction between design development and a change to the design. A 'Change' refers to instances where NHSL's requests for further development of the design was a change to the stated requirements to the extent that costs need to be revised. The process for dealing with a Change were set out in Schedule Part 16, "Change Protocol". The action notes of the PSB meeting record:

"The design process is logging any requested changes to the final tender

design. IHSL and NHSL then agree whether these can be classified as design development or should be treated as a change. BC hopes that the genuine changes will be small in number and value, to be confirmed after completion of design at the end of July.

…PR acknowledged that change would always be a factor at this stage in a project, and that the aim for all parties was to manage this within the cap…."

18.6 On 9 July 2014, the F&R Committee were informed that design development was progressing on target, and "An intense period of developing the detailed design of the building with staff and users is well underway, scheduled to complete by the end of July 2014."

18.7 In July and August 2014, IHSL prepared revisions of their proposal "Section 4.23 Specification – Building Services" for financial close. The document was checked by Stewart McKechnie, (Director, TUV SUD/Wallace Whittle). The only mention of the environmental matrix is in relation to lighting.

18.7.1 The majority of the information in the section on specification for ventilation systems is the same as that provided in the final tender and described in section 14 of this paper: "Submission of Final Tender": Under section 5.0 "Applicable Standards" it states:

"All elements of the works shall be in accordance with the requirements of current legislation, regulations and industry standards unless otherwise stated.

The Ventilation System shall accord with all appropriate Hospital Technical Memoranda, Codes of Practice and relevant British and European Standards…"

18.7.2 Section 6.0 on design criteria contains one difference, stating that for ventilation air change rates used in the design, it was "Project Co" (i.e. IHSL), rather than the sub-contractor, who "shall refer to the ADB sheets".

18.7.3 Section 8.1 “Background to Ventilation and Air Conditioning Installations” states:

> “The building is largely sealed with limited openable windows in order to control the internal environment within the spaces.
>
> The building ventilation is based on a mixed mode solution where it permits, utilising openable windows together with mechanical vent and a peak lop cooling solution.
>
> The Hospital shall be mechanically ventilated:-
> Throughout all internal rooms that have no access to natural ventilation
> - Perimeter areas where mechanical ventilation is required for clinical reasons
> - Perimeter areas where mechanical ventilation is required for operational and environmental control reasons…
> - Ward areas throughout
>
> The various departments to match their function shall be served by a number of ventilation air handling systems...”

18.8 U10 “Ventilation Systems: All Air Systems” states that:

> “…Areas shall be controlled in zones or as individual rooms as necessary to achieve the conditions required by the ADB Sheets.
>
> …
>
> Air pressure regimes for theatre suites shall be designed in accordance with the guidance provided in SHTM 03-1 employing wall mounted pressure stabilisers.
>
> Air volumes have been established by consideration of heat gains or losses and also the air change rate necessary for comfort and safety as appropriate for the activity carried out in each area. Relative air pressures between rooms shall be maintained to suit the activity concerned, by design of the supply and extract air volumes, and use of pressure relief

equipment where necessary to prevent cross infection or transfer of unpleasant odours between areas, as required by the ADB sheets.

…The hospital ventilation systems shall be in accordance with SHTM 03-01 Ventilation in health care premises, DW 144 and DW 143."

18.8.1 Additional information is provided in relation towards, isolation rooms and critical care departments along with some other room types, but does not go into detail regarding ventilation specifications such as air change rates. The section on critical care departments states:

"Critical care departments such as ITU/HDU shall be provided with dedicated ventilation systems.

The supply air ventilation plant shall heat and cool the air as required by the control system to provide the correct condition in the various rooms/zones.

Final temperature control to the spaces shall be achieved by terminal reheaters controlled from user adjustable sensors within each space. Heater batteries shall be located wherever possible in plant areas, but where heaters can only be provided in the ceiling void of the occupied space they shall be located away from patient occupied spaces, i.e. bed spaces.

Heat recovery shall be provided between the supply and extract systems."

18.9 A Special Steering Board meeting was held on 22 August 2014 involving NHSL, Mike Baxter from the Scottish Government Health Department, Peter Reekie from SFT and Richard Osborne and Ross Ballingall from IHSL. The purpose of the meeting was to raise NHSL's "significant concern" about the project programme and give IHSL an opportunity to discuss progress. The NHSL project team presented a revised programme with slippage of eight weeks, and IHSL tabled their own programme.

18.9.1 The production of room data sheets was discussed at the meeting. The

minutes record that:

> "…NHSL and the PB [preferred bidder] had reached agreement on the content of the room data sheets (RDS) the day before, and so the production of RDS could begin and that this was on track for completion by 05/09/14. BC noted that NHSL are comfortable that 100% will not be completed for financial close, although the prioritisation of what was definitely required was still to be agreed."

18.9.2 It is not clear to the Inquiry Team why NHSL was comfortable that all room data sheets would not be completed by financial close. Both the ITPD and the ISFT stated that the preferred bidder would be required to complete all room data sheets before financial close. It is also not clear what was agreed in relation to the content of the room data sheets. These issues will require to be explored with witnesses at the diet of hearings due to commence on 24 April 2023.

18.9.3 At the meeting, Brian Currie noted that technical information which would be captured in Project Co's Proposals – which would form part of the Project Agreement and which constituted IHSL's response to the Board's Construction Requirements and extensive design development - "are not yet completed, with some way to go in certain areas."

18.9.4 Brian Currie also noted "that in dialogue and the invitation to submit final tenders NHSL had been clear on the requirements and deliverables for the programme and that IHSL had been slow to get started." Susan Goldsmith was concerned that the updated programme "would also prove impossible to deliver."

18.9.5 Ross Ballingall of Multiplex stated that "…there was a genuine mismatch in NHSL's and IHSL's expectations, where IHSL were being asked to deliver much more than on other projects, and considerably more than was required for comfort of operational functionality.' He felt that this "demonstrated a 'paranoia and lack of trust' in IHSL."

18.9.6 Peter Reekie noted that "changes in design development would always happen, and asked if IHSL had responded with costs to progress discussions."

18.9.7 Iain Graham "noted that the revised programme proposed shows what information NHSL requires to have sufficient information to have comfort of operational functionality of the design, in order to provide the LTA with sufficient confirmation to proceed to credit."

18.10 On 25 August 2014, the register of 'Technical Risks to Financial Close' recorded as an issue:

> "Project Co proposals insufficiently developed to required level for FC".

18.11 The risk impact was rated as "high". Current mitigation measures included providing feedback on the Project Co Proposals (PCPs) structure, and draft one of the PCPs, and setting out the NHSL's expectations in a PCP workshop and setting out NHSL's expectations on individual workstreams. A proposed further mitigation post financial close was to:

> "increase the length of the RDD [Reviewable Design Data] list.
>
> Focus on specific design risks.
>
> Fast track the legal review".

18.11.1 Additional issues given a high risk impact were "lack of review time" for the PCP strategy documents and drawings. Mitigation measures were not recorded.

18.11.2 The risk register also recorded that "due to the current status of the PCPs. The RDD list could be extensive". This was classed as having a medium risk impact. In the column "potential further mitigation required post FC" it was recorded:

> "Long list of RDD due to further iterations of drawings etc. to be made etc.

Board require to both resource the requirements for review and understand the rights of comment they have within the Review Procedure (which is where RDD is reviewed). This should then mitigate risk of Project Co claiming changes."

18.11.3 RDD referred to above means "reviewable design data". Reviewable design data included design deliverables and Project Co Proposals that had not yet been approved by NHSL. A design deliverable or Project Co Proposal that was approved by NHSL was given level A status meaning construction could commence based on that design document or proposal. Level B status meant that Project Co could proceed on the basis of the document subject to comments that NHSL had made against that item. Level C status meant that Project Co could not proceed with construction in terms of that item until it had been amended in accordance with the NHSL's comments and had undergone the review procedure outlined in Schedule Part 8 of the Project Agreement. Level D status was given to items that were rejected by NHSL and required resubmission. The schedule of Reviewable Design Data was included in the Project Agreement, Schedule Part 6 (Construction Matters) Section 5 (Reviewable Design Data).

18.12 At the F&R Committee meeting of 27 August 2014 Susan Goldsmith stated that following IHSL failing to achieve the deadline for the RIE interface documentation, financial close for this project would be delayed until November 2014. The minutes record that progress would be closely monitored through monthly meetings to ensure that financial close remained on target for November 2014.

18.13 On 23 September 2014, Brian Currie emailed Susan Goldsmith and copied in Iain Graham and Moira Pringle to outline his concerns about the Project. He noted that the PCPs continue to be a struggle for IHSL. Difficulties identified included a lack of technical information and outstanding design issues. These included the extensive list of derogations. Mr Currie noted that: "There is a potential risk that under strict procurement rules this extended list could be considered so different from IHSL's tender that another bidder may challenge fairness". Mr Currie stated that the list of derogations was considerably longer

than that submitted at final tender. Mr Currie note that IHSL would not be provided all the Room Data Sheets as had been expected:

> "Operational Functionality
>
> Debate continues with IHSL over a caveat that we are insisting on given IHSL are unable to deliver all 1:50's and Room Data Sheets prior to FC as they committed to at final tender.
>
> Room Data Sheets
>
> IHSL have promised 123 RDS's (less than 50% of rooms) prior to FC. Given we will be some way short, our operational design notes will not be evidenced and hence require to be added to our BCR's as a contractual obligation.
>
> We have yet to receive IHSL's environmental matrix promised some time ago"

18.14 Mr Graham responded to this email on 24 September 2014. Mr Graham noted that IHSL had "expended their pre FC funds". He did not consider that the position would be significantly different with another bidder. Mr Graham stated that:

> "Brookfield Multiplex have maintained the 'trust us we will build what you want' and not evidenced the engagement with the NPD requirements. This is a matter of us (Brian principally) to judge the risk on the design development versus potential for delivering what we expect. It appears to me that they are commercial; have not delivered drawings and design development to programme and are introducing new items or caveats "under the radar" throughout the design development. This is either because the designers are not up to speed because they have expended fee allowances or that BM are controlling the position for commercial effect or combination of both."

18.15 A number of options, which included the option to reject IHSL as preferred bidder, were set out by Mr Graham. Mr Graham's recommendation was to "accept the position" to try to "nearly meet" the proposed programme.

18.16 During September and October 2014 IHSL submitted revisions of the Environmental Matrix. NHSL, following advice from MM, provided feedback. An issue was identified with the ventilation design for single bedrooms, specifically around their proposal of four air changes per hour, openable windows and positive pressure. It was noted that SHTM 03-01 says six air changes per hour and recommends a balanced or negative pressure regime. The development of the Environmental Matrix during this period is described in detail in the Inquiry's Provisional Position Paper 2 on the Environmental Matrix.

18.16.1 On 21 October 2014, Brian Currie reviewed IHSL's drawing showing the ventilation distribution for Department B1 where Critical Care/HDU was located. The drawing was given RDD level C status. This meant that it was "subject to amendment as noted". The drawing was included in the RDD Schedule Part 2 "Non Approved RDD Items" with detailed comments provided by NHSL, including: "Drawing significantly lacks detail in order to provide a suitable review" and: "Full design to be in line with all PCPs, BCRs, manufacturer's guidance and SHTM requirements."

18.17 On 31 October 2014 the Commercial Sub-group of the Project Steering Board discussed the programme to achieve the revised target for financial close, which was set to 12 December 2014. There was a concern that "failure to meet this third attempt at FC would make all parties look foolish," that slippage into 2015 "would cause significant problems for both the Board and IHSL" and that there was reputational risk. NHSL proposed that any further delay to financial close be "absorbed in the construction period" and discussed cost implications of the delay. NHSL raised concern that IHSL had not yet provided a full and realistic programme to the hospital opening date. The development of technical information was discussed:

> "Funders…require certainty and line drawn in the sand as technical information would surely continue to develop post-FC…
>
> … PR [Peter Reekie, SFT] asked JB [John Ballantyne, Commercial Director, IHSL] if, in his opinion the Board had changed what it is asking

for since the invitation to tender. JB replied that there was a difference of opinion over the level of detail expected in Project Co's Proposals (PCPs), but the open-ended requirement that 'the Board has to be satisfied' was difficult to achieve. JB acknowledged that the Board had agreed latitude on signing off operational functionality where 100% technical info not yet produced. Also, the Board's Construction Requirements had been updated in dialogue with IHSL, which reduced the extensive list of derogations that would be required of IHSL. These were examples of Board/IHSL negotiation to reach a pragmatic position in technical documentation for FC.

BC [Brian Currie, Project Director] noted that if the design development had generated key technical information for review earlier in the process then areas of challenge… could have been addressed and resolved earlier. JB noted that sign-off of the 1:50 design buy [sic] the Board had delayed the programme; BC acknowledged this, but that this could only account for two weeks of slippage and all had previously agreed that this particular activity has gone well. The production of the supporting architectural and engineering information has not been as successful...

…

SF [Sean Ferm, Commercial Manager, Macquarie Capital Group Ltd] confirmed that most PCPs [Project Co Proposals] had been issued to the LTA, with the exception of civil and structural, BREEAM, and acoustics. JB pointed out that the deadline to close PCPs had been 31/10/14 and that they were unlikely to meet this by the end of the day. BC confirmed that the Board has some technical queries outstanding on PCPs but have advised that these should not be material and therefore should not delay issue to the LTA. PR advised the Board and IHSL to resolve these issues or to ensure that they were captured as reviewable design data post-FC. BC undertook to review the Board's outstanding PCP queries with their technical adviser and collate any such non-material issues into a schedule to be addressed post-FC.

The final list of derogations from the BCRs to be provided by IHSL later

that day; the Board will review and respond to these on 03/11/14.

BC noted that while drawings feedback had been provided, IHSL had challenged some of these and the Board had met with them to discuss and confirm the position. All outstanding drawings comments are to be issued by the Board on 03/11/14. It was noted that IHSL may want to meet to confirm some of these before they were fully concluded, and this would need to be prioritised in w/c 03/11/14.

Conclusion of the energy strategy requires a meeting between the Board and IHSL as soon as possible in the w/c 03/11/14.

…

The group agreed that, regardless of the FC date, IHSL and the Board should proceed to agree finalised technical documentation by 12/11/14 at the latest."

18.18 The F&R Committee was updated on the programme to financial close at their meeting on 12 November 2014. Brian Currie and Iain Graham prepared a paper explaining the factors affecting the programme. These included technical issues, issues with CapEx (capital expenditure), as well as revenue consequences for Facilities Management and Life Cycle maintenance, the funder (the European Investment Bank) and Consort interface. With respect to technical issues the paper noted, "the production of the necessary legal documentation (Project Company Proposals or PCPs) and plans have been slower than necessary to avoid impacting on the critical path."

18.18.1 With respect to key risks, the paper noted:

- "The IHSL consortium members have both a cost and reputational imperative to see early Financial Close. However, the terms have to be acceptable.

- It is the Project Directors view that FC will not be achievable before February, 2015 and that there is limited scope to shorten the construction programme without significant risk to quality. As such,

an operational date in September, 2017 should be anticipated at best.

- It is also hoped that the reasons for the slippage in programme to conclude FC is not repeated post FC. These are principally:

  1. Lack of appreciation and experience of the process to FC by the constructor element of the Preferred Bidder
  2. A "design [and] build" mentality prevailing by the constructor i.e.., determination to keep design intent as open as possible to maximise commercial advantage post FC.
  3. Poor management by the Preferred Bidder.

- Mitigation measures include seeking a compensating shortening of construction programme; removal of an inflationary uplift due to the period of time since tender."

18.19 The paper was discussed at the F&R Committee meeting on 12 November 2014. The Committee "expressed disappointment and concern at the delays" and the Chair "commented that the Committee was not reassured by the process and it would be important to demonstrate that risk management was in place before the Committee could be reassured." Brian Currie advised that "NHS Lothian was managing the project as best as it could but that many of the present issues were outwith NHS Lothian's control…NHS Lothian's legal adviser had stated that NHS Lothian was going above and beyond what they were legally required to do in order to expedite the process." The Committee agreed to note the financial close programme and the governance in place to support NHSL's requirements.

18.20 By 18 November 2014, the risk register recorded that "Programme delay in reaching Financial Close" was "red". The programme was delayed due to delayed delivery of detailed design "sufficient to proceed to financial close". The "Adequacy of controls to minimise risk and achieve programme" were recorded as:

"**Not satisfactory at present**

…Close management of progress ongoing, including engagement at most senior level in IHSL by Steering Board Commercial sub-group…"

18.20.1 Performance of Building (described as "Building does not operate to specification…") was noted to be "Green". The risk register recorded that:

"Board requirements stated clearly in procurement documentation and competitive dialogue"

18.20.2 The risk register recorded that the risk of Scottish Government approval was "green". There was a £50 million contingent liability at final business case should the project not proceed. Despite the green rating, the comment was:

"**Not satisfactory at present**; FBC presented to SCIG on 05/08/14 and considered 26/08/14…"

18.21 On 18 November 2014, NHSL prepared a paper entitled "Board Commentary on the Technical Information Requested by the Board and Technical Information issued by IHSL". The paper records that notwithstanding the requirement in the ISFT for the preferred bidder to complete all room data sheets by financial close, NHSL had agreed to reduce this to approximately 40% of rooms. NHSL also agreed to suspend the development of 'Project Co Proposals' and create an additional category of RDD. The paper noted that the quality of information submitted by IHSL was "not in line with the level expected". The paper concluded that:

- "The level of information requested by the Board and accepted by IHSL has been clearly documented;
- The level of information requested is considered reasonable and in line with other projects;
- The Preferred Bidder has been late in providing information at each stage;
- The quality of the information submitted has not been in line with the

level expected."

18.22 The Inquiry Team understands that on 19 November 2014, a HAI-Scribe (Healthcare Associated Infection - Systems for the Controlling Risk in the Built Environment) report identified a risk with the ventilation system, specifically due to air pressure in single bedrooms. On 12 January 2015, TUV SUD/ Wallace Whittle submitted a revised single bedroom ventilation strategy. On 13 January 2015, Janette Richards, NHSL's lead HAISCRIBE Infection Prevention and Control Nurse, consulted Ian Stewart (Consultant within HFS' Engineering and Environment department) regarding IHSL's strategy. Ms Richards was concerned that IHSL's proposal for openable windows would affect the pressure regime in the room and have implications for infection control. HFS advised against the use of openable windows in the design, and recommended sealed windows which would allow air flow patterns to be controlled. On 29 January 2015, NHSL advised IHSL that:

- "The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.
- The design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice.
- The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor.
- Isolation room ventilation shall comply with SHPN 04 Supplement 1."

18.23 The discussion between relevant parties regarding the perceived issues with TUV SUD/Wallace Whittle's ventilation strategy for single bedrooms is described in further detail in the Inquiry's Provisional Position Paper 2 on the Environmental Matrix.

18.24 According to a document entitled 'Design risks to the Board at Financial Close', the risks at 28 January 2015 included ventilation. The issue is not described, but it is given a 'high' risk impact. The current mitigation measures

were stated to be:

- "The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.
- The design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice.
- The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor.
- Isolation room ventilation shall comply with SHPN 04 Supplement 1."

18.25 The final position was stated as "TBC". No person was specified as being responsible for the closure of this risk.

18.26 The document contained an entry for "Design" where the issue was stated to be "Review of RDS content". The risk impact was stated to be "closed". The comment given was "RDS have been submitted for Board Review". No details are provided in relation to the review procedure or whether the room data sheets were deemed acceptable to NHSL. The final position was stated as "TBC" notwithstanding the fact that the Risk Impact was described as "closed".

18.27 The document contained a further entry for "Design" where the issue was stated to be "RDS omitted by Project Co at FC". The risk impact was stated to be "closed". The comment given was "Board reviewing operational design notes to confirm if there are gaps for the omitted RDS". The Final Position was stated as "TBC".

18.28 A document titled 'Technical Risks to the Board at Financial Close', dated 30 January 2015 listed "…the principal high, medium and low technical risks…" for the project. It highlights a number of risks related to the unexpected and 'significant' quantity of RDD."

18.28.1 One of the highlighted risks was "Less well defined proposals, therefore less certainty by the Board. Lack of design". The mitigation measures employed

up to financial close were "IHSL pushed very hard to achieve maximum information during PB stage. Further developed RDD schedule for Board".

18.28.2 Another risk arising from the significant quantity of RDD was that "Board may not be able to respond in the allocated 15 days. Therefore the RDD item is deemed accepted." The mitigation measures employed up to financial close were stated to be "Informal non-contractual design review meetings being held with IHSL. Process confirmed in Part 3 of Section 5 of Schedule Part 6 limiting Project Co's ability to add RDD items with less than 4 weeks notice." as well as "Internal resourcing/management meetings ongoing." Required mitigation measures post financial close include, "The Board and Motts to resource RDD appropriately." and "Manage Project Co's rolling programme in accordance with Part 3 of Section 5 of Schedule Part 6."

18.28.3 The document did not state whether the risks set out were high, medium or low.

18.29 A risk register report was shared with the PSB for its meeting on 30 January 2015. The risk register report does not mention the RDD items recorded in the document "technical risks to the Board at Financial Close" or the ventilation item recorded in the document "design risks to the Board at Financial Close" as risks. The risk register report contains an item nine 'Specification Changes post Financial Close' with the description: "Programme is delayed due to Board changing service and accommodation requirements." Risk 25 and 45 are identical and relate to "service change", specifically: "Planned function of a room/area becomes obsolete or priorities change due to changes in practice/advances in technology and requires updating before opening". The controls in place for all three items included putting in place governance structures to manage the approval of change.

18.30 The risk register noted "programme delay in reaching Financial Close" as an amber risk. The controls in place included "Rigorous and resourced user group engagement and technical adviser input to progress detailed design and technical schedules…" The adequacy of the controls to minimise and achieve programme were described as:

"Not satisfactory at present…"

18.31 It is not clear to the Inquiry Team why the risk status had reduced given that the controls in place were still deemed to be unsatisfactory. This will require to be explored with witnesses at the diet of hearings commencing on 24 April 2023.

18.32 At the PSB meeting on 30 January 2015 Brian Currie introduced the risk report. He noted that "post-FC change would be inevitable", that any changes would have cost and revenue implications, would lead to delay, and that "a governance process to manage the impact is required." The decision-making process for dealing with change was discussed. NHSL were working towards completion on 5 February 2015. Mr Currie noted that there was a requirement for the contract to be signed by 13 February 2015 due to the project sponsor's leave.

18.33 By financial close ~~the issues that had been identified with the Environmental Matrix and TUV SUD/Wallace Whittle's design for single bedroom ventilation were not resolved.~~ r~~R~~oom data sheets were incomplete, although draft room data sheets for generic and key rooms had been prepared. The ventilation specifications outlined in the Environmental Matrix as well as the Room Data sheets for Department B1 (Critical Care, HDU, Neonatal Surgery) were potentially inconsistent with SHTM 03-01~~, but this had not been identified by MM, NHSL or IHSL~~. This and other potential inconsistencies are described in further detail in the Inquiry's Provisional Position Paper 2 on the Environmental Matrix.

The Room Data Sheets produced were reviewed by the Board and their advisors prior to Financial Close

18.34 Room data sheets were included in Part 3 of Section 5 (Reviewable Design Data) and Schedule Part 6 (Construction Matters) of the Project Agreement (RDD Schedule). Part 3 included "Reviewable Design Data not provided to the Board nor approved by the Board at Financial Close" and was subject to the Review Procedure in Schedule Part 8 of the Project Agreement, "before such Reviewable Design Data is incorporated into the Facilities and/or the Site by Project Co". Furthermore, according to Part 3 of the RDD Schedule:

"Following the date of this Agreement:

- Project Co shall submit a programme of issue dates for Reviewable Design Data set out in this Part 3;
- Project Co shall ensure that such programme shall show the items of Reviewable Design Data forecast to be submitted to the Board within the next 3 months;

- Project Co shall revise and reissue the programme on a monthly basis so as to maintain a rolling 3 month look ahead from each date of issue Project Co recognises this aspect of the Reviewable Design Data process is still to be agreed and further acknowledges the practicalities for the Board co-ordinating and undertaking the reviews of Reviewable Design Data. Project Co shall ensure that no changes to the first month of each revised 3 month programme shall be made without the prior approval of the Board, and the Board shall approve or reject any Project Co proposal for such a change within 5 Business Days of receipt of the Project Co proposal, failing which the Board shall be deemed to have approved the change.

  Project Co shall take reasonable endeavours to sequence the release of information in a manner so as to mitigate the volume of parallel reviews required to be undertaken by the Board pursuant to the Review Procedure."

18.34.1 Also included in Part 3 of the RDD schedule were ventilation drawings: "1:200 Primary distribution for all areas indicating main distribution routes and plant locations with respect to…ventilation" and "1:50 Detail layouts for all areas for… ventilation", described previously.

18.34.2 The Environmental Matrix and Schedule of Accommodation were included in Part 4 of the RDD Schedule, which contained "Non-Approved Project Co's Proposals Design Data comments". They were subject to the review procedure under Schedule Part 8 of the Project Agreement. In relation to the Environmental Matrix, a number of Board comments were set out. These included a comment noting that a detailed proposal was awaited on bedroom

ventilation to achieve balanced/negative pressure relative to corridor.

18.34.3 Part 4 of the RDD Schedule stated that:

> "If Project Co considers that the comments below on any of the items listed in this Part 4 amount to a Change, Project Co shall, before complying with the comments and resubmitting the Endorsed RDD, notify the Board of the same and, if it is agreed by the parties or determined pursuant to Schedule Part 20 (Dispute Resolution Procedure) that a Change would arise if the comments were complied with, the Board may, if it wishes, implement the Change and it shall be dealt with in accordance with Schedule Part 16 (Change Protocol)."

18.34.4 Part 4 contained a table which included a number of comments, the details of which are described in the Inquiry's Provisional Position Paper 2 on the Environmental Matrix.

18.34.5 Part 1 of the RDD Schedule contained "endorsed" RDD items that had been given Level A or Level B status, meaning that they could proceed subject to comments NHSL had made against each item. No items related to ventilation were included in Part 1.

18.34.6 As noted previously, IHSL's ventilation strategy drawings were included in Part 2 of the RDD schedule, which included "Non-Approved RDD Items" that had received Level C or Level D at financial close, meaning that Project Co could not proceed with construction in terms of that item until NHSL's comments had been incorporated and the drawing submitted to NHSL through the review procedure outlined in Schedule Part 8.

19. Full Business Case

19.1 The Full Business Case (FBC) required to be approved by both NHSL and the Scottish Government in order for the Project to achieve funding.

19.2 The purpose of the FBC is to:

- "identify the 'market place opportunity' which offers optimum Value for Money
- set out the negotiated commercial and contractual arrangements for the deal
- demonstrate that it is 'unequivocally' affordable
- put in place the detailed management arrangements for the successful delivery of the scheme"

19.3 The FBC includes:

- "Strategic Case: Strategic Case confirmed/updated
- Economic Case confirmed or updated
- Commercial Case:
  - Detail each procurement selection process
  - Confirm scope of procured works & services
  - Confirm main contractual arrangements
- Financial Case
  - Confirm financial implications of project and project & affordability
  - Stakeholder sign-off
- Management Case:
  - Confirm details of management arrangements outlined in OBC to demonstrate that organisation is ready & capable of proceeding to contract award & implementation"

19.4 According to the Scottish Capital Investment Manual NPD Guide Section 2: OJEU to Contract Award, the following commitments are expected at the end of the preparation of the FBC:

State of contract discussions at end of stage:	Fully developed contract drafts
Designer:	1:200 plans with key departments at 1:50
Design and construct sub-contractor, services sub-contractor and bidding consortium:	Final sign-off on draft contract, payment mechanism, performance regime and allocation of risks within consortium

Financial and Economic Standing/Funding:	Due diligence commences prior to submission of Full Business Case

19.5 Paragraph 7.9 states that:

> "It is expected that while the FBC is being considered for approval, the NHSScotland body and private sector partner will continue to work up the detailed contractual documentation and that due diligence on behalf of the financiers will be continuing. NHS bodies will be required to demonstrate that schemes are sufficiently close to financial close before FBC approval will be given."

19.6 The FBC was circulated in advance of the meeting of the Finance and Resources Committee on 9 July 2014. At the meeting, the committee agreed to approve the submission of the FBC with the recommendation that it would proceed to the Capital Investment Group of the Scottish Government Health and Social Care Directorate. SFT.

19.7 Version 1 of the FBC was approved by the Board of NHSL on 6 August 2014. The Capital Investment Group (CIG) was due to consider the FBC at their meeting on 26 August 2014.

19.8 The strategic context set out in the FBC had not changed since the Outline Business Case. The expected benefits of the new hospital included a reduction in healthcare associated infection through modern design, particularly single rooms with en-suite accommodation (paragraph 2.10.2). The FBC stated that design risk for the Project was allocated to Project Co and not NHSL (paragraph 4.1.3):

> "1) Design risk sits with Project Co, subject to the Project Agreement (Clause 12.5) and agreed derogations identified within the Board's Construction Requirements."

19.9 The FBC included the letters from MacRoberts and MM in relation to the conduct of the procurement exercise. The report by Ernst and Young was also included.

19.10 Paragraph 6.4.1 stated that:

> "Commissioning arrangements are outlined in the Project Agreement with IHSL, to ensure all aspects of construction conform to the relevant standards and comply with contractual requirements"

19.11 Paragraph 6.6 addressed risk management. Programme delay in reaching financial close was the only risk highlighted as red. No risks in relation to the design of key building systems, including the ventilation system, were recorded in this section of the FBC.

19.12 The FBC stated that the hospital was scheduled to open on 15 May 2017.

19.13 The Inquiry Team has been advised by NHSL that the process for approval of an FBC requires NHSL to submit the FBC several weeks in advance of the CIG meeting. The FBC is then circulated to members for review and comment. Questions from members are collated and sent back to NHSL, usually the week before the meeting. NHSL would then seek to respond to each question raised. This is not a resubmission of the FBC, but a process of clarification in response to specific points raised by members of the CIG.

19.14 For the Project, correspondence indicates that comments from the CIG members were passed to NHSL on 20 August 2014, and NHSL responded to those comments on 25 August 2014. None of the comments related to mechanical and electrical engineering..

19.15 The CIG meeting to discuss the FBC, including the points of clarification, took place on 26 August 2014. According to the minutes, the FBC for the RHCYP/DCN "was not approved at the meeting due to a number of outstanding comments." The comments that followed related to costs and unutilised space. The minutes then state, "Formal approval of this project to follow once queries had been resolved."

19.16 According to action notes of the PSB meeting held on 30 January 2015, "Finalisation of the financial model on 02/02/15 will trigger FBC approval by SGHSCD and key stage review completion by SFT – both are needed for financial close, and therefore critical to be completed by 04/02/15."

19.17 Funders required a letter confirming that the Scottish Government had agreed an award of revenue funding. SFT have advised the Inquiry Team that such a letter is a normal condition precedent set by funders to reach financial close. On 6 and 7 February 2015, Alan Morrison (Health Finance, SGHSCD), Iain Graham (Director of Capital Planning and Projects, NHS Lothian), Kerry Alexander (NPD Programme Director, SFT) and Andrew Orr (legal adviser, MacRoberts) discussed the content of the letter. At this point, the Pre-Financial Close Key Stage Review had not yet been completed, and the FBC had not yet been approved.

19.18 Mr Orr advised that if the letter stated that SG's approval of revenue funding "is subject to all issues highlighted in the Key Stage Review being satisfactorily concluded", funders would need something showing that these issues had been concluded. Mr Graham, was concerned to "get the balance right" in this letter by confirming approval of funding while not raising further questions about the Key Stage Review. Mr Graham suggested to use the wording "We will separately confirm the requirements for the Board to ensure satisfactorily conclusion of the Key Stage Review".

19.19 In terms of a letter dated 10 February 2015, Paul Gray (Director General for Health and Social Care at the Scottish Government) confirmed that the CIG had considered the FBC and had agreed an award of funding for the Project, and that "We will separately confirm the requirements for the Board to ensure satisfactorily conclusion of the Pre Financial Close Key Stage Review."

20. Key Stage Review 4: Pre-Financial Close

20.1 The Pre-Financial Close KSR was completed on 11 February 2015.

20.2 The KSR could only be completed once some issues in relation to ESA10 were resolved. Ernst & Young produced a report for the Board to satisfy SFT. Brian Currie commented on an earlier draft of the KSR and advised SFT that it was generally an accurate record of the project's status subject to some minor comments being provided.

20.3 Within the Key Stage Review report, under "Section 3: Project requirements" the following questions are asked:

> "Question 2: Is the Procuring Authority satisfied that the preferred bidder's solution satisfies its operational and functional requirements and delivers the project objectives, benefits and outcomes?"
>
> The answer provided was: "yes."
>
> The following comment was included in the KSR:
>
> "The detail of the design has been discussed with user groups to ensure clinical support and the Board confirms that it has received appropriate internal sign off
>
> "Question 3: Please confirm the status of the technical documentation (i.e. design, construction and FM requirements). Is the Procuring Authority, and are its advisers, satisfied that further development/document production (if any) is achievable within the current project timetable?"
>
> The answer should have been answered with either "yes" or "no". The relevant box is left blank. The following comment was included in the KSR:
>
> "The Board has confirmed that the technical documentation is at a level of development consistent with the current stage of the Preferred Bidder to Financial Close programme. The Board advises that they are content with the documentation subject to further development through RDD following

Financial Close and that the construction proposals are of sufficient detail to provide sufficient certainty to the Board as to what is to be provided and to permit a timely start on site. The Board has also confirmed that the FM Service Level Specification is agreed and that the FM Method Statements have been completed and agreed."

20.4 It is not clear to the Inquiry Team why this statement was made. By financial close, the preferred bidder should have produced room data sheets for every room in the hospital. It is not clear why this requirement was waived by NHSL. This issue will need to be explored with witnesses at the hearing diet that commences on 24 April 2023.

20.5 SFT has advised the Inquiry Team that it did not undertake a design or technical assurance role and this element of the KSR was intended to prompt NHSL to reflect, with its advisers as necessary, on the stage of development of the technical solution and documentation at this critical stage.

20.6 NHSL has advised the Inquiry Team that they provided the above affirmative answers based on letters of support from its legal, financial and technical advisers.

21. Financial Close

21.1 Financial close is the end point of procurement when contracts are signed. After financial close, NHSL required to start making payments and construction could begin.

21.2 The target date for financial close was 3 October 2014 at tender stage. Financial close took place on 12 to 13 February 2015.

21.3 On 21 January 2015, in accordance with the minute of the Board of NHSL dated 6th August 2014, the Finance and Resources Committee formally resolved to delegate authority to the Chief Executive or Director of Finance of the Board of NHSL to approve the final terms of the NPD Project Agreement subject to:

"(a) the approval of the final business case for the Project by the Scottish Government; and

(b) the first full year Annual Service Payment at financial year 2014 prices not exceeding £17 million (excluding the effect of any movement in interest rates between now and financial close)."

21.4 Upon approval of those terms, there was formal authority to approve, sign, seal, execute, deliver and/or initial (as required) the documents required to reach financial close of the project.

21.5 Contract documents including the project agreement and all of the contracts setting out the financial arrangements, were signed on 13 February 2015 and 14 February 2015, marking financial close. After this date the Board began making payments to IHSL and IHSL required to commence construction.

22. Business Case Addendum

22.1 An addendum to a FBC can be required if there have been key movements in any material information about the project between FBC approval and contract signature. It is a practical process by which the financial position as identified in the FBC is updated. It does not require further consideration and/or recommendation by the CIG and the addendum is not referred for approval to the DGHSC.

22.2 An addendum to the FBC was approved by the NHSL on 1 April 2015. It was submitted to CIG on 7 April 2015, for noting. This was after the contract was signed and financial close had taken place.

22.3 The addendum notes that the project proceeded to financial close having adopted the contractual adjustments recommended by SFT to address the ESA 2010 accounting treatment to remain off balance sheet. ESA10 refers to the European System of National and Regional Accounts, new rules of which had implications for the accounting treatment of projects procured under the NPD model. Changes were made to the role of the public sector director with the introduction of an independent expert. The amendment was principally to

the articles of association of the SPV with consequential minor changes in the Project Agreement. There was no change in the strategic case or the economic case for the Project as set out in the FBC. The financing arrangements are addressed in the addendum. Completion and handover of the new hospital was estimated at 25 July 2017 with the hospital due to open on 16 September 2017.

23. Provisional Conclusions

23.1 As outlined at the start, this paper seeks to set out the Inquiry Team's current understanding of the procurement process for the project. It is provisional in nature. The paper does not constitute any findings of the Chair of the Inquiry. It is open to any CP to seek to correct and/or contradict the contents of the paper. However, unless that is done, in addition to such other findings in fact that Counsel considers appropriate, the Chair is likely to be invited by Counsel to the Inquiry to make the following findings in fact at the conclusion of the hearing diet scheduled for April 2023.

23.1.1 NHSL conducted market testing prior to the commencement of the procurement exercise.

23.1.2 NHSL was satisfied that there was sufficient interest in the market for a new hospital that was to be funded by way of a NPD funding model.

23.1.3 The procurement exercise required to comply with the 2012 Regulations.

23.1.4 NHSL was the contracting authority for the purposes of the 2012 Regulations and had overall responsibility for the conduct of the procurement exercise and the content of documentation issued to prospective tenderers.

23.1.5 NHSL was assisted by technical advisers, including MM, in the production of the tender documents.

23.1.6 HFS was not called upon to advise on, or review, technical information related to the requirements of the ventilation system proposed for the new hospital prior to a preferred bidder being identified by NHSL.

23.1.7 SFT provided assistance to NHSL during the procurement process. Their role involved providing advice on the NPD procurement process and an 'oversight' role.

23.1.8 Concerns were raised by the Scottish Government as to whether it was appropriate for SFT to have this dual role. However, the procurement proceeded with SFT adopting this dual role.

23.1.9 The contract opportunity constituted a "particularly complex contract" for the purposes of the 2012 Regulations and NHSL was entitled to adopt the competitive dialogue procedure.

23.1.10 Three entities were invited to participate in dialogue. They were issued with the ITPD.

23.1.11 The ITPD followed the structure recommended by the SCIM.

23.1.12 The ITPD set out NHSL's requirements, including the technical requirements for the ventilation system, and the procedure for assessment of tenders.

23.1.13 The assessment criteria adopted by NHSL was the "most economically advantageous tender". The assessment was based on an assessment of price and quality. There was a 60/40 split in terms of price and quality.

23.1.14 A number of technical requirements were assessed on a pass/fail basis. The remainder were scored as part of the 40% weighting accorded to quality.

23.1.15 The available marks for mechanical and electrical engineering proposals were less than those available for interior design and architectural and landscaping design.

23.1.16 The competitive dialogue procedure involved a series of discussions taking place with prospective tenderers before tenderers were invited to submit final tenders.

23.1.17 During the competitive dialogue phase, NHSL required to clarify what it

meant by 'Operational Functionality'.

23.1.18 The project was assessed at various stages of the procurement process by way of 'Key Stage Reviews' (KSR). KSR were carried out by SFT.

23.1.19 KSR were aimed at ensuring the financial viability of the project. While technical issues were touched on in the KSR, it was not the purpose of the KSR process to undertake a detailed technical review of the specifications for the building systems in the new hospital.

23.1.20 NHSL and SFT had a desire to keep the procurement process as short as was reasonably practical.

23.1.21 NHSL utilised a reference design approach. This was made clear to prospective tenderers in the procurement documents including the ITPD and the ISFT.

23.1.22 CEL 19 (2010) made it a mandatory requirement for all NHS Bodies in Scotland engaged in the procurement of both new-build and refurbishment of healthcare buildings to use and properly utilise the England Department of Health's Activity DataBase (ADB) as an appropriate tool for briefing, design and commissioning.

23.1.23 If ADB was deemed inappropriate for a particular project and an alternative tool or approach is used, the responsibility is placed upon the NHS Body to demonstrate that the alternative is of equal quality and value in its application.

23.1.24 NHSL did not produce ADB room data sheets and issue them to prospective tenderers.

23.1.25 An Environmental Matrix was produced which sought to set out NHSL's technical requirements for the ventilation system.

23.1.26 Prospective tenderers required to submit some room data sheets as part of their tender. These were for key and generic rooms.

23.1.27 Both the ITPD and the ISFT stated that the entity appointed as preferred bidder would require to develop room data sheets for all spaces in the hospital before financial close.

23.1.28 ITPD Volume 1, Section 2.5.3 stated that tenderers were required to use the Environmental Matrix, and other 'Room Information' documents, to form the basis of Room Data Sheet production.

23.1.29 IDTP, Volume 3, Section 2.3 required tenderers to comply with SHTMs unless the Board had expressed elsewhere in the Board's Construction Requirements, a specific and different requirement.

ITPD Volume 4 included the Reference Design and design documents produced by Hulley and Kirkwood. These documents required tenderers to comply with the 2010 version of Section 6 of the Building Regulations and advised the RHSC/DCN building could meet the CO2 emission reduction requirements set out in Section 6 Energy of the 2010 Scottish Building Regulations by adopting the ventilation solutions as aligned to the RHSC-DCN Environmental Matrix. A thermal comfort analysis produced by Hulley and Kirkwood was also provided to tenderers as part of Volume 4 which indicated that the internal temperatures could be achieved with 4ACH

~~23.1.30 There was a lack of clarity in the procurement documents in relation to (i) the purpose of the Environmental Matrix; and (ii) whether compliance with the Environmental Matrix was mandatory~~

23.1.31 Following the close of competitive dialogue, three tenders were submitted. These included tenders by IHSL and Mosaic.

23.1.32 All three tenders were assessed as valid tenders that complied with all the technical requirements set by NHSL.

23.1.33 IHSL stated in its tender submission that its technical solution complied with SHTMs, HBNs and HTMs.

23.1.34 IHSL did not propose any changes to the Environmental Matrix.

23.1.35 One tenderer (Bidder C/Mosaic) did propose changes to the Environmental Matrix including to air changes per hour in critical care rooms. The air change rates for single bed cubicles and open plan bays were changed from 4 to 10 air changes per hour for the Critical Care department

23.1.36 Bidder C had stated during competitive dialogue that it would make changes to the Reference Design in a variety of situations, including where there was non-compliance with relevant design guidance.

23.1.37 Both IHSL's tender and Mosaic's tender were assessed by NHSL as complying with NHSL's published requirements. This assessment was made notwithstanding the fact that IHSL and Bidder C/Mosaic were offering to provide different technical requirements in terms of the Environmental Matrices submitted.

23.1.38 Given the disconnect between the values in the Environmental matrix (issued with the ITPD) and SHTM03-01, it is not clear why IHSL's tender was deemed by NHSL to comply with the published requirements

23.1.39 The assessment panel noted that IHSL's tender:

"lacked detail on design philosophy and BCR compliance".

Bid Submission requirement C8.3 stated that "*Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an acceptance basis.*" IHSL did not provide an a marked up environmental matrix, but in their submission had noted that "*no changes proposed at this time nor envisaged in the future.*" The Reviewers concluded that the brief had been achieved. The assessment panel commented: "*Good response.*"

MM commented on IHSL's bid submission noting that IHSL had adopted the Reference Design and accepted compliance with the Board's requirements. MM noted that as IHS Proposals are compliant with a [sic] mandatory reference design requirements, they assumed all derogations which would have been required in construction of the reference design would be acceptable to NHSL.

23.1.40 The Pre-Preferred Bidder KSR recorded (in section 2, Question 3) that:

> "The Board has confirmed that all bidders have provided detailed programmes to cover the activities for the period until FC and that the development of the technical information is at least as advanced as the Board anticipated at this stage. The Board and its advisers are satisfied that any further development of technical information from PB appointment to FC is achievable within the current project timetable"

23.1.41 A risk register was set out in Annex B of the Pre-Preferred Bidder KSR. It noted “Programme delay in reaching Financial Close” as a “red” risk. The risk register recorded that “Adequacy of Controls” was “Not satisfactory at present”.

23.1.42 IHSL’s tender was assessed as the most economically advantageous tender.

23.1.43 MacRoberts advised NHSL that the procurement process had complied with the 2012 Regulations and best practice.

23.1.44 SFT confirmed to NHSL that the processes and procedures of SFT had been followed.

23.1.45 MM advised NHSL that from a technical perspective the evaluation had been carried out in a manner consistent with the evaluation methodology. Accordingly, it was appropriate for NHSL to conclude the evaluation process and appoint the preferred bidder.

23.1.46 The advice of MM, MacRoberts and SFT was relied on by the Finance and Resources Committee of NHSL in determining to recommend that IHSL be appointed as preferred bidder.

23.1.47 IHSL was appointed as preferred bidder.

23.1.48 In the period from the appointment of IHSL as preferred bidder to financial close, NHSL agreed to waive the requirement (stated in both the ITPD and ISFT) that room data sheets for all spaces in the hospital would be

completed by financial close.

23.1.49 By financial close, IHSL had completed room data sheets for less than half the spaces in the hospital.

23.1.50 The draft project agreement contained a concept of “reviewable design data”. Technical issues not agreed by financial close became “reviewable design data” under the project agreement.

At Financial Close, the inputs for the Energy Model produced for the Project noted "Mixed Mode", 4 Mechanical AC, for Bedrooms

23.1.51 Prior to a contract being signed between NHSL and IHSL, ~~a dispute arose in relation~~the parties discussed and agreed NHSL's requirements in relation to ~~to~~ air change rates, and pressure regimes, in ~~certain~~ bedrooms

23.1.52 Discussions took place between NHSL, MM and IHSL in relation to the issues concerning environmental parameters in certain bedrooms. IHSL made it clear to NHSL that its proposal for ventilation was "mixed mode" and that supply to bedrooms was 4AC/hr~~relied on natural ventilation for certain spaces in the hospital~~.

23.1.53 No issues were escalated by NHSL to the Scottish Government in relation to the proposed ventilation system for the new hospital before financial close.

23.1.54 Prior to the conclusion of the contract, no issues were raised by NHSL or MM in relation to the requirements of the ventilation system for critical care areas proposed by NHSL.

23.1.55 Question 3 of the Pre-financial close KSR was in the following terms:

“Please confirm the status of the technical documentation (i.e. design,

construction and FM requirements). Is the Procuring Authority, and are its advisers, satisfied that further development/document production (if any) is achievable within the current project timetable?"

23.1.56 The answer should have been answered with either "yes" or "no". The relevant box was left blank. The following comment was included in the KSR:

"The Board has confirmed that the technical documentation is at a level of development consistent with the current stage of the Preferred Bidder to Financial Close programme. The Board advises that they are content with the documentation subject to further development through RDD following Financial Close and that the construction proposals are of sufficient detail to provide sufficient certainty to the Board as to what is to be provided and to permit a timely start on site. The Board has also confirmed that the FM Service Level Specification is agreed and that the FM Method Statements have been completed and agreed."

23.1.57 As at August 2014, NHSL had concerns about the project programme.

23.1.58 As at November 2014, NHSL had concerns about the quality of the information provided by IHSL in relation to the Project.

23.1.59 Prior to signing any contract with IHSL, NHSL was aware that there was significantly more "reviewable design data" than had originally been planned for the Project.

23.1.60 A contract was concluded between NHSL and IHSL, and financial close achieved, in February 2015.

23.1.61 NHSL entered into a contract with IHSL which stipulated that the environmental matrix would be "Reviewable Design Data" under the contract. ~~Therefore, the precise parameters for the ventilation system would be worked out after the contract was concluded~~. NHSL's comments on the Environmental Matrix at Financial Close were recorded in Section 5 of Schedule Part 6 of the Project Agreement. No comments were made in relation to the Air Change Regime in the Bedrooms

The Environmental Matrix was incorporated into the Project Agreement as part of the Room Data Sheets. It was stated to be in the Agreed Form and was defined in the Board's Construction Requirements as setting out the environmental condition requirements of the Board required within each department / unit / space / area.

The contract between NHSL and IHSL required IHSL to comply with the Room Data Sheets and Environmental Matrix as part of the Completion Criteria for the Project

SCOTTISH
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INQUIRY

1 Introduction

1.1 The following is a response by Multiplex Construction Europe Limited ("**Multiplex**") to Provisional Position Paper 4, titled: *"Draft Provisional Position Paper on the Project Agreement*" issued by the Inquiry by e-mail dated 8 February 2023 (timed at 10.12) ("PP4").

1.2 Multiplex note the terms of the e-mail issuing PP4 and the terms of PP4 itself, where the Inquiry invites further information, clarification, challenge or comments in relation to any of the matters covered in the paper. Multiplex is grateful for this opportunity and at this stage, to assist the Inquiry Multiplex would make the following submissions.

1.3 Having regard to paragraph 4 of PP4 and Section 2(1) of the Inquiries Act 2005, Multiplex's position set out in this Response is provided solely to assist the Inquiry understand the Project Agreement and is without prejudice to and under reservation of any further submissions Multiplex may make or evidence it may lead in any forum concerning the Project Agreement.

1.4 For completeness and given the degree of overlap between the three provisional position papers the Inquiry has previously issued, Multiplex attach to this Response copies of its responses to each of PP1, PP2 and PP3.

2 Definition of defective works

2.1 Multiplex considers that paragraph 7 of PP4 contradicts paragraph 4 of PP4.

2.2 Paragraph 4 of PP4 states as follows (with which Multiplex is in agreement):

"*It is no part of the Inquiry's function to rule on any person's civil liability (section 2(1) of the Inquiries Act 2005): that is a matter for the courts. The Inquiry's purpose in setting out the terms of the Project Agreement is not therefore to lead up to any determination about the correct interpretation about the correct interpretation of the contract or any liabilities under it*…"

2.3 However, Paragraph 7 of PP4 then states:

> *"The Project Agreement provides at least two measures by which the Inquiry may determine that building systems were defective:*
>
> *a) If the works delivered by Project Co failed to meet the contractual specification; and*
>
> *b) If the contractual specification was itself deficient, measured against other applicable standards or what the Board intended to achieve."*

2.4 Insofar as the Project Agreement is concerned, "*Defects*" is defined at Schedule Part 1 Section 1 as:

> *"means any defect or fault in the Works and/or the Facilities and/or the Retained Estate Handback Infrastructure (not being a Snagging Matter) which occurs due to a failure by Project Co to meet the*

Board's Construction Requirements and/or Project Co's Proposals or otherwise to comply with its obligations under this Agreement"

2.5 The approach suggested in paragraph 7(a) would involve the Inquiry making a determination as to matters of contractual interpretation. Doing so would be a necessary preliminary step to answering whether the works delivered by Project Co failed to meet the contractual specification. The approach proposed in paragraph 7(a) is therefore contrary to paragraph 4 of PP4.

2.6 Multiplex acknowledges that section 2(2) of the Inquiries Act 2005 states:

"*But an inquiry panel is not to be inhibited in the discharge of its functions by any likelihood of liability being inferred from facts that it determines or recommendations that it makes.*"

2.8 The approach proposed in paragraph 7(a) of PP4, as currently drafted, would involve the Inquiry doing more than determining facts or making recommendations. As noted above, it would necessarily involve the Inquiry making a determination as to matters of contractual interpretation.

2.7 Paragraph 7(b) then appears to innovate upon the contractual position and introduces the notion that a determination of whether or not the building systems were defective is to be made by reference to wider considerations and a party's purported intentions. Multiplex would be grateful for clarification from the Inquiry on this issue having regard to Multiplex's comments on paragraph 7(a) above and that paragraph 7(b) appears to go beyond the stated purpose of PP4, which is to "*understand the agreement*".

2.8 For the reasons stated above, Multiplex would therefore respectfully request that paragraph 7 be revised to reflect the issues raised by Multiplex above.

2.9 Multiplex would also request that paragraph 16 PP4 be amended as follows:

"Two sources understood by the Inquiry to be of particular importance to the ~~potential deficiencies in the~~ ventilation system are the Room Data Sheets and the Environmental Matrix. The Board's Construction Requirements required compliance with both of these"

3 Project Agreement: core provisions on design and construction

3.1 Multiplex do not consider that paragraph 11 of PP4 provides a full and accurate representation of the position under the Project Agreement. It states:

"The core clauses on design and construction are set out in Part 3 of the main body of the Project Agreement (clauses 12 to 19)"

3.2 In its November 2021 submission, Multiplex referred the Inquiry to Clause 5.2.4 of the Project Agreement. Multiplex's position in the November 2021 submission being that under Clause 5.2.4 of the Project Agreement, the ventilation systems were required to comply with Health Technical Memoranda, and so SHTM 03-01, but only to the extent that NHSL did not state an express contrary requirement in the Board's Construction Requirements, as amended or which became amended.

3.3 Multiplex also directed the Inquiry to paragraph 2.3 of the Board's Construction Requirements, which echoes clause 5.2.4 of the Project Agreement and reiterates that if NHSL has expressed elsewhere in the Board's

Construction Requirements a specific and different requirement, then that specific requirement is to be complied with and there is no obligation to comply with any differing general requirement in the NHS requirements (including SHTM 03-01).

3.4 Against that background, Multiplex considers that referring to clauses 12 to 19 as the "*core clauses on design and construction*" is an inaccurate and/or incomplete description and liable to mislead. Clause 5.2.4 and paragraph 2.3 of the Board's Construction Requirements are also of fundamental importance in understanding the Project Agreement and what it required in relation to design and construction.

3.5 Multiplex would accordingly ask that the following be added before the current paragraph 11 of PP4:

"Clause 5.2 of the Project Agreement is headed "*General standards*" it provides:

"Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…..

…..except to the extent expressly stated to the contrary in the Board's Construction Requirements or the Service Level Specification, in compliance with all applicable NHS Requirements"

"Project Operations" is defined under the Project Agreement as "*the carrying out of the Works, the carrying out of Project Co's Pre-Completion Commissioning and Project Co's Post-Completion Commissioning, the management and provision of the Services and the performance of all other obligations of Project Co under this Agreement from time to time*"

"NHS Requirements" is defined as meaning: "*Health Building Notes and Health Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements*"

"**Board's Construction Requirements**" are defined as meaning: "*requirements of the Board set out or identified in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters) as amended from time to time in accordance with the terms of this Agreement*"

This approach is also reflected in paragraph 2.3 of the Board's Construction Requirements (discussed further below), which states:

"*In addition to the standards listed in paragraph 2.4 of this Sub-Section C of the Board's Construction Requirements, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:*

…(h)HTM and SHTM"

"**NHS Requirements**" is additionally defined in the BCRs as being: "*the requirements defined in paragraph 2.3 of this Schedule Part 6 Section 3 Sub-Section C as the same may be amended from time to time*

3.6 Multiplex would also ask that paragraph 11 be amended to:

> *"~~The core clauses on design and construction are set out in~~ Part 3 of the main body of the Project Agreement (clauses 12 to 19)* ***is titled "Design and Construction"***

(or, if the Inquiry is not minded to revise PP4 in the terms proposed in paragraphs 3.5 and 3.6 above, that the relevant section of PP4 is otherwise amended so as to reflect the importance of clause 5.2.4 and paragraph 2.3 of the Board's Construction Requirements to the issue being discussed in this section of PP4)

4 Environmental Matrix and Published Guidance

4.1 Multiplex note that at paragraph 110 to 114 of PP4, the Inquiry look to address the question of the interaction between compliance with published standards and the Environmental Matrix.

4.2 This is a matter Multiplex have addressed in their November 2021 submission. Multiplex have also provided further submissions in response to the Inquiry's Provisional Papers 1, 2 and 3 on this issue.

4.3 Multiplex's position is that, as appears to be reflected at paragraph 113 of PP4, the conflict provisions are not engaged as there is no conflict. Under Clause 5.2 of the Project Agreement and paragraph 2.3 of the Board's Construction Requirements, Project Co were only required to comply with general standards, to the extent that the Board had not expressed elsewhere a specific and different requirement. Accordingly, to the extent the Environmental Matrix set out a specific different requirement to any other standards, the Environmental Matrix took precedence and was to be complied with.

4.4 That the Project Agreement required compliance with the Environmental Matrix, rather than the general standards, in the case of any conflict between the two is confirmed by the Completion Criteria set out in the Project Agreement. Reference is made to paragraph 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, which states:

> *"Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and <u>demonstrating compliance with the Environmental Matrix</u>"*

4.5 For similar reasons, Multiplex do not consider that the final sentence of paragraph 112 of PP4 is correct, where it is suggested that the interplay between the Environmental Matrix and published guidance may be dependent on derogations. This would only be relevant to the extent it had been expressly agreed that Project Co were to depart from the Board's specific and express requirements in the Environmental Matrix and instead apply other published guidance or standards. As the Inquiry note at Appendix 2 of PP4, there is no derogation in such terms. Instead, the derogation which relates to the Environmental Matrix (IHSL-MEP-015) states the Environmental Matrix is to be developed in line with the comments in Section 5 (RDD) Part IV. These comments make no reference to changes being required to the air change rates stated in the Environmental Matrix, and indeed confirm the primacy of the Environmental Matrix requiring the matrix to be updated to cover all room and room types in the facility:

> *"The Environmental Matrix shall by updated by Project Co to reflect all the rooms and room types in the proposed Facility, this should be based on an updated Schedule of Accommodation that has been*

commented on separately by the Board. This also needs to reflect the names and room numbers in the GSU table"

4.6 Multiplex would accordingly ask that the following changes be made to PP4:

4.6.1 The final sentence of paragraph 112 be deleted.

4.6.2 The following be added after paragraph 113:

"This interpretation is supported by Clause 5.2 of the Project Agreement and Paragraph 2.3 of the Boards Construction Requirements which appear to set out that Project Co were only required to comply with more general Published Guidance, to the extent that the Board had not expressed elsewhere a specific and different requirement."

5 Room Data Sheets

5.1 Multiplex do not consider that Paragraph 22 of PP4 accurately reflects the position under the Project Agreement.

5.2 Paragraph 22 of PP4 states:

"The Board's Construction Requirements also required compliance with CEL 19 (2010) "A Policy for Design Quality for NHS Scotland, 2010 revision (e.g., Section 3 of Schedule Part 6, paragraphs 2.1, 2.2(b) and 2.3(b)). This mandated the use of the Department of Health's Activity DataBase (ADB) as an appropriate tool for briefing, design and commissioning, but noted that care was needed to ensure compliance with Scottish-specific guidance such as SHTMs. ADB was a source of room data sheets which automatically complied with English guidance (including HTMs)"

5.3 The relevance of CEL 19 and the use of ADB as briefing tools is a matter the Inquiry has considered in Provisional Papers 1 to 3. Reference is made to paragraphs 3.8 to 3.12 of Multiplex's Response to Provisional Paper 1 and paragraphs 3.1 to 3.14 of Multiplex's Response to Provisional Paper 2.

5.4 Multiplex would accordingly request that the following be added after the current paragraph 22 of PP4:

""**Room Data Sheets**" are defined in the Project Agreement as having "*the meaning given in Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters)*". Section 6 then states:

"*The Room Data Sheets are the Room Data Sheets as set out on the disc in the Agreed Form identified and executed as Appendix 1 (RDS Pack) and Appendix 2 (Environmental Matrix) of Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) of this Agreement, referred to in and forming part of this Agreement*"

Item 1 of the Guidance Notes to the Environmental Matrix incorporated as part of the Project Agreement states:

"*This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets*"."

5.5 In relation to paragraph 30 of PP4, the review of both the Environmental Matrix and Room Data Sheets carried out prior to Financial Close has been discussed in the previous Provisional Papers produced by the Inquiry. Multiplex would direct the Inquiry to paragraphs 6.1 to 6.6 of Multiplex's Response to Provisional Paper 1, paragraph 6.4 and 7.1 to 7.15 of Multiplex's Response to Provisional Paper 2 and paragraph 6.1 to 6.11 of Multiplex's Response to Provisional Paper 3. Both the Room Data Sheets and the Environmental Matrix were reviewed and discussed with NHSL and their technical advisors during the preferred bidder period.

5.6 Multiplex would also note that the Schedule of Accommodation reflected the status of the design at Financial Close.

5.7 At paragraph 34 of PP4 the Inquiry state:

> *"The Inquiry Team is proceeding on the understand that, to the extent the Room Data Sheets and Environmental Matrix were Reviewable Design Data, they did not form an approved basis for construction; were subject to Project Co's obligation to develop and finalise the design and specification of the Works; and would only become an approved basis for construction once they had been reviewed by the Board and approved as meeting their requirements for Operational Functionality"*

5.8 Multiplex consider that in this context reference should also be made to the Completion Criteria provided for in the Project Agreement. As was set out in Multiplex's November 2021 Submission, paragraphs 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, state:

> 2.1.4: "*All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets*"
>
> 2.1.32: "*Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix*"

5.9 There were accordingly separate obligations (supplemental to those set out in the Review Procedure) for the Facility to comply with both the requirements of the Room Data Sheets and the Environmental Matrix in their entirety. The Completion Criteria make no reference to Operational Functionality.

5.10 Multiplex also consider it is important to note that that under the Review Procedure, once a document was approved as either Level A or B, there was an obligation to proceed in accordance with it. Reference is made to Paragraph 4 of Schedule Part 8 of the Project Agreement which sets out the effect of the review, with paragraph 4.1 stating (our emphasis):

> "*Any Submitted Item which is returned or deemed to have been returned by the Board's Representative endorsed "no comment" (and in the case of Reviewable Design Data, endorsed "Level A - no comment") shall be complied with or implemented (as the case may be) by Project Co*"

5.11 With paragraph 4.3.1 then stating that (again our emphasis):

"*Project Co shall where the Board's Representative has endorsed the Submitted Item "Level B-proceed subject to amendment as noted", either proceed to construct or proceed to the next level of design of the part of the Works to which the Submitted Item relates but take into account any amendments required by the Board's Representative in his comments*"

5.12 Multiplex would accordingly ask that the following be added after the current paragraph 34:

"In terms of paragraph 4 of the Schedule Part 8 Review Procedure, IHSL was obliged to proceed in accordance with items which had been approved as Level A or B. Under Schedule Part 10 the Completion Criteria for the project required that all mechanical and electrical plant be in accordance with the Room Data Sheets and that compliance with the Environmental Matrix be demonstrated"

6 Review Process

6.1 The following is stated at paragraph 36 of PP4:

"The review process entitled the Board to raise objections on grounds wider than Operational Functionality (Schedule Part 8, paragraph 3; in particular, paragraphs 3.1 and 3.39). The review process may therefore have presented the Board with an opportunity to detect deficiencies in the design such as (for example) non-compliance with ventilation standards. It may be relevant to consider whether this was realistic, having regard to the contractual timescales for review by the Board and Project Co's general liability for the design."

6.2 Multiplex would make the following observations in relation to the final sentence:

6.2.1 Firstly, the contractual time period for review relates only to the formal review period. The design was being discussed and reviewed with the Board and its technical advisors prior to formal submission as part of the RDD process. Multiplex understand that there were usually pre-RDD submission meetings held. The design documents were issued to the Board and their technical advisors ahead of the relevant meeting date and then representatives from each party attended the pre-RDD meeting, where they raised any comments on the proposed submission. These comments were then taken away and the drawings updated as required ahead of the formal RDD submission. The purpose of the pre-RDD meetings being to ensure the Board (and its technical advisors) understood the design and that it reflected their requirements;

6.2.2 Secondly, the review process itself lasted throughout the project;

6.2.3 Thirdly, there were a number of design documents which reflected the Board's ventilation requirements, each of which was reviewed on multiple occasions. This included such design documents as the Ventilation Distribution Layout Drawings, Extract Grille Schedules and Supply Grille Schedules.

6.3 The Board, and its technical advisors played an active role in the development of the ventilation design, both as part of the formal review procedure and in the discussion that took place in advance of formally submitting the Reviewable Design Data for approval. This active role being narrated in paragraph 2 of the Board's Construction Requirements:

"*The Board is keen to actively participate in the design process. To facilitate this, Project Co shall engage the Board in the design and in particular the Reviewable Design Data*"

6.4 Multiplex accordingly consider the Board, and their technical advisors, had sufficient time and opportunity to raise any comments on the design and advice if it did not meet their requirements.

7 Project Co Proposals

7.1 The Inquiry state the following at paragraph 24 of PP4:

> *"By clause 12.5, the Board confirmed, subject to qualifications, that those parts of Project Co's Proposals which it had initialled satisfied its requirements in respect of Operational Functionality. This implies the existence of a set of Project Co's Proposals initialled by the Board. It is not clear where this set is to be found. The Project Co's Proposals forming part of the Project Agreement at financial close do not, with the exception of a few plans, bear to have been initialled by the Board"*

7.2 Multiplex consider it is important to note that the Board's review of the Project Co Proposals went beyond operational functionality. Each aspect of the Project Co Proposals was reviewed and commented on by the Board prior to its incorporation into the Project Agreement.

8 Position at Financial Close

8.1 The following is stated at paragraph 110 of PP4:

> *"As noted above, the Board's Construction Requirements feature prominently in the Project Agreement specification. These required compliance with the Environmental Matrix. The Environmental Matrix included specific parameters for the ventilation system. It was not, however, set in stone at financial close: it was Reviewable Design Data and subject to Project Co's obligation to develop and finalise the design and specification. Further, Project Co did not have to comply with the Environmental Matrix (or any other part of the Board's Construction Requirements) to the extent of the derogations in section 4.31 of Project Co's Proposals. As noted above, these included derogations about the Environmental Matrix. Those factors give rise to some ambiguity (or at least some room for argument) about the contractual status of its contents."*

8.2 The status of the Environmental Matrix at Financial Close is discussed in the previous provisional papers produced by the Inquiry. Multiplex would direct the Inquiry to paragraphs 6.1 to 6.6 of Multiplex's Response to Provisional Paper 1, paragraphs 6.4 and 7.1 to 7.15 of Multiplex's Response to Provisional Paper 2 and paragraphs 6.1 to 6.11 of Multiplex's Response to Provisional Paper 3. As is set out in these responses, Multiplex's understanding was that the Environmental Matrix was agreed subject to the comments set out in in Section 5 of Schedule Part 6 of the Project Agreement, none of which relates to the air change rate regime.

8.3 As also noted at paragraph 4.5 above of this response, the derogations referred to by the Inquiry do not relate to the air change rate.

9 Disclosed Data

9.1 On the matter of the status of the Environmental Matrix referred to at paragraph 48 of PP4, Multiplex would direct the Inquiry to Multiplex's Response to Provisional Paper 2.

10 Impact of Energy Efficiency

10.1 On the matter of energy efficiency referred to at paragraph 67 of PP4, Multiplex would direct the Inquiry to section 5 of Multiplex's Response to Provisional Paper 1, which response included reference to paragraph 5.26 of the Board's Construction Requirements which states:

> ***5.26 Energy Strategy***
> *Project Co shall provide Facilities that achieve an optimum level of energy and utility conservation. Project Co shall:*
>
> *a) Minimise internal areas requiring mechanical ventilation;*

11 Settlement Agreement

11.1 In relation to paragraphs 95 to 109 of PP4, Multiplex consider that PP4 should also make reference to the Settlement Agreement and Supplemental Agreements between NHSL and IHSL and between IHSL and Multiplex dated 22 February 2019 ("**SA**"). The Inquiry is directed to Multiplex's November 2021 submission which addressed the SA and included the following points:

11.1.1 the SA informs the position as to the applicability of SHTM 03-01;

11.1.2 under the SA, NHSL agreed to resolve certain heads of claim (known as the Released Claims). The Released Claims include any claims arising out of or connected with: (1) the Dispute; (2) the underlying facts of the Dispute; (3) any act, omission, breach, default, negligence or failure to comply with the Construction Contract in relation to the Dispute; and (4) the Agreed Resolution;

11.1.3 the "Dispute" is defined in the SA as: (i) all claims, disagreements and disputes arising out of or in connection with the matters which are set out in the column entitled "Dispute" in the Technical Schedule; and/or the Post Completion Disputed Works;

11.1.4 the Agreed Resolution is the technical solution required to resolve the Dispute as described in the Technical Schedule;

11.1.5 a number of the items contained within the Technical Schedule relate to ventilation;

11.1.6 the SA restated the Board's Requirements under the Project Agreement. Where those requirements were different from SHTM 03-01, it confirmed that the design and construction should meet the Board's specific requirements as documented in the SA, not SHTM 03-01;

11.1.7 the SA captured all known technical disputes between the parties regarding the design and installation of the hospital prior to the independent tester certifying the works as complete;

11.1.8 had Multiplex (in the opinion of NHSL and its advisors) failed to comply with the Project Agreement, and failed to adhere to SHTM 03-01, this would have been raised in the SA and an Agreed Resolution specified. Completion would not have been certified until there was an Agreed Resolution and any works required to meet that Agreed Resolution completed;

11.1.9 Completion was certified on 22 February 2019, pursuant to Clause 17.12 of the Project Agreement. This certification confirmed that the Facilities had been completed in accordance with the Completion Criteria, as amended by the SA.

12 Multiplex is happy to discuss any of the proposed corrections/additions to PP4 with the Inquiry team if it would be of assistance.

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Room reviews

MULTIPLEX

WKP 47	WKP 46	WKP 45_5	Sequence as WKP42	Sequence as Sectors	Edinburgh RHSC & DCN room reviews Build Zone Name	Bar.Department	Corrected room numbers removing all engineering areas and stairs	Room Review Date rev 47
1	1	1	1	7	BL-01-01	D1 RHSC Main Outpatients	36	20/01/17
2	2	2	2	1	BL-00-01	D1 RHSC Main Outpatients`D10 Ambulance Care Shared Support`I1 RHSC Entrance	40	24/01/17
3	3	3	3	2	BL-00-02	D2 Cardiology	19	24/01/17
4	4	4	4	8	BL-01-02	D6 RHSC Therapies	45	24/01/17
5	5	5	5	9	BL-01-03	D6 RHSC Therapies	14	24/01/17
6	6	6	6	11	BL-02-01	R1 Clinical/Management Suite	17	23/02/17
7	7	7	7	12	BL-02-02	R1 Clinical/Management Suite	16	23/02/17
8	9	9	9	14	BL-02-04	R1 Clinical/Management Suite	9	14/04/17
9	10	10	10	13	BL-02-03	R1 Clinical/Management Suite	34	18/04/17
10	11	11	11	3	BL-00-03	K1 Family Support Services	31	28/04/17
11	12	12	12	15	BL-03-01	H3 Clinical Edu. Suite	21	28/04/17
12	13	13	15	4	BL-00-04	S6 Estates`D5 Paediatric Dentistry`I1 RHSC Entrance`D8 Social Work	12	16/06/17
13	14	14	22	77	Zone A Stairs	Stair 6	1	17/07/17
14	16	16	23	78	Zone A Stairs	Stair 7	1	02/08/17
15	17	49	36	41	OR-03-02	C1.4 Haematology/Oncology Ward	14	28/08/17
16	18	17	25	16	BL-03-02	K2 Family Hotel	27	30/08/17
17	19	18	29	17	BL-03-03	K2 Family Hotel	48	30/08/17
18	21	20	37	43	OR-03-04	C1.5 Med/Surg/Neuro/Haemo Shared Sup`C3 Special Feeds Unit	15	06/09/17
19	22	21	56	40	OR-03-01	C1.4 Haematology/Oncology Ward	29	12/09/17
20	23	22	45	42	OR-03-03	C1.4 Haematology/Oncology Ward	21	19/09/17
21	26	26	26	38	OR-02-01	S5 Central Staff Changing	6	25/09/17
22	29	31	53	79	Zone A Stairs	Stair 5	1	28/09/17
23	30	32	13	24	OR-00-02	M1 DCN Outpatients	15	29/09/17
24	32	39	78	76	Energy Centre		1	05/10/17
25	25	24	41	62	GR-03-01	C1.1 Medical Inpatients`D9 Medical Daycare Unit	36	20/11/17
26	31	37	42	63	GR-03-02	C1.1 Medical Inpatients`C4 Sleep Lab	38	20/11/17
28	39	47	48	39	OR-02-02	G2 Equipment Library	2	27/11/2017
30	24	23	14	23	OR-00-01	M1 DCN Outpatients	34	27/11/17
31	27	27	38	44	OR-03-05	C1.3 Neuroscience Inpatients`C1.7 Paediatric Neurophysiology	46	27/11/17
36	59	63	57	65	GR-03-04	C1.2 Surgical Long Stay Inpatients	45	27/11/17
47	42	55	43	58	GR-02-03	M3 Programmed Investigations Unit	48	11/12/17
29	8	8	8	10	GR-00-04	A2 Paediatric Acute Receiving Unit	48	18/12/17
32	28	28	51	48	OR-01-02	P1 Theatres & RHSC SDCU	23	18/12/17
33	34	35	17	21	GR-01-02	L1 DCN Acute Care	40	18/12/17
34	43	34	18	20	OR-00-03	Q1 Radiology	38	18/12/2017
35	35	36	16	22	A & D1 - PU-04-02	R2 Health Records & corridor	11	18/12/2017
41	45	29	19	32	OR-01-03	P1 Theatres & RHSC SDCU	39	18/12/2017
43	36	46	39	52	GR-03-03	C1.1 Medical Inpatients`C1.6 Shared Adolescent accom`C4 Sleep Lab	43	18/12/17
45	51	45	33	25	GR-01-01	L1 DCN Acute Care	46	18/12/17
46	60	72	32	67	BL2-Basement -02	S1 Kitchen	21	18/12/17
50	50	52	34	33	OR-00-04	Q1 Radiology	27	18/12/2017
37	41	44	55	64	OR-01-01	P1 Theatres & RHSC SDCU	35	18/12/17
38	33	38	46	51	GR-02-04	L2 DCN Inpatients	56	18/12/17
39	40	33	21	19	GR-03-01a	Staff area	5	18/12/2017
55	57	51	40	26	C & F1- PU-04-03	R2 Health Records H1 Child Life & Health	30	18/12/2017
56	47	40	35	31	OR-01-06	P1 Theatres & RHSC SDCU	14	18/12/17
57	48	57	65	59	GR-02-02	L2 DCN Inpatients	50	18/12/17
58	71				GR-02-05	G2 Equipment Library`S2 E-Health Infrastructure`M2 DCN Therapies	29	18/12/2017
59	58	65	70	69	GR-02-01	N2 DCN/Health Records Support	5	18/12/2017
60	38	53	31	36	GR-00-02a	Staff area	4	18/12/2017
61	37	43	50	57	OR-03-03	C1.4 Haematology/Oncology Ward- isolation rooms - part	10	08/01/2018
62	54	69	66	60	GR-00-03	A2 Paediatric Acute Receiving Unit	44	08/01/18
63	73	42	47	56	GR-03-05	C1.1 Medical Inpatients`C1.8 Surgical Short Stay Inpatients	39	08/01/2018
64	87	54	59	46	OR-01-04	P1 Theatres & RHSC SDCU	23	08/01/18
44	56	30	45	42	OR-01-07	P1 Theatres & RHSC SDCU	19	08/01/18
40	44	50	49	47	BL2-Basement -01	I2 Bed & Toy Store	3	08/01/2018
42	72	48	64	66	GR-02-06	M4 DCN Neurophysiology`M2 DCN Therapies	20	08/01/2018
67	46	25	28	34	OR-00-06	Q1 Radiology	21	08/01/2018
68	20	19	30	37	OR-00-05	Q1 Radiology	29	08/01/2018
69	62	41			Main Corridor Fourth	Main Corridor Fourth	5	08/01/2018
70	68	78	67	61	OR-00-07	I1 RHSC Entrance`Q1 Radiology	30	08/01/2018
71	79	58	79	28	OR-00-08	Q1 Radiology	15	08/01/2018
72	85	56	77	27	BL2-Basement -04	S4 Materials Management	10	15/01/18
75	66	64	72	70	BL2-Basement -03	S3 Domestic Services	14	15/01/18
76	74	61	75	29	BL2-Basement -05	S4 Materials Management	9	15/01/18
77	93	68	76	30	GR-01-02a	G3 On Call Suite	9	15/01/2018
48					GR-00-05	F1 CAMHS	49	15/01/2018
27	53	75	60	49	Main Corridor Basem	Main Corridor Basement	8	15/01/2018
66	80				D2 - PU-04-03	S9 Helipad Support	7	15/01/2018
78	49	59	54	72	E & F- PU-04-04	H1 Child Life & Health	35	15/01/2018
79	55	70	71	73	BL-00-01a	Retail / catering Staff room Acorn rooms	7	15/01/2018
80	84				OR-01-05	P1 Theatres & RHSC SDCU	33	15/01/18
81	15	15	27	35	GR-00-02	A1 Emergency	35	15/01/2018
82	65	54	59	46	GR-01-04	B1 Picu & HDU's	43	15/01/2018
83	61	74	61	54	GR-01-05	H2 Clinical Research Facility	26	15/01/2018
84	63	76	62	55	GR-00-04	J2 - Sanctury	6	15/01/2018
86	67	67	51	48	B - PU-04-01/3	S7 Restaurant	11	15/01/2018
88	78	73	69	68	BL-01-04	D3 Orthoptics	24	22/01/18
49	52	66	52	53	GR-01-03	J1 Berevement`B1 Picu & HDU's	45	22/01/2018
51	70				Pod Third	Atrium bridges /lift lobby	4	22/01/2018
52	76				Pod Second	Atrium bridges /lift lobby	4	22/01/2018
53	83				Pod First	Reception waiting Pod bridge /lift lobby	5	22/01/2018
85	64	60	44	5	BL-00-05	E1 Pod	3	22/01/2018
87	81	71	83	6	BL-00-06 (Street)	Street	14	22/01/2018
89	86	62	68	45	GR-00-01	A1 Emergency	34	22/01/2018
90	69				Main Corridor Third	Main Corridor Third	9	22/01/2018
91	75				Main Corridor Secon	Main Corridor Second	8	22/01/2018
92	82				Main Corridor First	Main Corridor First	11	22/01/2018
93	88				Main Corridor Groun	Main Corridor Ground	11	22/01/2018
94	94	77	63	50	GR-00-06	F1 CAMHS	46	22/01/2018
54	91	81	81	81	Zone B & C Stairs	Stair 3	1	29/01/2018
73	89	79	24	79	Zone B & C Stairs	Stair 2	1	29/01/2018
74	90	80	80	80	Zone B & C Stairs	Stair 1	1	29/01/2018
65	92	82	82	82	Zone B & C Stairs	Stair 4	1	29/01/2018
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WKP 47	16/01/17	23/01/17	30/01/16	06/02/17	13/02/17	20/02/17	27/02/17	06/03/17	13/03/17	20/03/17	27/03/17	03/04/17	10/04/17	17/04/17	24/04/17	01/05/17	08/05/17	15/05/17	22/05/17	29/05/17	05/06/17	12/06/17	19/06/17	26/06/17	03/07/17	10/07/17	17/07/17
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	36	154	154	154	154	202	202	202	202	202	202	202	211	245	297	297	297	297	297	309	309	339	339	339	350	350	353

WKP 47	24/07/17	31/7/17	7/8/17	14/8/17	21/8/17	28/8/17	4/9/17	11/9/17	18/9/17	25/9/17	2/10/17	9/10/17	16/10/17	23/10/17	30/10/17	6/11/17	13/11/17	20/11/17	27/11/17	4/12/17	11/12/17	18/12/17	8/1/18	15/1/18	22/1/18	29/1/18	5/2/18	12/2/18	19/2/18
Week No.	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	152	153	154	155	156	157	158
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	365	385	385	397	409	484	496	522	567	606	682	695	773	773	826	837	875	919	1045	1080	1080	1244	1464	1678	1907	2060	2060	2060	2060
	365	385	385	397	409	484																							

Edinburgh RHSC & DCN

Sequence as WKP42	Sequence as Sectors	Build Zone Name	Bar.Department		Number of Rooms	Total no. of rooms completed
2	1	BL-00-01	D1 RHSC Main Outpatients`D10 Ambulance Care Shared Support`I1 RHSC Entrance	49	49	47
3	2	BL-00-02	D2 Cardiology	19	19	19
11	3	BL-00-03	K1 Family Support Services	32	32	32
15	4	BL-00-04	S6 Estates`D5 Paediatric Dentistry`I1 RHSC Entrance`D8 Social Work	18	18	18
44	5	BL-00-05	E1 Pod	6	6	6
53	6	BL-00-06 (Street)	Street	5	5	3
1	7	BL-01-01	D1 RHSC Main Outpatients	36	36	36
4	8	BL-01-02	D6 RHSC Therapies	45	45	44
5	9	BL-01-03	D6 RHSC Therapies	14	14	14
8	10	BL-01-04	D3 Orthoptics	28	28	27
6	11	BL-02-01	R1 Clinical/Management Suite	17	17	17
7	12	BL-02-02	R1 Clinical/Management Suite	15	15	15
10	13	BL-02-03	R1 Clinical/Management Suite	33	33	33
9	14	BL-02-04	R1 Clinical/Management Suite	9	9	9
12	15	BL-03-01	H3 Clinical Edu. Suite	21	21	21
25	16	BL-03-02	K2 Family Hotel	27	27	27
29	17	BL-03-03	K2 Family Hotel	48	48	48
20	18	BL2-Basement -01	I2 Bed & Toy Store	20	20	13
21	19	BL2-Basement -02	S1 Kitchen	21	21	21
18	20	BL2-Basement -03	S3 Domestic Services	17	17	16
17	21	BL2-Basement -04	S4 Materials Management	14	9	5
16	22	BL2-Basement -05	S4 Materials Management	9	9	9
14	23	OR-00-01	M1 DCN Outpatients	35	35	35
13	24	OR-00-02	M1 DCN Outpatients	15	15	15
33	25	OR-00-03	Q1 Radiology	38	38	37
40	26	OR-00-04	Q1 Radiology	27	27	21
77	27	OR-00-05	Q1 Radiology	30	30	30
79	28	OR-00-06	Q1 Radiology	21	21	21
75	29	OR-00-07	I1 RHSC Entrance`Q1 Radiology	30	30	30
76	30	OR-00-08	Q1 Radiology	16	16	16
35	31	OR-01-01	P1 Theatres & RHSC SDCU	36	36	31
19	32	OR-01-02	P1 Theatres & RHSC SDCU	23	23	21
34	33	OR-01-03	P1 Theatres & RHSC SDCU	39	39	37
28	34	OR-01-04	P1 Theatres & RHSC SDCU	22	22	21
27	35	OR-01-05	P1 Theatres & RHSC SDCU	34	34	32
31	36	OR-01-06	P1 Theatres & RHSC SDCU	14	14	14
30	37	OR-01-07	P1 Theatres & RHSC SDCU	19	19	19
26	38	OR-02-01	S5 Central Staff Changing	6	6	6
48	39	OR-02-02	G2 Equipment Library	4	4	3
56	40	OR-03-01	C1.4 Haematology/Oncology Ward	29	29	29
36	41	OR-03-02	C1.4 Haematology/Oncology Ward	14	14	14
45	42	OR-03-03	C1.4 Haematology/Oncology Ward	44	44	44
37	43	OR-03-04	C1.5 Med/Surg/Neuro/Haemo Shared Sup`C3 Special Feeds Unit	15	15	15
38	44	OR-03-05	C1.3 Neuroscience Inpatients`C1.7 Paediatric Neurophysiology	47	47	47
68	45	GR-00-01	A1 Emergency	36	36	34
59	46	GR-00-02	A1 Emergency	42	42	41
49	47	GR-00-03	A2 Paediatric Acute Receiving Unit	47	47	45
51	48	GR-00-04	A2 Paediatric Acute Receiving Unit	48	48	47
60	49	GR-00-05	F1 CAMHS	50	50	49
63	50	GR-00-06	F1 CAMHS	48	48	43
46	51	GR-01-01	L1 DCN Acute Care	48	48	48
39	52	GR-01-02	L1 DCN Acute Care`G3 On Call Suite	52	52	52
52	53	GR-01-03	J1 Berevement`B1 Picu & HDU's	48	48	41
61	54	GR-01-04	B1 Picu & HDU's	46	46	45
62	55	GR-01-05	H2 Clinical Research Facility	26	26	25
47	56	GR-02-01	N2 DCN/Health Records Support	8	8	8
50	57	GR-02-02	L2 DCN Inpatients	50	50	50
43	58	GR-02-03	M3 Programmed Investigations Unit	48	48	48
65	59	GR-02-04	L2 DCN Inpatients	56	56	56
66	60	GR-02-05	G2 Equipment Library`S2 E-Health Infrastructure`M2 DCN Therapies	31	31	31
67	61	GR-02-06	M4 DCN Neurophysiology`M2 DCN Therapies	19	19	19
41	62	GR-03-01	C1.1 Medical Inpatients`D9 Medical Daycare Unit	39	39	39
42	63	GR-03-02	C1.1 Medical Inpatients`C4 Sleep Lab	38	38	38
55	64	GR-03-03	C1.1 Medical Inpatients`C1.6 Shared Adolescent accom`C4 Sleep Lab	44	44	44
57	65	GR-03-04	C1.2 Surgical Long Stay Inpatients	49	49	49
64	66	GR-03-05	C1.1 Medical Inpatients`C1.8 Surgical Short Stay Inpatients	38	38	38
32	67	A - PU-04-02	R2 Health Records	11	11	11
69	68	B - PU-04-01	S7 Restaurant	11	11	11
70	69	C - PU-04-03	R1 Management Suite/C5 Classrooms	34	34	34
72	70	D - PU-04-03	Stairs 1, 2, 3 & 4	0	0	0
58	71	D1 - PU-04-Plant 002	Plant	1	1	0
54	72	D2 - PU-04-03	S9 Helipad Support	9	9	9
71	73	E - PU-04-04	H1 Child Life & Health	38	38	35
73	74	F - PU-04-04	H1 Child Life & Health	0	0	0
74	75	F1 - PU-04-04	H1 Child Life & Health	0	0	0
78	76	Energy Centre		4	4	4
22	77	Zone A Stairs	Stair 6	7	7	7
23	78	Zone A Stairs	Stair 7	7	7	7
24	79	Zone A Stairs	Stair 5	7	7	7
		Zone A Stairs	Stair 9	1	1	1
80	80	Zone B & C Stairs	Stair 2	6	6	6
81	81	Zone B & C Stairs	Stair 1	5	5	5
82	82	Zone B & C Stairs	Stair 3	7	7	7
83	83	Zone B & C Stairs	Stair 4	9	9	9
					2124	2061

Sequence as Sectors	16/01/17	23/01/17	30/01/17	06/02/17	13/02/17	20/02/17	27/02/17	06/03/17	13/03/17	20/03/17	27/03/17	03/04/17	10/04/17	17/04/17	24/04/17	01/05/17	08/05/17	15/05/17	22/05/17	29/05/17
1		33																		
2		12																		
3																	26			
4																				
5																				
6																				
7		29																		
8				28																
9				11																
10										14										
11							10													
12							12							1						
13														23						
14														7						
15																	15			
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				12
25																				
26																				
27																				
28																				
29																				
30																				
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73																				
74																				
75																				
76																				
77																				
78																				
79																				
80																				
81																				
82																				
83																				
Rooms completed	0	74	0	39	0	0	22	0	0	14	0	0	0	31	0	0	41	0	0	12
Cumulative Rooms completed	0	74	74	113	113	113	135	135	135	149	149	149	149	180	180	180	221	221	221	233

Sequence as Sectors	05/06/17	12/06/17	19/06/17	26/06/17	03/07/17	10/07/17	17/07/17	24/07/17	31/07/17	07/08/17	14/08/17	21/08/17	28/08/17	04/09/17	11/09/17	18/09/17	25/09/17	02/10/17	09/10/17	16/10/17	23/10/17	30/10/17
1		8																				
2		6																				
3		5																				
4		7																				
5																						
6																						
7				1																		
8				16																		
9				2																		
10				1																		
11			7																			
12			2																			
13			9																			
14																						
15																						
16													27									
17													44									
18																						
19																						
20																						12
21																				5		
22																						
23		18														9						
24																3						
25																						
26																						
27																						
28																						
29																						
30																						
31																			13			
32					10																	
33																						
34								7														
35										19							10					
36																				9		
37											12											
38							2										3					
39																						
40															26							
41													12									
42																	21					
43														12								
44																		19				
45																						
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52																				17		
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67																						
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69																						
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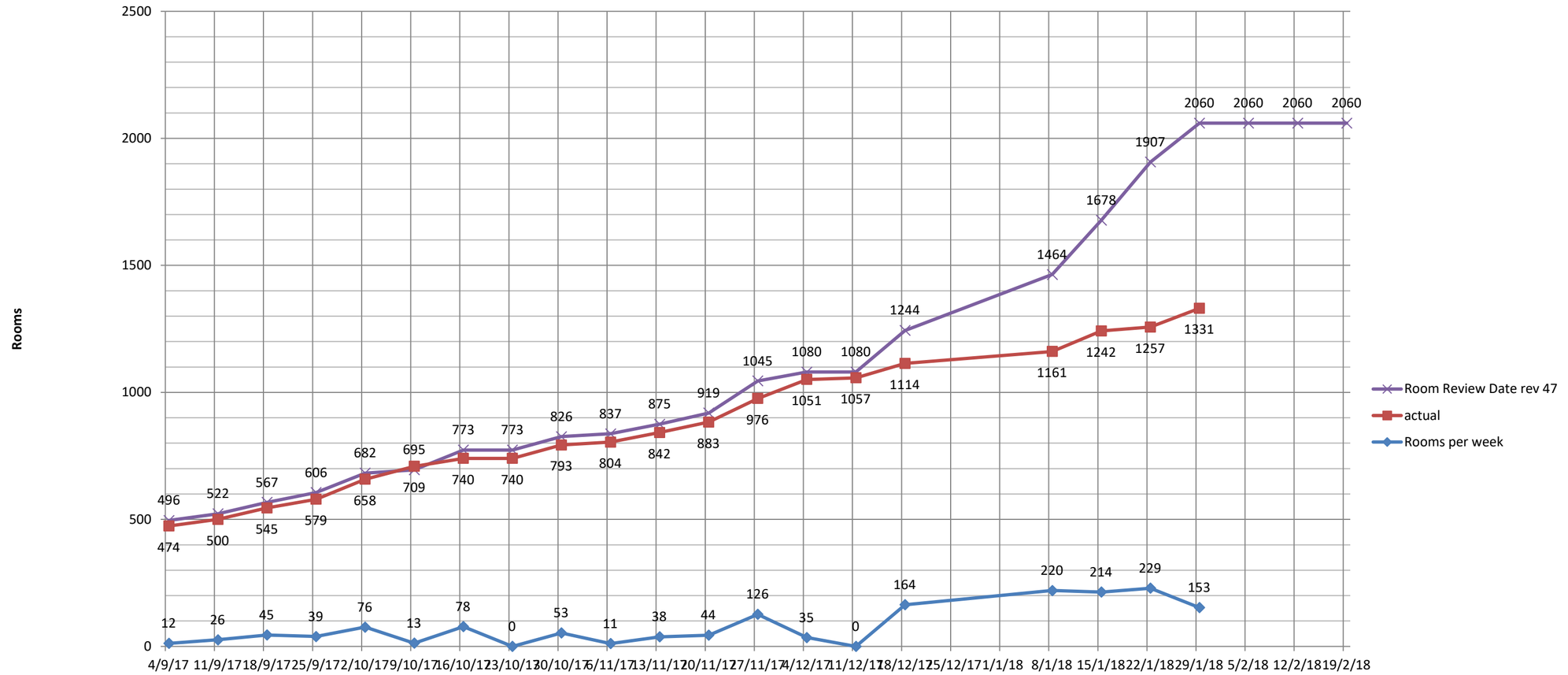
71																						
72																						
73																						
74																						
75																						
76																		4				
77							7															
78									7													
79																						
80																						
81																						
82																						
83																						
Rooms completed	0	44	18	20	10	0	9	7	7	19	12	0	83	12	26	45	34	79	51	31	0	53
Cumulative Rooms completed	233	277	295	315	325	325	334	341	348	367	379	379	462	474	500	545	579	658	709	740	740	793

Sequence as Sectors	06/11/17	13/11/17	20/11/17	27/11/17	04/12/17	11/12/17	18/12/17	08/01/18	15/01/18	22/01/18	29/01/18	05/02/18	12/02/18	19/02/18	26/02/18	05/03/18	12/03/18	19/03/18	26/03/18	02/04/18	09/04/18	16/04/18	23/04/18	30/04/18	07/05/18
1																4		2							
2																1									
3											1														
4											5					2		1	3						
5																		4	2						
6																1			2						
7																6									
8																									
9											1														
10											2		7			3									
11																									
12																									
13																1									
14																	2								
15																6									
16																									
17											2		2												
18																					5	4		4	
19					11										3			6			1				
20															1			1			1			1	
21																									
22											9														
23																5		2		1					
24																									
25							22							1		11	2		1						
26														16		2					3				
27														17		2	2	7			2				
28														13		8									
29														18		6		5	1						
30														11				5							
31					5									12					1						
32	8													1			2								
33							24							9					4						
34	3										1			6					4						
35											3														
36														3					2						
37														6			1								
38													1												
39													3												
40					1			2																	
41					1											1									
42					13			4								6									
43					3																				
44					17			5					1			5									
45																30			3	1					
46																40				1					
47			32								4				2			1		4	2				
48											4				9					5	1				
49				32													12	4		1					
50																		5	31	4	3				
51								7				1	1					1							
52							11						3				10	9					2		
53													2	34			1	1			2		1		
54													43				1						1		
55												18					1						1	5	
56													3			5									
57								17								11									
58												20				6				3					
59				24					28									2		2					
60											21	6	4												
61									18		1														
62			5							1															
63			4							2	2					1	1								
64		38								2						3	1								
65				37						6	2					3	1								
66									35	1							2								
67						6								2			1	2							
68														5			6								
69								12					20				2								
70																									
71																									
72													1	6			2								
73					24								7	2			2								
74																									
75																									
76																									
77																									
78																									
79											7														
																							1		
80																					5		1		
81										3	2														
82											7														
83																						9			
Rooms completed	11	38	41	93	75	6	57	47	81	15	74	45	98	162	15	169	52	58	54	22	25	13	7	10	0
Cumulative Rooms completed	804	842	883	976	1051	1057	1114	1161	1242	1257	1331	1376	1474	1636	1651	1820	1872	1930	1984	2006	2031	2044	2051	2061	2061

MULTIPLEX

Room Reviews

RHSC & DCN



	4/9/17	11/9/17	18/9/17	25/9/17	2/10/17	9/10/17	16/10/17	23/10/17	30/10/17	6/11/17	13/11/17	20/11/17	27/11/17	4/12/17	11/12/17	18/12/17	8/1/18	15/1/18	22/1/18	29/1/18	5/2/18	12/2/18	19/2/18
Room Review Date rev 47	496	522	567	606	682	695	773	773	826	837	875	919	1045	1080	1080	1244	1464	1678	1907	2060	2060	2060	2060
actual	474	500	545	579	658	709	740	740	793	804	842	883	976	1051	1057	1114	1161	1242	1257	1331			
Rooms per week	12	26	45	39	76	13	78	0	53	11	38	44	126	35	0	164	220	214	229	153			

Date

External Spaces Inspections

MULTIPLEX

Edinburgh RHSC & DCN External Spaces inspections	Week No.	Client Check Start Date rev 43_C	135	136	137	138	139	140	141	142	143	144	145
Area Ref	**Bar.Department**		11/9/17	18/9/17	25/9/17	2/10/17	9/10/17	16/10/17	23/10/17	30/10/17	6/11/17	13/11/17	20/11/17
External Spaces													
Courtyard A	G-CT-001 - CAMHS Secure Garden	02/10/17											
Courtyard B	G-CT-002 - CAMHS Courtyard A	02/10/17											
Courtyard H	G-CT-003 - CAMHS Courtyard B	02/10/17											
	G-CT-004 - PARU Garden	02/10/17											
Courtyard C	G-CT-005 - Spiritual Courtyard	02/10/17											
Courtyard D	G-CT-006 - Staff Courtyard	09/10/17											
Elevation 58	G-CT-007 - Emergency Dept External Play Area	02/10/17											
Elevation 07	G-CT-008 - Bereavement Garden	02/10/17											
Elevation 55	G-CT-009 - Drop-In Centre Garden and OPD Play	02/10/17											
RF 01 05	1-CT-010 - Emergency Department Green Roof	02/10/17											
RF 01 04	1-CT-011 - Courtyard Terrace	09/10/17											
RF 02 04	2-CT-012 - DCN Courtyard	02/10/17											
RF 02 01	2-CT-013 - Street Courtyard 1	02/10/17											
RF 02 05	2-CT-014 - Critical Care Green Roof	02/10/17											
RF 02 03	2-CT-015 - DCN Terrace	02/10/17											
RF 02 02	2-CT-016 - DCN Therapies Terrace	02/10/17											
RF 03 05	3-CT-017 - Neurosciences Terrace	02/10/17											
RF 03 07	3-CT-018 - Haemotology / Oncology Terrace	02/10/17											
RF 03 06	3-CT-019 - Long Stay Surgical Terrace	02/10/17											
RF 03 08	3-CT-020 - MDCU Terrace	02/10/17											
RF 04 07	4-CT-021 - Restaurant Terrace	02/10/17											
RF 04 05	4-CT-022 - Management Suite Terrace	02/10/17											
RF 04 04	4-CT-023 - Classroom Terrace	02/10/17											
RF 04 04	4-CT-024 - University Terrace	02/10/17											
HS	Hospital Square	25/09/17											
EP	Entrance Plaza	02/10/17											
CP	Cycle Path and landscaping	09/10/17											
EC	Energy Centre Green Roof	27/09/17											
RHSC E	RHSC Entrance Canopy												
DCN E	DCN Entrance												
RF 01 03	CAMHS green roof												
Courtyard Elevations													
Courtyard A	Elevations 08;09;12;13												
CY A	Elevation 08	09/10/17											
CY A	Elevation 09												
CY A	Elevation 12												
CY A	Elevation 13												
Courtyard B	Elevations 17;18;18a												
CY B	Elevation 17												
CY B	Elevation 18												
CY B	Elevation 18a												
Courtyard C	Elevations 19;20;21;22;23;64												
CY C	Elevation 19												
CY C	Elevation 20												
CY C	Elevation 21												
CY C	Elevation 22												
CY C	Elevation 23												
CY C	Elevation 64												
Courtyard D	Elevations 24;25;26;27;28;29;30												
CY D	Elevation 24												
CY D	Elevation 25												
CY D	Elevation 26												
CY D	Elevation 27												
CY D	Elevation 28												
CY D	Elevation 29												
CY D	Elevation 30												
Courtyard E	Elevations 31;32;33;34;63												
CY E	Elevation 31												
CY E	Elevation 32												
CY E	Elevation 33												
CY E	Elevation 34												
CY E	Elevation 63												
Courtyard F	Elevations 35;36;37;38												
CY F	Elevation 35												
CY F	Elevation 36												
CY F	Elevation 37												
CY F	Elevation 38												
Courtyard G	Elevations39;40;41;42;43;44;45;46												
CY G	Elevation 39												
CY G	Elevation 40												
CY G	Elevation 41												
CY G	Elevation 42												
CY G	Elevation 43												
CY G	Elevation 44												
CY G	Elevation 45												
CY G	Elevation 46												
Courtyard H	Elevations 14;15;16												
CY H	Elevation 14												
CY H	Elevation 15												
CY H	Elevation 16												
External Elevations													
Zone A	**Elevations 1;2;3;54;55;56**												
Elevation 1													
Elevation 2													
Elevation 3													
Elevation 54													
Elevation 55													
Elevation 56													
DCN Entrance	Elevation 52												
RHSC Entrance	Elevation 53												
Zone B	**Elevations 7(part);8;9;10;11**												
Elevation 7 part													
Elevation 8													
Elevation 9													
Elevation 10													
Elevation 11													
Zone C	**Elevations 4;5;6;7(part);57;58;59;47;48;49;50;51**												
Elevation 4													
Elevation 5													
Elevation 6													
Elevation 7 part													
Elevation 57													

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External Spaces Inspections

MULTIPLEX

Edinburgh RHSC & DCN External Spaces inspections	Week No.	Client Check Start Date rev 43_C	135	136	137	138	139	140	141	142	143	144	145
Elevation 58													
Elevation 59													
Elevation 47													
Elevation 48													
Elevation 49													
Elevation 50													
Elevation 51													
Energy Centre		25/09/17											
Roof Areas													
Zone A													
RF 05 01	Sarna Plantroom 005												
RF 05 02	Sarna Plantroom 004												
RF 04 01	Zone A flat roof												
RF 04 02	link												
RF 03 01	Zone A flat roof												
RF 03 02	ETFE												
RF 03 03	ETFE												
RF 03 04	Zone A flat roof												
RF 01 01	RHSC Entrance lobby roof												
RF 01 06	DCN Entrance roof												
Zone B													
RF 05 03	Standing seam roof												
RF 05 04	Sarna roof at west end												
RF 05 05	Standing Seam roof												
RF 05 06	Sarna roof Core 2												
RF 05 07	Standing Seam roof												
RF 02 03	level 2 Terrace												
External Elevations													
Zone C													
RF 05 09	Below Helipad												
RF 04 07	Flat roof / terrace												
RF 04 08	MRI Chiller Plant Terrace flat roof												
RF 02 06	Flat roof												

ENGINEERING SPACES INSPECTIONS

MULTIPLEX

Sequence as WKP43	Edinburgh RHSC & DCN Engineering Spaces inspections		Number of spaces	Week No.	135	136	137	138	139
					11/9/17	18/9/17	25/9/17	2/10/17	9/10/17
Blue ground	Blue Ground	BL-00	11						
	G-D1-044 - Switch Cup	BL-00-01							
	1-D1-040 - Manifold	BL-00-01							
	G-T2-012 - Riser	BL-00-01							
	G-T2-013 - Manifold	BL-00-01							
	G-E1-012A - Switch Cup	BL-00-02							
	G-E1-012B - Manifold	BL-00-02							
	G-T2-010A:E4 - Riser	BL-00-02							
	G-K1-027 - Switch Cup	BL-00-03							
	G-D8-005 - Switch Cup	BL-00-04							
	G-S6-020 - Atrium Clean Equipment	BL-00-04							
	G-T2-011 - Riser	BL-00-06							
Blue first	Blue first	BL-01	7						
	1-D1-039 - Switch Cup	BL-01-01							
	1-T2-013 - Riser	BL-01-01							
	1-D6-058 - Switch Cup	BL-01-02							
	1-T2-015:E4 - Riser	BL-01-02							
	1-D6-059 - Switch Cup	BL-01-03							
	1-T2-019 - Riser	BL-01-03							
	1-T2-020 - Riser	BL-01-04							
Blue second	Blue second	BL-02							
	2-R1-067 - Switch Cup	BL-02-01							
	2-R1-065 - Switch Cup	BL-02-02							
	2-R1-066 - Switch Cup	BL-02-02							
	2-T2-016:E4 - Riser	BL-02-02							
	2-T2-017:V12 - Riser	BL-02-03							
	2-T2-019 - Riser	BL-02-03							
	2-R1-064 - Switch Cup	BL-02-04							
	2-T2-013 - Riser/Switch Cup	BL-02-04							
Blue Third	Blue Third	BL-03	9						
	3-T2-013 - Riser	BL-03-01							
	3-K2-082 - Switch Cupboard	BL-03-02							
	3-K2-084 - Switch Cupboard	BL-03-02							
	3-T2-014:E4 - Riser	BL-03-02							
	3-K2-054 - Switch Cupboard	BL-03-03							
	3-K2-081 - Switch Cupboard	BL-03-03							
	3-K2-083 - Switch cupboard	BL-03-03							
	3-T2-015:V12 - Riser	BL-03-03							
	3-T2-019 - Riser	BL-03-03							
Blue Fourth	Blue Fourth	BL-04	2						
	4-PLANT-005 - Plant Room 05	BL-04-Plant-004							
	4-PLANT-004 - Plant Room 05	BL-04-Plant-005							
Basement	Basement	BL2-B	45						
	B-PLANT-001C - Plant Room 15	BL2-B-01							
	B-S1-028 - Switch Cupboard	BL2-B-02							
	B-S1-029 - Switch Cupboard	BL2-B-02							
	B-S6-010 - WC - Staff	BL2-B-03							
	B-V1-001 - Confidential Waste	BL2-B-03							
	B-S3-030 - Switch Cupboard	BL2-B-04							
	B-S6-025 - Trolley Holding Bay	BL2-B-04							
	B-T2-005 - Riser	BL2-B-04							
	B-T2-007 - Riser Access	BL2-B-04							
	B-S6-003 - BMS Room	BL2-B-05							
	B-S6-004 - Workshop (NPD)	BL2-B-05							
	B-S6-011 - Supervisors	BL2-B-05							
	B-S6-012 - Estates Library	BL2-B-05							
	B-S6-013 - Management / Help Desk	BL2-B-05							
	B-S6-014 - Store	BL2-B-05							
	B-S6-015 - Contract Manager	BL2-B-05							
	B-S6-017 - Corridor	BL2-B-05							
	B-S6-019 - WC - Staff	BL2-B-05							
	B-S6-006 - Staff Changing	BL2-B-CORE 8							
	B-S6-007 - Shower	BL2-B-CORE 8							
	B-S6-008 - Shower	BL2-B-CORE 8							
	B-S6-009 - Workshop (NHSL)	BL2-B-CORE 8							
	B-S6-021 - WC - Staff	BL2-B-CORE 8							
	B-S6-050 - Staff Welfare	BL2-B-CORE 8							
	B-T2-001 - Riser	BL2-B-CORE 8							
	B-T2-002 - Riser	BL2-B-CORE 8							
	B-T2-003 - Riser	BL2-B-CORE 8							
	B-T2-004 - Riser	BL2-B-CORE 8							
	B-T2-006 - Riser	BL2-B-CORE 8							
	B-T2-011 - Riser	BL2-B-CORE 8							
	B-V1-002 - WEEE/Furniture/White Goods	BL2-B-CORE 8							
	B-PLANT-004 - Plant Room 15	BL2-B-CWS Tank							
	B-PLANT-003 - Plant Room 15	BL2-B-Heatstation 1							
	B-PLANT-012 - Plant Room 15	BL2-B-Heatstation 2							
	B-PLANT-015B - Heat Station 3	BL2-B-Heatstation 3							
	B-PLANT-002 - Plant Room 15	BL2-B-Heatstation 4							
	B-PLANT-001A - Plant Room 15	BL2-B-HV/LV Switchroom 1A/1B							
	B-PLANT-001B - Plant Room 15	BL2-B-HV/LV Switchroom 1A/1B							
	B-PLANT-007A - Plant Room 15a	BL2-B-HV/LV Switchroom 2A/2B							
	B-PLANT-007B - Plant Room 15b	BL2-B-HV/LV Switchroom 2A/2B							
	B-PLANT-016 - Plant Room 15	BL2-B-HV/LV Switchroom 2A/2B							
	B-PLANT-015A - PTS Plantroom	BL2-B-PTS Plant Room							
	B-PLANT-009 - Plant Room 15	BL2-B-Sprinkler Tank							
	B-PLANT-005 - Plant Room 15	BL2-B-UPS							
Energy centre	Energy centre	BL3-EC	24						
	G-X1-001 - EC: Plant Room 1	BL3-EC-Boilers							
	G-X1-005 - HV Plant	BL3-EC-Generator HV Swc Room							

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ENGINEERING SPACES INSPECTIONS

MULTIPLEX

Sequence as WKP43	Edinburgh RHSC & DCN Engineering Spaces inspections		Number of spaces	Week No.	135 11/9/17	136 18/9/17	137 25/9/17	138 2/10/17	139 9/10/17
	G-X1-002 - EC: Plant Room 2	BL3-EC-Generators/CHP							
	G-X1-004 - HV Generator	BL3-EC-Generators/CHP							
	G-X1-006 - HV Plant	BL3-EC-Main HV Switch Room							
	M-X1-005 - Mezz Plant 1	BL3-EC-Mezz							
	- - Oil Tank 1	BL3-EC-Oil Tanks							
	- - Oil Tank 2	BL3-EC-Oil Tanks							
	G-X1-003 - HV Generator Control Room	BL3-EC-Scottish Power Room							
	G-S6-016 - Office / Reception	BL3-EC-Stair/Lift/Chem/Office							
	G-S6-022 - WC - Staff	BL3-EC-Stair/Lift/Chem/Office							
	G-S6-023 - Chemical Store	BL3-EC-Stair/Lift/Chem/Office							
	G-S6-024 - Trolley Holding Bay	BL3-EC-Stair/Lift/Chem/Office							
	- - VIE Enclosure	BL3-EC-VIE							
	G-Y1-001 - Clinical Waste - Dirty (360L & 770L Bins)	BL3-EC-Waste Area							
	G-Y1-002 - General Waste (10 x 360L Bins)	BL3-EC-Waste Area							
	G-Y1-003 - Manifold Store	BL3-EC-Waste Area							
	G-Y1-004 - Kitchen Waste	BL3-EC-Waste Area							
	G-Y1-005 - Clinical Waste - Clean (360L & 770L Bins)	BL3-EC-Waste Area							
	G-Y1-007 - Circulation	BL3-EC-Waste Area							
	G-Y1-008 - Bottle Store	BL3-EC-Waste Area							
	G-Y1-009 - Recycling (10 x 240L Bins)	BL3-EC-Waste Area							
	G-Y1-010 - Holding Area (27 x Linen Trolleys)	BL3-EC-Waste Area							
	G-Y1-011 - Fork Lift Charging	BL3-EC-Waste Area							
Green Ground		GR-00	23						
	G-A1-071 - Switch Cupboard	GR-00-01							
	G-A1-070 - Switch Cupboard	GR-00-02							
	G-A3-005 - Switch Cupboard	GR-00-02							
	G-T2-017 - Riser	GR-00-02							
	G-A2-088 - Switch Cupboard	GR-00-03							
	G-A2-089 - Switch Cupboard	GR-00-03							
	G-T2-005:V5 - Riser	GR-00-03							
	G-T2-006:M2 - Riser	GR-00-03							
	G-T2-007:E2 - Riser	GR-00-03							
	G-A2-086 - Switch Cupboard	GR-00-04							
	G-J2-007 - Switch Cupboard	GR-00-04							
	G-F1-095 - Switch Cupboard	GR-00-05							
	G-F1-102 - E-S Duct 1	GR-00-01							
	G-F1-103 - E-S Duct 2	GR-00-01							
	G-F1-104 - E-S Duct 3	GR-00-01							
	G-F1-105 - E-S Duct 4	GR-00-01							
	G-F1-106 - E-S Duct 5	GR-00-01							
	G-F1-107 - E-S Duct 6	GR-00-01							
	G-F1-108 - E-S Duct 7	GR-00-01							
	G-F1-109 - E-S Duct 8	GR-00-01							
	G-T2-009 - Riser	GR-00-05							
	G-F1-094 - Switch Cupboard	GR-00-06							
	G-T2-014 - Plant	GR-00-06							
Green First		GR-01	10						
	1-L1-106 - Switch Cupboard	GR-01-01							
	1-T2-012 - Riser	GR-01-01							
	1-T2-021 - Spare	GR-01-01							
	1-L1-107 - Switch Cupboard	GR-01-02							
	1-T2-008 - Riser	GR-01-02							
	1-T2-006 - Riser	GR-01-03							
	1-T2-007 - Riser	GR-01-03							
	1-B1-089 - Switch Cupboard	GR-01-04							
	1-T2-003:V2 - Riser	GR-01-04							
	1-H2-027 - Switch Cupboard	GR-01-05							
Green Second		GR-02	14						
	2-T2-006: E2 - Riser	GR-02-01							
	2-T2-007: M2 - Riser	GR-02-01							
	2-T2-008: V5 - Riser	GR-02-01							
	2-L2-150 - Switch Cupboard	GR-02-02							
	2-L2-154 - Switch Cupboard	GR-02-02							
	2-T2-012 - Riser	GR-02-02							
	2-T2-021 - Spare	GR-02-02							
	2-L2-149 - Switch Cupboard	GR-02-03							
	2-M2-026 - Switch Cupboard	GR-02-05							
	2-T2-003 - Riser	GR-02-05							
	2-T2-004 - Riser	GR-02-05							
	2-T2-005 - Riser	GR-02-05							
	2-M4-021 - Switch Cupboard	GR-02-06							
	2-M4-022 - Switch Cupboard	GR-02-06							
Green Third		GR-03	10						
	3-D9-031 - Switch Cupboard	GR-03-01							
	3-T2-012 - Riser	GR-03-01							
	3-C1.1-072 - Switch Cupboard	GR-03-03							
	3-T2-006 - Riser	GR-03-03							
	3-T2-007 - Riser	GR-03-03							
	3-C1.2-046 - Switch Cupboard	GR-03-04							
	3-T2-003 - Riser	GR-03-04							
	3-T2-004 - Riser	GR-03-04							
	3-T2-005 - Riser	GR-03-04							
	3-C1.8-038 - Switch Cupboard	GR-03-05							
Orange Ground		OR-00	14						
	G-M1-052 - Switch Cupboard	OR-00-01							
	G-T2-002 - Riser	OR-00-02							
	G-T2-003 - Riser	OR-00-02							
	G-T2-004 - Riser	OR-00-02							
	G-T2-016 - Riser	OR-00-02							
	G-N1-008 - Manifold	OR-00-03							

ENGINEERING SPACES INSPECTIONS

MULTIPLEX

Sequence as WKP43	Edinburgh RHSC & DCN Engineering Spaces inspections		Number of spaces	Week No.	135 11/9/17	136 18/9/17	137 25/9/17	138 2/10/17	139 9/10/17
	G-Q1-156 - Switch Cupboard	OR-00-03							
	G-Q1-157 - Switch Cupboard	OR-00-04							
	G-Q1-158 - Switch Cupboard	OR-00-04							
	G-T2-003 - Riser	OR-00-04							
	G-Q1-155 - Switch Cupboard	OR-00-05							
	G-T2-015 - Riser	OR-00-07							
	G-T2-008 - Riser	OR-00-08							
	G-T2-009 - Riser	OR-00-08							
Orange First		OR-01	16						
	1-T2-009 - Riser	OR-01-02							
	1-T2-010 - Riser	OR-01-02							
	1-T2-011 - Riser	OR-01-02							
	1-T2-016 - Riser	OR-01-02							
	1-T2-017 - Riser	OR-01-02							
	1-P1-191 - Switch Cupboard	OR-01-03							
	1-P1-192 - Switch Cupboard	OR-01-03							
	1-T2-014:V6 - Riser	OR-01-04							
	1-P1-182A - Switch Cupboard	OR-01-06							
	1-T2-018 - Riser	OR-01-06							
	1-P1-182B - Switch Cupboard	OR-01-07							
	1-T2-001 - Riser	OR-01-07							
	1-T2-002 - Riser	OR-01-07							
	1-T2-004 - Riser	OR-01-07							
	1-T2-005 - Riser	OR-01-07							
	1-T2-022 - Riser	OR-01-07							
Orange Second		OR-02	12						
	2-T2-001 - Riser	OR-02-02							
	2-T2-002 - Riser	OR-02-02							
	2-T2-020 - Riser	OR-02-02							
	2-T2-009 - Riser	OR-02-Core 3							
	2-T2-010 - Riser	OR-02-Core 3							
	2-T2-011 - Riser/Switch Cupboard	OR-02-Core 3							
	2-T2-014 - Riser	OR-02-Core 3							
	2-T2-022 - Riser	OR-02-Core 3							
	2-T2 - Plantroom	OR-02-PLANT1							
	2-T2-018 - Riser	OR-02-PLANT2							
	2-PLANT-001 - Theatre Plant Room	OR-02-PLANT3							
	2-PLANT-001 - Theatre Plant Room	OR-02-PLANT4							
Orange Third		OR-03	12						
	3-C1.4-070 - Switch Cupboard	OR-03-01							
	3-COR-020 - Switch Cupboard	OR-03-04							
	3-T2-018 - Riser	OR-03-04							
	3-COR-018 - Switch Cupboard	OR-03-05							
	3-T2-001 - Riser	OR-03-05							
	3-T2-002 - Riser	OR-03-05							
	3-T2-017 - Riser	OR-03-05							
	3-T2-008 - Riser	OR-03-Core 3							
	3-T2-009 - Riser	OR-03-Core 3							
	3-T2-010 - Riser	OR-03-Core 3							
	3-T2-011 - Riser	OR-03-Core 3							
	3-T2-020 - Riser	OR-03-Core 3							
Purple Fourth		PU-04	23						
	4-PLANT-006 - Plant Room 06	PU-04-PLANT-006							
	4-S7-012 - Switch Cupboard	PU-04-01							
	4-R2-009 - Switch Cupboard	PU-04-02							
	4-T2-001 - Riser	PU-04-02							
	4-T2-004 - Riser	PU-04-02							
	4-T2-008 - Riser	PU-04-02							
	4-T2-018 - Riser	PU-04-02							
	4-R1-022 - Switch Cupboard	PU-04-03							
	4-R1-023 - Switch Cupboard	PU-04-03							
	4-T2-004 - Riser	PU-04-03							
	4-T2-005 - Riser	PU-04-03							
	4-T2-006 - Riser	PU-04-03							
	4-T2-007 - Riser	PU-04-03							
	4-H1-034 - Switch Cupboard	PU-04-04							
	4-T2-003 - Riser	PU-04-04							
	4-T2-009 - Riser	PU-04-Core 3							
	4-T2-010 - Riser	PU-04-Core 3							
	4-T2-011 - Riser	PU-04-Core 3							
	4-T2-017 - Riser	PU-04-Core 3							
	4-PLANT - External Plant Compound	PU-04-External Plant							
	4-PLANT-003 - Helipad Fire Suppression Plant	PU-04-Plant-003 Heli Fire Supp.							
	4-T3-001 - Plant Room 06	PU-04-Plant-T3-001							
	4-T3-002 - Plant Room 06	PU-04-Plant-T3-002							
Roof Fifth		Roof	3						
Roof	5-PLANT-001 - External Roof Plant Core 2 Riser M1	roof							
Roof	5-PLANT-002 - External Roof Plant Riser M2	roof							
Roof	5-Solar - Solar Panels	roof							

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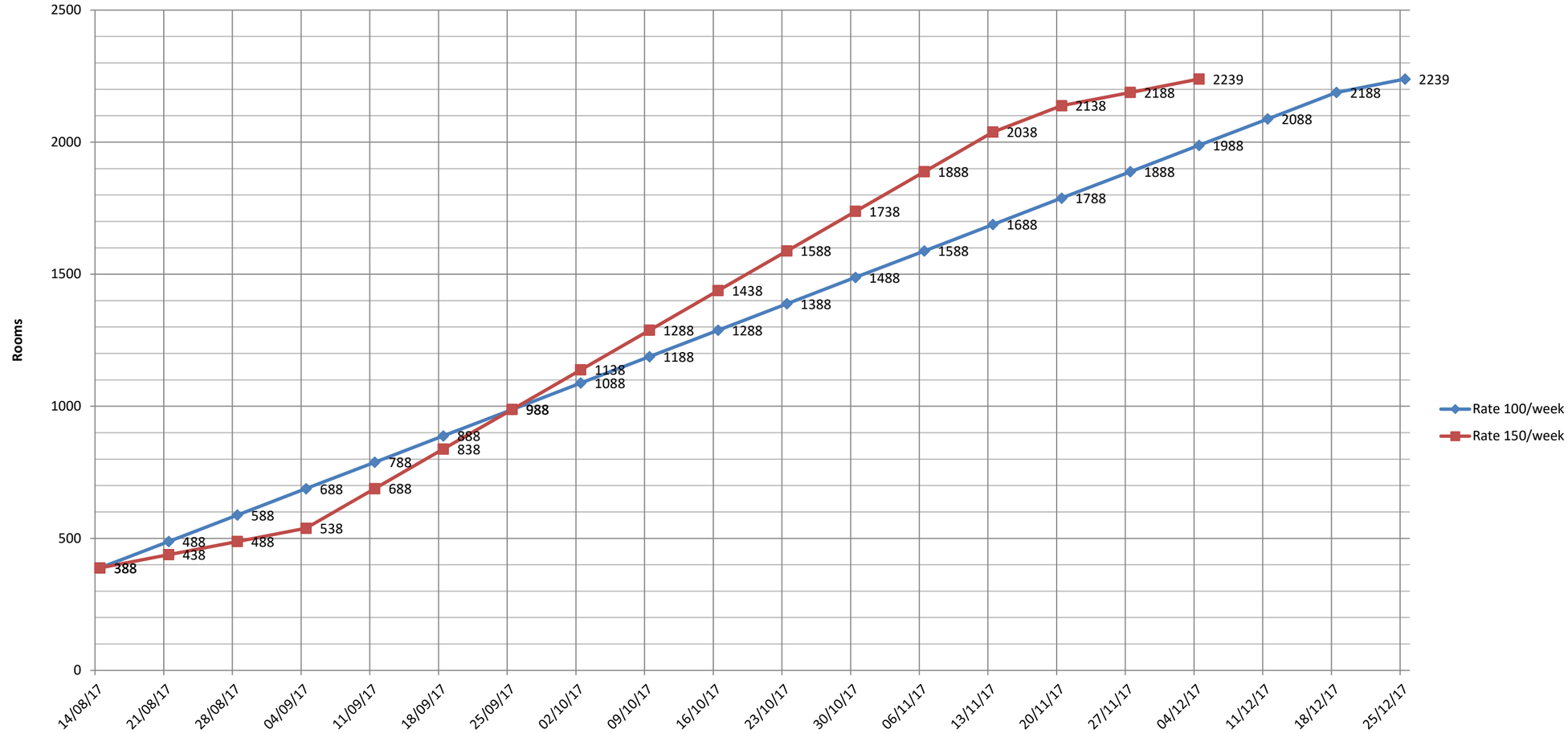
Client Room Inspections

RHSC & DCN



	14/08/17	21/08/17	28/08/17	04/09/17	11/09/17	18/09/17	25/09/17	02/10/17	09/10/17	16/10/17	23/10/17	30/10/17	06/11/17	13/11/17	20/11/17	27/11/17	04/12/17	11/12/17	18/12/17	25/12/17
Rate 100/week	388	488	588	688	788	888	988	1088	1188	1288	1388	1488	1588	1688	1788	1888	1988	2088	2188	2239
Rate 150/week	388	438	488	538	688	838	988	1138	1288	1438	1588	1738	1888	2038	2138	2188	2239			

Date

p) Suitable means of shelter against adverse weather conditions at entrances, bus / transport waiting, and drop off locations and covered links provided, as appropriate;

q) Automatic vehicle access barriers, as appropriate; and

r) Fire hydrants.

All hardstanding, Site roads, paths, car parks, cycleways, and footpaths etc shall be designed and constructed so as to be free from standing water.

8 Mechanical & Electrical Engineering Requirements

Project Co shall provide the Works to comply with the Environmental Matrix.

Project Co shall in carrying out the Works comply with the following non-exhaustive list of mechanical & electrical requirements.

Project Co shall provide mechanical and electrical systems that help create a “state-of-the-art” building with innovative design. Project Co shall provide an engineering system that utilises the latest technology to create a high quality working environment that will provide a reassuring, enjoyable and convenient hospital for all patients, their families, visitors and staff. Project Co shall ensure the services network is efficient, effective, flexible and unobtrusive. Project Co shall ensure that the system is easy to maintain and shall maximise the opportunities for flexible adaptation and extension of the Facilities.

Electrical, mechanical and communication services shall be designed to be an integral and co-ordinated part of the design. Services shall be clearly identified at regular intervals and at all locations where maintenance access is required.

The location of engineering and utility services shall be co-ordinated with the structure and not constrain or conflict with Operational Functionality. Access to all services shall facilitate ease of maintenance which shall be safe and able to be effectively undertaken. There shall be provision for space to give flexibility for future re-planning and / or re-modelling of the Facilities.

The Board requires the buildings to be designed to achieve an optimum level of autonomy along with energy and utility utilisation. The energy centre shall be for the sole use of the Facilities. The services provided from the energy centre shall be provided from sources solely on the Site.

Project Co shall take cognisance of all the building services implications of the requirements described in the Board’s Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

For the avoidance of doubt the hierarchy of standards and advice detailed in paragraph 2.5 shall apply to this paragraph 8.

8.1 Minimum Engineering Standards

In addition to the publications in paragraph 2 of this Sub-Section C Project Wide Requirement, Project Co shall ensure that the design, construction and selection of components for the mechanical and electrical works comply with, including but not limited to, the following design reference documents :

From: Brown, Maureen [Maureen.Brown@[redacted] on behalf of Brown, Maureen
Sent: 03 July 2014 09:42
To: Ken Hall [ken.hall@[redacted] Greer, Graeme [graeme.greer@[redacted]
Cc: Stewart.McKechnie@[redacted] [Stewart.McKechnie@[redacted]
Subject: RHSC + DCN | Environmental Matrix - Excel Version

Hi Ken,

We only have it in pdf, to assist we have asked NHSL to request in excel from H&K.

We will issue to you upon receipt.

Kind regards,

Mo

From: Ken Hall [mailto:Ken.Hall@[redacted]
Sent: 03 July 2014 09:00
To: Brown, Maureen; Greer, Graeme
Cc: Stewart.McKechnie[redacted]
Subject: Environmental Matrix - Excel Version

Good morning Mo / Graeme

Stewart has asked if he could have the environmental matrix in excel rather than pdf version to allow to populate the schedule with any changes.

Is this something you could help us with?

Ken

Please consider the environment before printing this e-mail.

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RHSC / DCN Environmental Matrix

A1 - A4 Front Door - A/E / Assessment Ward

Hulley Kirkwood

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
A1	Emergency Department	Entrance, Reception & Waiting	Main Entrance Draught Lobby	2	10.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: 6 wheelchairs	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: 3 accident trolleys & 3 wheelchairs	1	12.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception:2 staff	1	16.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area inc Play Area	1	63.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	4.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
		Treatment Facilities	Triage Room	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room: Dual Access (Mental Health)	10	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room: Single Access	4	14.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Plaster Suite (2 bays)	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store - Plaster	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff & Communication Base	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Supplies Base	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Washdown Room	1	16.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			General X-Ray Room	1	33.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Processing Room	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Changing Cubicle	1	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Patient Resuscitation Facilities	Resuscitation Room: 2 places	2	50.0	Resusitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	2
		Distressed & Bereaved Persons Facilities	Sitting Room	1	16.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Body Viewing Room	1	10.0	Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	Not Applicable	0	100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Support Facilities: Clinical	Laboratory - Near Patient Testing / Status	1	8.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Staff Support Facilities	Pantry - Staff / Patient	1	5.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Staff Support Facilities: Sanitary & Changing	WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Shower: ambulant	2	2.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male Staff Changing Room and Lockers: 20 places	1	11.5	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Female Staff Changing and Lockers: 30 places	1	16.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consultants Office (6 Person)	1	24.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Staff / Audit / SECY Office	1	17.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview/Meeting Room: 6 persons	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Support Facilities: Holding & Storage	Store - Equipment & Supplies	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Stock & Sterile Supplies	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dispensing Drugs	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Major Incident / Ambulance Equipment	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Medical Gas Cylinders	1	3.0	Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Facilities: Miscellaneous	Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			IPS Room	1	1.1	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		4 Hour Observation Area (4 beds)	4 Bed Room	1	63.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Seasonal Additional Capacity (6 beds)	Single Bedroom	6	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	6	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Medical Assessment Area (22 beds)	Reception/Staff Base	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	4	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Isolation Bed Room	1	17.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bedroom (RHSC)	13	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	14	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent Assessment Area (2 beds)	Single Bedroom (RHSC)	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
A2	Paediatric Acute Receiving Unit - 34 Beds	Shared Support	Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Dining / Play Room	1	37.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Patint Interview Room	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			On-Call Consultant Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	26.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clinical Coordinators Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	10.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	2	1.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
A3	PARU / Emergency / Radiology Shared Support	NA	Meeting / Case Conference Room	1	32.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Seminar & Training Room	1	32.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room	1	80.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Royal Hospital for Sick Children and Department for Clinical Neurosciences - Edinburgh

Reference Design Envisaged Solution - RHSC / DCN RDS Environmental Matrix

hulley & kirkwood consulting engineers

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27	T1	Plant
28	U1	Shelled Space

Rev	By	Description	Date
First Issue	JMcM	First Issue Based on Schedule of Area V8	03.02.12
Second Issue	JMcM	Second Issue Based on Schedule of Area V10 Ward Room T Max Reduced from 28 to 25 Degrees Celsius Revised to suit NHSL Comments	13.03.12
Third Issue	JMcM	Third Issue Based on Schedule of Area V13	19.09.12

Environmental Matrix - Guidance Notes

1 This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets.

2 The services matrices are produced from the NHS Lothian Schedule of Accommodation Sheets Version 13 issued 19th September 2012.

3 The design of the HVAC systems to the theatres shall be in accordance with SHTM 03-01.

4 Where radiant panels are indicated in any room in these matrices, detailed design development may remove the need for these without detriment to environmental temperature. This design development is dependant on actual room layout - i.e. whether a room is located adjacent to an external wall, ground bearing floor, roof surface or is internal.

5 Ventilation air change rates and the use of natural ventilation in Patient Areas shall be reviewed throughout the detail design process to ensure a maximum internal temperature of 25°C (dry bulb) is not exceeded during normal occupancy. This criteria shall also apply to cellular and open plan office spaces.

6 Maximum internal temperatures listed relate to normal occupancy and Summer Design Conditions ; External Summer Conditions for Cooling Plant Selection as per SHTM2025,Enthalpy 54kJ/kgda.26degC db,19degC wb. External Winter Conditions as per CIBSE Guide A Table A 2.2 for locality = - 6C for Heat Losses, and as SHTM 2025 for locality = -10C for AHU Ventilation Plant design.

7 Examination lamp notes where listed are provisional. Detailed requirements (fixed, mobile, illumination) will be detailed on C sheets as agreed from signed off 1:50 RDS, which shall take precedence over this schedule.

8 All lighting levels are derived from CIBSE Lighting Guide LG2. Client briefing may take precedence over Environmental Matrix.

9 Colour rendering refers to CIBSE Lighting Design Guide and will be applied throughout

"80" : Normal
"90" - Enhanced to provide close as possible match to natural light for clinical purposes

10 Thermostatic Mixing Devices - SHTM 04-01 Guidance shall be employed for specific TRV Type versus listed Area/Activity.

11 Standby Lighting to be Grade A throughout .

12 The internal temperature in naturally or mechanically ventilated rooms shall not exceed the maximum temperature as listed on these Environmental Matrices provided external summer design criteria is not exceeded .

13 Local Radiant Panel TRV's shall be tamper proof head type with limiting/locking facility.

14 Local Control BMS Temperature Sensors for ducted reheat zones and chilled water cassettes for hotspots shall be provided with local range adjustment to +/- 2C of BMS Set Point. BMS set point shall be adjustable via operator/user dialogue through formal

15 **Typical bedroom** - Design Criteria - SHTM 03-01 Clause 2.11 - internal temperatures in patient areas should not exceed 28C db for more than 50 hrs per year. Appendix 1 SHTM 03-01 gives 18C to 28C float range. NHSL however require that the maximum internal design temperature is 25C

HDU bed areas - Design Criteria - HBN 57 gives specific guidance as well as SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply, 18C to 25C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions).

The department should be air conditioned and controlled on a zonal basis.

Central AHU plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Post theatre recovery areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 15ac/hr S&E , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions).

Central AHU plant requires humidification to achieve RH range during winter.

Critical Care areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions). NHSL may require specific rooms to have a control range up to 28C

Central Air Handling Plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Theatre areas - Design Criteria -SHTM 03-01 - esp Appendix 1 and 2 for air change rates Appendix 3 for design logic and pressure cascade criteria, 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions). SHTM 03-01 advises Humidification is no longer to be provided for theatres ventilation as a matter of course. Users to verify any specific requirements depending on clinical requirement. Space in plant rooms should be provided together with blank section within air handling units for future provision. NHSL may require specific rooms to have a control range up to 28C

16 **Corridor** ventilation may be either mechanical or where the opportunity exists natural. To be determined during detailed design with due regard to clinical functionality.

17 **Single Room WC** - SHTM 03-01 Appendix 1 suggests 3ac/hr extract air change rate only. HK have applied 10ac/hr extract rate to provide a more robust rate of extract.

18 **Diagnostic Rooms** - (X Ray, CT Scanner, MRI Scanners, Gamma Camera) - air change rates listed at 8ac/hr. Actual air change rate must be derived through room heat gain analysis and actual equipment guidance.

19 **Operating Theatre Laminar Flow/UCV Requirements -** Refer to Operational Policy Documents for specific theatres which require Laminar Flow/UCV canopy style ventilation solution. Note specific requirements for screenless canopies to avoid conflict with particular surgeon instruments/microscopes.

20 **Small workshop Areas -** Local Extract Ventilation (LEV) unit requirement to be determined from room equipment schedules

21 **Note that Isolation Suite ventilation solutions for this project shall follow HBN 4 Supplement 1 Section 4 Item 4.8 Guidance i.e.**
A common departmental AHU shall be employed to provide supply air ventilation (and shall therefore employ duty & standby motors)
Isolation Rooms En Suite Extracts shall be provided with an independent Isolation Room toilet extract ventilation system.
Isolation Rooms En Suite Extracts shall be provided with either externally located 3 mtr high discharge stack in a safe location or with extract filters (H14) within a safe change housing outside the building on the suction side of the fan.
Heating & Cooling Isolation Suites shall be provided via the ventilation system.

22 **Retail Provision -** Service provisions listed are Infrastructure only for future fit-out by retailer

23 **Comfort Cooled Fresh Air -** Where noted as such on the matrices, this means as provided via departmental air handling plant via chilled water cooling coils.

Room Function Reference Sheet.
The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

	Temperature		Heating		Cooling Present	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
Room Function	Design Maximum deg C	Design Minimum deg C	Type	Control		Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable		300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41		100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes			43	41		300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	Not Applicable	Not Applicable		200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable		300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41		300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41		200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60		300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	None		300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
HDU	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		400	10 to 20	1000	A	90	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	2
IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable		300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60		500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable		300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Patient Accommodation Day	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	Not Applicable		100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable		300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable		200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable		200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable		300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant		F7	43	Not Applicable		200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Resuscitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	2
Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable		200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41		100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	Not Applicable		500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
Operating Theatre DCU	28	18	Adjacent Space Transfer Air	None	No	None	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	Balanced	None	43	41		100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	2
Operating Theatre Recovery	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	Balanced	F7	43	41		500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	2
Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable		100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable		100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable		500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable		100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable		300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Open Plan Office	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable		300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Equipment Decontamination	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		200	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41		200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
Isolation Bedroom En-suite	25	18	Adjacent Space Transfer Air	None	No	None	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	None	43	41		200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	
IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable		200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
B1	PICU and HDU's - 24 Beds	NA	Waiting Area (Visitors)	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Public Telephone Booth	1	2.0	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Reception	1	7.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Data Manager & Secretarial Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		PICU - 8 Beds	Staff Base	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Bed Isolation Cubicle	2	26.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Gowning Lobby	2	6.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bed Cubicle	2	26.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Low Acuity - 6 Beds	Staff Base	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Bed Cubicle	1	26.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Gowning Lobby	1	6.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Open Plan Bay (4 beds)	1	80.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Neonatal HDU - 4 Cots	Staff Base	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Bed Cubicle	1	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Open Plan Bay (3 cots)	1	45.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		High Acuity - 6 Beds	Staff Base	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Cot Cubicle	1	26.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Gowning Lobby	1	6.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Shared Support	Clean Utility	1	18.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	19.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Laboratory	1	10.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Pantry / Milk Store	1	10.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	5.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Play Specialist Base & Store	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	3	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Relatives' Sitting Room	1	18.5	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Relatives	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Relative Overnight Stay Room	2	10.0	Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Quiet / Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Family Interview Room	1	12.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Bulk Supplies Store	1	55.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	40.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bed/Patient Chair / Buggy Storage	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Retrieval Equipment Store	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Service Room	1	24.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Gas Cylinder Store	2	2.0	Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Cardiac Echo/ECG Bay	1	4.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Mobile X-Ray / Ultrasound Bay	1	4.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			X-Ray Processing	1	8.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	4	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			On-Call Consultant Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Retrieval Team Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Senior Nursing Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multidisciplinary Work Area PICU	1	15.0	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multidisciplinary Work Area HDU	1	15.0	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Seminar Room	1	37.5	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			IPS Room	1	2.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	3.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff Room	1	32.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) **Linen Bay recess to be treated as part of room.**
b) **Mobile Equipment Bay Recess to be treated as part of room**
c) **Ressuc Trolley Area Recess to be treated as part of room**
d) **Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.**
e) **Reception & Waiting Combined**
f) **Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year**
g) **Offices assumed to have openable windows without 100mm restrictors for natural ventilation .**
h) **Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.**

C1 - C5 RHSC In patient Pathway / Ward Care

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting								Medical Location
							Design Maximum	Design Minimum	Type	Control	Present	Type	Type	Supply	Extract	Relative	Min	Surface	Water		Normal	Night	Local	Standby	Colour	Control	Plane	Notes	Group
							deg C	deg C						ac/hr	ac/hr	Pressure	Filtration	deg C	deg C		lux	lux	lux	Grade	Rendering				
C1.1	Medical Inpatients - 23 Beds	NA	Reception / Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Medical (16 beds)	Single Bedroom	5	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom	3	17.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	3	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	8	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Transitional Care (4 beds)	Single Bedroom (RHSC)	3	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom (RHSC)	1	19.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite trolley shower	4	8.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sitting Room / Lounge	1	16.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent (3 beds)	Single Bedroom	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Touchdown Base	2	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	20.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	3.0	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - back up clothing	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Mobile X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	1.8	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
C1.2	Surgical Long Stay Inpatients -15 Beds	NA	Reception / Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Surgical (10 beds)	Single Bedroom	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wetroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent (5 beds)	Single Bedroom (RHSC)	5	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	5	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Discharge Lounge	1	20.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
C1.3	Neuroscience Inpatients - 12 Beds	NA	Touchdown Base	2	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Patient Interview Room	1	9.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	16.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Snoezelen Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			WC Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Rehabilitation Room	1	30.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Waiting Area	1	12.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Reception / Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		NA	Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Paediatric Beds (7)	Single Bedroom (RHSC)	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom (RHSC)	4	17.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	4	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	7	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting								Medical Location
							Design Maximum	Design Minimum	Type	Control	Present	Type	Type	Supply	Extract	Relative	Min	Surface	Water		Normal	Night	Local	Standby	Colour	Control	Plane	Notes	Group
							deg C	deg C						ac/hr	ac/hr	Pressure	Filtration	deg C	deg C		lux	lux	lux	Grade	Rendering				
C1.4	Haematology / Oncology Inpatients & Daycases - 17 Beds & 2 Chairs	Day Facilities (7 beds & 2 chairs)	Multi Bed Room: day care, 4 beds & 2 chairs	1	72.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bedroom (RHSC)	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	12.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Clean Utility	1	16.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
		Adolescent Beds (3)	Single Bedroom	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Kitchen/ Lounge/Social Space	1	25.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Quiet Room / Study	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Ward Support Areas	Treatment / Clean Utility	1	18.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Complementary Therapy Room	1	10.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Consultant Office (5 Person Microscope)	1	25.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Staff Office	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Nursing Staff Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Research Staff Office	1	19.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Play Room	1	25.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pharmacy Base	1	9.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C1.5	Med / Surg / Neuro / Haemo Shared Support	NA	Family Sitting Room	1	27.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Breast Pump Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Baby Infant / Feeding Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			WC-Wheelchair Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
C1.6	Adolescent Shared Accommodation	NA	Dining / Recreation Room	1	26.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Quiet Room / Study	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C1.7	Paediatric Neurophysiology	NA	EEG Recording Room	2	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Evoked Potential Recording Room	1	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			EEG Review Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C1.8	Surgical Short Stay Inpatients - 14 Beds	NA	Reception Desk/Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	15.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Surgical Assessment Area (12 beds)	Single Bedroom	4	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	4	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent Assessment Area (2 beds)	Single Bedroom (RHSC)	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patient Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			WC Wheelchair Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
C2	Wards Support Areas	NA	Staff Room	1	48.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Grab & Go	1	10.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Seminar Room	1	25.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C3	Special Feeds Unit	NA	Food Prep Area	1	24.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Store - Feeds	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Office / Ante-Room	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Wash Room	1	5.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
C4	Sleep Lab	NA	Sleep Room	2	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parents Room	2	10.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Control Room	1	15.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
C5	Classrooms	NA	Primary Classroom	1	18.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Upper Primary Classroom	1	18.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Secondary Classroom	1	18.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resource Storage	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Administration Area	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Ambulant	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	3.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
D1	RHSC Main Outpatients Department		Consult/Examination	10	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Child Protection Room	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination (Child Protection)	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Multi-Disciplinary	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room (with prep area)	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Plaster Suite (3 bays)	1	40.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store: Plaster	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Orthotics Workshop	1	16.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Equipment / General Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store Room	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physical Measurement	2	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Infant Measuring Room	1	6.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Suite A	Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Phlebotomy Room	1	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Specimen/ Disabled WC	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Fully accessible changing room	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Baby Infant / Feeding Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
		Consulting Suite B	Sub Waiting Area (incl supervised play) with																									
			Nurse Base	1	46	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Sub Waiting Area	1	3.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Reception	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consult/Examination	4	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination (Ophthalmology)	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Multi-Disciplinary	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Equipment / General Store	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Play Therapy (inc messy play) Room	1	18.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Physical Measurement	2	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Infant Measuring Room	1	6.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Shower Room	1	5.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consult/Examination (Cleft)	2	18.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination (ENT)	3	17.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store Room	1	1.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room (with prep area)	2	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Support Suite B	Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Phlebotomy Room	1	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Baby Infant / Feeding Room	1	4.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
		Shared (All Suites)	Outpatients Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room	1	15.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
D2	Cardiology & Respiratory	NA	Waiting Area	1	9.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Storage Equipment	1	9.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Staff	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Cardiology	ECG Procedure Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Echocardiography Room	1	20.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Exercise Tolerance Test Room	1	20.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Admin Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Respiratory	Lung Function Laboratory	1	28.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Exercise Room/Lung Function Laboratory	1	22.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admin Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Domiciliary Sleep Studies	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
D3	Orthoptics	NA	Staff Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Parking bay:pushchairs/prams	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC & handwash: specimen; wheelchair	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Examination Room: Fields test	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			C/E Orthoptic (6 metre room)	4	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
D4	Audiology	NA	Waiting Area	1	13.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Area	1	3.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Testing/Clinic Rooms	2	21.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Obs/Control	2	8.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			ABR Room	1	16.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Test Room	1	16.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Work Room	1	12.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
			Mould Room	1	9.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shared Staff Office	1	32.8	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
D5	Paediatric Dentistry	NA	Surgeries (standard)	3	18.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Surgery (multi-disciplinary)	1	20.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Recovery	1	10.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Laboratory	1	10.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clean Utility / Dental Store	1	23.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Mobile Inter-oral Storage	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
D6	RHSC Therapies	Clinical Rooms	Rehabilitation Room	4	30.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Rehabilitation Room (inc CV equip)	1	39.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Standard Treatment Room	3	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room (OT equip)	1	20.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Infant Measuring Room	1	6.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Standard Distraction Free Treatment Room	2	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Large Distraction Free Treatment Room	1	20.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Dietetic Clinic Room	2	12.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Splinting / Casting Room	1	18.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Offices/Workstations	Management Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Office - All specialties (39 person)	1	159.9	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	1	6.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	4	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			A&C Staff Office/Appliance Officer	1	36.9	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Rooms	Reception	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Play Area	1	33.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - assisted (large+changing)	1	12.3	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - OT	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - OT	1	16.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - OT	1	2.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - SALT	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dietetic	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dietetic	1	1.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dietetic	1	1.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	24.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	8.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	3.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	13.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - TIP	1	4.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Decontamination	1	10.0	Equipment Decontamination	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	200	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
D7	Plastics Dressings Clinic	NA	Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Dressings / DopplerStore	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sluice	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Telephone Booth	1	4.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	o Guidance	o Guidance	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dressings Room (Burns)	2	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
D8	Social Work	NA	Open Plan Area	1	45.1	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
D9	Medical Day Care Unit - 5 Beds	NA	Reception: 2 staff	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office and Storage 2 staff	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	12.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Play Area	1	20.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi Bed Room: day care, 3 beds	1	40.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bedroom	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En Suite WC / WHB	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patient Treatment Lounge	1	32.4	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Consult/Examination	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Parking Bay: 1 patient trolley/whch	1	5.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview, Counselling & Quiet Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Staff Room	1	48.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		NA	Reception Desk/Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	15.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Single Bedroom	4	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	4	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Surgical Assessment Area (12 beds)	4 Bed Room	2	63.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
D10	Ambulatory Care Shared Support		Single Bedroom	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bath / WC / Washing	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Adolescent Assessment Area (2 beds)	Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Resus Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

E1 - Pod

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
E1	Pod	RHSC OPD Entrance	RHSC OPD Reception	1	10.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			RHSC OPD Main Waiting	1	15.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		RHSC Consulting Suite A	RHSC OPD Suite A Sub Waiting	1	54.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multi-Funtional Activity Zone	1	297.0	Patient Accommodation Day	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Support Facilities	WC Fully Accessible changing room	4	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wheelchair Accessible	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Ambulant	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
F1	CAMHS - 12 Beds	ENTRANCE	Reception	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	18.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		DAY PROGRAMME (Forteviot)	Group Room	1	24.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Control / Viewing	1	10.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Time Out Room	1	6.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Play Room	1	24.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multidisciplinary Office	1	28.7	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		DAY PROGRAMME (EPSS)	Sitting Room	1	15.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multidisciplinary Office	1	24.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		DAY PROGRAMME (Tipperlinn)	Group Room	1	24.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Sitting Room	1	15.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multidisciplinary Office	1	28.7	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		IN-PATIENTS	Single Bed Room	10	10.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bed Room (large)	2	11.5	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	12	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clinical Base - Open Plan Area	1	10.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			TV / Living Room - Open Plan Area	1	24.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Open Space	1	43.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Quiet Room	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Therapy Room	1	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Group Room	1	24.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Laundry Room	1	6.0	Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Drug Room	1	6.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Multidisciplinary Office - Inpatients	1	28.7	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multidisciplinary Office - ITS	1	24.6	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		SHARED FACILITIES	Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Consultant Psychiatrist / Psychologist Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Secretary/Filing Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Storage (testing)	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage / Photocopy	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Large Family Interview Room	1	14.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Family Interview Room	1	12.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	4	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shower / WC / WHB assisted	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dining Room (Inpatients & Day Prog)	1	62.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Therapeutic Kitchen	1	22.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Large Group Room	1	30.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Therapy / Play Therapy Room	1	15.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Art Room	1	24.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Recreation Room	1	45.0	Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward Manager's Office	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Quiet Zone	1	11.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	3	4.2	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

G1 - G2 Clinical Support

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
G2	Equipment Library	NA	Dirty Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Equipment	1	50.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
G3	On-Call Suite	NA	On-Call Bedroom	3	10.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Mini Kitchen	1	3.6	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			En-suite Shower / WC / WHB	3	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.

b) Mobile Equipment Bay Recess to be treated as part of room

c) Ressuc Trolley Area Recess to be treated as part of room

d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.

e) Reception & Waiting Combined

f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year

g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
H1	Child Life & Health	NA	Seminar / Tutorial Room	2	40.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Conference / Meeting Room	1	25.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Lockers	1	12.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Ambulant	4	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Area	1	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Admin Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Head of Department Office	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Laboratory / Finance Manager's Office	1	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Student Records Store	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Senior Academic Staff Office	6	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			16 Person Office	1	80.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	1	6.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Stationery / Photocopying	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Tissue Culture Room	1	9.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Freezer Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physiological Laboratory	1	45.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Molecular Biology Laboratory	1	45.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
H2	Clinical Research Facility	NA	Waiting Play Area	1	9.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Reception	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clinical Study Room	1	63.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			En Suite Shower / WC / WHB	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bed Room	2	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En Suite Shower / WC / WHB	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Accessible Patients	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	6.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consult/Examination	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult / Assessment	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			WC Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store - Equipment	1	24.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sample Processing	1	15.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Office - 4 person	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
H3	Clinical Education Suite	NA	Seminar Room	1	40.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room	1	25.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Scenario Room	1	20.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Control Room	1	8.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Workshop / Tutorial Room	3	20.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Practice Based Educators Office	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Management/Admin Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Manual Handling, Health & Safety	1	15.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Storage	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Ambulant	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC / WHB disabled	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Lockers	1	8.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Computer Carrels	6	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.

b) Mobile Equipment Bay Recess to be treated as part of room

c) Ressuc Trolley Area Recess to be treated as part of room

d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.

e) Reception & Waiting Combined

f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year

g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
I1	Main Entrance - Public Spaces	NA	Draught Lobby	1	15.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception / Information Desk	1	12.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Public Telephone Booth	1	2.0	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Fire Control Room	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Vending Machine	1	3.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Retail Shop	1	30.0	Retail	Subject to Fit -out						Central Supply and Extract	3	3	Balanced	G4	Subject to Fit -out										See Guidance Notes	Not Applicable
			Catering Shop	1	30.0	Retail	Subject to Fit -out						Central Supply and Extract	3	3	Balanced	G4	Subject to Fit -out										See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Assisted Change/Nappy Change	1	7.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Security Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Wheelchair Bay	1	6.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
I2	Bed & Toy Stores	NA	DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store - Beds	1	96.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Roadshow Equip Store	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Toys	1	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

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b) **Mobile Equipment Bay Recess to be treated as part of room**

c) **Ressuc Trolley Area Recess to be treated as part of room**

d) **Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.**

e) **Reception & Waiting Combined**

f) **Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year**

g) **Offices assumed to have openable windows without 100mm restrictors for natural ventilation .**

h) **Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.**

RHSC / DCN Environmental Matrix

J1 - J2 Patient / Family Support

Hulley Kirkwood

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
J1	Bereavement Suite	NA	Body Viewing Room	1	18.0	Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	Not Applicable	0	100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Lobby	1	3.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	ot Applicab	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sitting Room with Beverage Bay	1	20.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
J2	Spiritual & Pastoral Care	NA	Prayer / Meditation / Reflection Area	1	40.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC wheelchair accessible / Ritual Washing Area	1	6.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

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d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.

e) Reception & Waiting Combined

f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year

g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

RHSC / DCN Environmental Matrix

K1 - K2 Family Facilities

Hulley Kirkwood

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
K1	Family Support	NA	Waiting	1	8.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Meeting Rooms (family size)	2	15.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Drop-In Lounge / Beverage Bay	1	35.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Drop-In Multi-Purpose Room	1	39.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Complementary Therapy Room	1	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Interview Rooms	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Radio Lollipop Broadcasting Studio, Lobby	1	20.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 1	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 2	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 3	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 4	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 5	1	19.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 6	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Changing Room	1	4.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
K2	Family Hotel	NA	Reception/Waiting	1	6.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Office - 1 person	1	8.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Lounge - non residents	1	30.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Female	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Male	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Family Room accessible for 4 persons inc en-suite	2	48.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Family Room for 4 persons inc en-suite	24	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Kitchen / Dining Rooms	1	116.0	Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60	0	500	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Residents Day Room	1	18.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Residents Play Room	1	18.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Bathroom	1	8.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	2	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Laundry	2	15.0	Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Switch/Meter Cupboard	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite Shower / WC / WHB	26	6.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage - refuse	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) as Treatment Room.
e) Reception & Waiting Combined
f) per year
g) natural ventilation .
h) for natural ventilation and occupancy factor of 0.8.

RHSC / DCN Environmental Matrix

L1 - L2 DCN In Patient Pathway / Ward Care

Hulley Kirkwood

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation				Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
L1	DCN Acute Care - 24 Beds	Entrance & Reception	Waiting Area, relatives	1	30.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office / Reception	1	18.0	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Refreshment: Vending Machine	1	3.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Visitor toilets, baby changing	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC: Independent Wheelchair	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview/Relatives Quiet Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Assessment	Consulting/Examination Room	4	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Patient Waiting	1	20.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Receiving/Resuscitation area	1	30.0	Resusitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	2
			Relatives Overnight Stay Room	1	10.0	Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ensuite Accessible Shower/Wc/WHB	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Ward Areas	Single Bed Room	12	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Ensuite Shower/Wc/WHB	12	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bedroom (level 1)	12	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Shower Room:en-suite	12	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Touchdown Base	4	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Base	2	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Support Facilities	Linen Bay	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: Food Trolley	1	2.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Interview/Relatives Quiet Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Teaching Room	1	20.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Hoist Bay	2	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Utility Facilities	Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	2	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	2	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		Storage Facilities	Storage Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage Consumables	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage Stationery	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Ward - Staff Facilities	Staff Room	1	9.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			WC Staff	3	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
L2	DCN Inpatients - 43 Beds	Entrance & Reception	Reception	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC: Semi Ambulant	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC: Independent Wheelchair	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Bedroom & Sanitary Facilities	Single Bedroom	41	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom	2	19.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	2	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shower Room:en-suite	43	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Facilities	Treatment Room	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	2	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	2	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	12	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Teaching Room	1	20.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Sitting Room	2	12.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	2	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: Food Trolley	1	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Mobile X-Ray Bay	1	4.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Hoist Bay	5	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Storage Facilities	Store	2	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	2	1.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Utility Facilities	Clean Utility	2	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	3	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	2	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	2	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		Ward - Staff Facilities	Ward Kitchen	2	16.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			WC: Staff	4	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) **Linen Bay recess to be treated as part of room.**
b) **Mobile Equipment Bay Recess to be treated as part of room**
c) **Ressuc Trolley Area Recess to be treated as part of room**
d) **Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.**
e) **Reception & Waiting Combined**
f) **Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year**
g) **Offices assumed to have openable windows without 100mm restrictors for natural ventilation .**
h) **Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.**

RHSC / DCN Environmental Matrix

M1 - M4 DCN Out Patient Departments

Hulley Kirkwood

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting						Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
M1	DCN Outpatients	*Entrance Facilities*	Enquiry / Information Desk: 2 staff	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Records Store	1	8.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Main Waiting	1	59.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Public Telephone: Single Booth	1	1.5	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Public Telephone: Single Booth, Accessible	1	2.0	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Fully Accessible Changing Room	1	7.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Refreshment: Vending Machine	1	3.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Consulting Suite A	Nurse Base	1	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination	15.5	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Multi-Disciplinary	2	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room (with prep area)	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Phlebotomy Room	1	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store - Equipment / General	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Consulting Suite B (Pre Admission Clinic)	Sub Waiting Area	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Nurse Base	1	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination	4	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Pre Op Clinic Team Office	1	17.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility: urine test	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Staff Support Facilities	Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Outpatient Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room	1	12.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store: Clinical Supplies, Equipment & Stationery	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
M2	DCN Therapies	NA	Waiting	1	18.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff Lockers	1	4.5	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Occupational Therapy	ADL Kitchen	1	22.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			ADL Bathroom, Shower, WC with hoists	1	13.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Physiotherapy	Physio Treatment Room	1	15.0	Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
			Multi-Purpose Rehabilitation Room	1	80.0	Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
		Dietetics	Consult/Examination	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Speech & Language Therapy	Distraction Free Treatment Room	2	15.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store: General/Equipment	1	25.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store: General/Equipment	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store: General/Equipment	1	5.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Changing Cubicles	4	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Office	1	65.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Patient Toilet	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Toilet	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
M3	Programmed Investigations Unit	NA	Waiting area; 4 & 2 wheelchairs	1	17.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Area	1	45.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
M4	DCN Neurophysiology	NA	Waiting Area (DCN)	1	15.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - wheelchair accessible (DCN)	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			EEG Recording Room	3	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			EMG/Nerve Conduction Room	3	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			VTEM/Ambulatory Review Room	1	20.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Reporting Room	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			HOD Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clinical Physiologist Office	1	24.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Secretarial Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Quiet Room	1	10.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Store / Records	1	32.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) **Linen Bay recess to be treated as part of room.**
b) **Mobile Equipment Bay Recess to be treated as part of room**
c) **Ressuc Trolley Area Recess to be treated as part of room**
d) **Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.**
e) **Reception & Waiting Combined**
f) **Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year**
g) **Offices assumed to have openable windows without 100mm restrictors for natural ventilation .**
h) **Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.**

RHSC / DCN Environmental Matrix

N1 DCN Support Space

Hulley Kirkwood

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
N1	DCN Entrance	NA	Reception / Information Desk	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Draft Lobby	1	9.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	ot Applicab	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Area	1	8.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Vending Machine	1	3.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
N2	DCN Wards / Health Records Support - (N2)	NA	Staff Room	1	34.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Grab & Go	1	20.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold (small)	1	4.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.

b) Mobile Equipment Bay Recess to be treated as part of room

c) Ressuc Trolley Area Recess to be treated as part of room

d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.

e) Reception & Waiting Combined

f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year

g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
P1	Operating Theatres & RHSC Surgical Day Case Unit	RHSC Staff Entrance	Staff Reception / Office / Control Base	1	20.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		RHSC Day Case Entrance and Reception	Reception	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			General Office	1	14.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Main Waiting/Play Area	1	50.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Rooms ensuite	3	15.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En Suite WC / WHB	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Changing Cubicles	3	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Locker Bay	1	13.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview Rooms	2	12.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Consult/Examination	2	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Physical Measurement Bay	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		DCN Entrance, Reception & Waiting Facilities with Admissions Suite	Reception, administration office & communication base: 4 staff	1	24.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Duty room: 2 porters	1	5.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admissions Lounge	1	36.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Inpatient Holding Bays (Bed)	2	8.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Inpatient Holding Bays (Chair)	2	4.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consulting, examination & changing room	3	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Interview, counselling & quiet room: 5 persons	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Changing Cubicle	1	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		RHSC Pre Theatre Admissions Suite	Immediate Pre Theatre Wait	1	50.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Operating Theatre Suite	Anaesthetic Room	8	19.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Anaesthetic room: emergency operations	1	29.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Operating Theatre	9	55.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Minor Procedures Room	1	19.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Scrub-up (single)	9	11.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Preparation Room	9	12.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Utility Room	5	14.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Exit Bay	5	12.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Burns Bathroom	1	20.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
		Intra Operative MRI	MRI Room	1	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - MRI	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Equipment Room - MRI	1	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Bay	2	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sub-Wait Area	1	4.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC Accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Preparation Room	1	14.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
		Digital Angiography	Anaesthetic Room	1	19.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Angiography Procedures Room	1	55.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Angiography Procedures Control Room	1	16.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Angiography Procedures Machine Room	1	16.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Preparation Room	1	12.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Sterile Supplies Store	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
		Support Space	X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Image Intensifier Bay	3	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Satellite Pharmacy Store	1	6.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Sterile Supplies Store	1	94.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Clinical Equipment Store	1	60.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clinical Equipment Store	1	30.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Scopes Store	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Decontaminated Scopes Store	1	8.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Medical Gas Cylinder Store	1	4.0	Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	2	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	15.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store - Plaster	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Parking bay: fibre optic bronchoscope light source trolley DCN	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Holding Bay Clean	1	12.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	1.5	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	1.8	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Holding Bay Dirty	2	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Laser Printer/CR Room DCN	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		RHSC Patient Pre-Discharge Areas	Post Anaesthetic Recovery	1	145.8	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Recovery Staff Base	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Distressed Parents Lobby	1	2.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Recovery Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Recovery Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			SDCU Dispensary	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			SDCU Recovery	1	110.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			SDCU Discharge Lounge	1	40.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry (DCU)	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			SDCU Post Op Staff Base/Utility	1	10.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Wheelchair Parking Bay	1	1.5	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview Room - DCU	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Charge Nurse's Office (SDCU)	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Patients	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Recovery bay: post anaesthetic, 1 place	6	13.5	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1

P1 - Combined Theatres

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
		DCN Recovery Unit or Post Anaesthetic Care Unit (PACU) Facilities	Recovery room: post anaesthetic, 1 place	2	26.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Staff & communication base, enclosed: 3 staff	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility: bedpan disposal & urine test	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Room	1	60.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	4	4.2	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office - Senior Nurse Theatres	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office - Staff	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Charge Nurse Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Staff Facilities	WC-Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male Staff Changing and Lockers	1	60.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Female Staff Changing and Lockers	1	70.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Footwear Machine Washing Area	1	4.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature: Design Maximum deg C	Temperature: Design Minimum deg C	Heating: Type	Heating: Control	Cooling Present	Cooling Type	Ventilation: Type	Ventilation: Supply ac/hr	Ventilation: Extract ac/hr	Ventilation: Relative Pressure	Ventilation: Min Filtration	Safety temperatures: Surface deg C	Safety temperatures: Water deg C	Safety Notes	Lighting: Normal lux	Lighting: Night lux	Lighting: Local lux	Lighting: Standby Grade	Lighting: Colour Rendering	Lighting: Control	Lighting: Plane	Notes	Medical Location Group
Q1	Radiology	RHSC Main Department	General X-Ray Room	2	33.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Changing Cubicles	5	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Screening Room (fluoroscopy)	1	39.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Preparation Room	1	10.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Ultrasound Room	2	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Dental Room	1	20.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Main Reporting	1	25.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Acute Reporting	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			MRI Reporting	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Processing Area	1	30.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Gamma Camera	2	40.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Gamma Camera Control Area	1	17.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Radioactive Waste Store	1	2.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Ambulant (Hot)	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Injection Room	2	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Preparation Room	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Hot Waiting Area	2	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Cold Waiting Area	2	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Stress Room (myocardial work)	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Counting Laboratory	1	14.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Admin Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Ambulant (Cold)	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Recovery Area	1	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Gamma Camera Reporting	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Physics Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Emergency Shower	1	2.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception Area	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admin Office	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area - Main Dept	1	50.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	4.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change Room with handwash	1	4.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		DCN Main Department	Reception	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admin Office	1	28.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	35.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Patients	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Acute Reporting	1	25.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Quiet Reporting	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Teleradiology / Reporting	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Doppler Ultrasound	1	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Ultrasound Admin Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		RHSC/DCN Main Department Shared	Waiting Play Area	1	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dirty Utility	1	9.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store Room	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	2	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			IPS Room	1	1.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Photocopy Room	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		RHSC MRI/CT (1 MRI Scanner)	MRI Room	1	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - CT/MRI	1	24.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Room - MRI	1	16.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			CT Room	1	36.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	4.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Induction Area - 1 place	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Recovery Area - 1 place	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Waiting Area	1	12.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Bay	2	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Adult Waiting Area	1	8.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible & change	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Accessible Changing Cubicle	2	6.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		DCN CT	CT Room	1	36.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - CT	1	16.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Preparation Room	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Injection Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Inpatient Holding Bays	1	43.2	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Toilets	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disabled Toilet	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		DCN MRI (NHS 2 Scanners)	MRI Room	2	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - MRI	1	24.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Room	2	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Preparation Room	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Injection Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Sub Wait	1	6.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Changing Cubicles	6	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Recovery Bays	1	8.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Toilets	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disabled Toilet	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		DCN University Research Scanner	MRI Room	1	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - MRI	1	24.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Room	1	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Server Room	1	6.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Data Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			University Staff Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Controlled Area Shared Space	Store Room	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Utility	1	9.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	3.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	10.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Staff Accommodation	Male Staff Changing and Lockers	1	27.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Female Staff Changing and Lockers	1	65.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Q1 - Combined Radiology

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
		Staff Accommodation	Staff WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resource Room/Library	1	39.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Office Space	Consultant Office (5 person)	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Consultant Office (5 person)	2	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Registrars Office (5 desks)	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Superintendent/PACS Manager/Radiographers/Nursing Office	1	28.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	2	6.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

R1 - R2 Office / Admin Support Services

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
R1	Clinical / Management Suite	Second Floor Space	2nd Floor Desks	1	234	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	143.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	180.4	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	221.4	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	69.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	147.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	180.4	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	7	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	2	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	18	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair Accessible	2	4.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Male)	1	17.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Male)	1	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Female)	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Female)	1	21.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store (Clinical)	4	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	3	3.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Printer/Photocopier Room	4	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room (2nd floor)	1	24.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	2	7.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Disposal Hold (small)	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		4th Floor Space	4th Floor Desks	1	213	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	4	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Management/Conference Room	2	26.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair Accessible	1	4.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Male)	1	8.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Female)	1	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store(Management)	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store(Management)	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Printer/Photocopier Room	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room (4th floor)	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Disposal Hold (small)	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
R2	Health Records	NA	Receipt / Dispatch Counter	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Trolley Area	1	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			RHSC Office - 3 Person	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			RHSC & DCN Records Library (160,000 records)	1	368.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Assistant Health Records Manager / Supervisors	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			RHSC / DCN Office - 17 Person	1	69.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

S1 - S7 Combined Facilities / Infrastructure Support Services

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation				Safety temperatures		Safety Notes	Lighting						Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
S1	Kitchen	NA	Receipt Bay	1	3.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		General Storage	Dry Goods	1	9.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Kitchen Equipment	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Refuse	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposables / Detergent	1	6.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		Cold Stores	Veg Store	1	6.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Raw Meat	1	7.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Dairy Store	1	9.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Freezer	2	5.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
		Kitchen	Preparation/Cooking Area	1	110.0	Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60	0	500	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Diet Prep Area	1	12.0	Ward Kitchen	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Diet Store	1	5.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pan Wash	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Temperature Controlled Sandwich Prep	1	18.0	Ward Kitchen	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Weighing	1	7.0	Ward Kitchen	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Clean Trolleys Park	1	21.5	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bakery Preparation	1	13.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
		Return Area	Returned Trolleys	1	25.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Trolley Wash Area	1	6.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
		Offices	Office (5 person)	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Staff Accommodation	Female Staff Changing inc Shower	1	13.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Male Staff Changing inc Shower	1	10.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Room	1	8.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S2	e-Health Infrastructure	NA	Core Server Room	1	40.0	IT equipment (comms server)	Manufacturer Dependant	Manufacturer Dependant	None	None	Yes	Independent Full Duty Standby cooling with UPS back-up	Central General Extract	2	2	Balanced	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
S3	Domestic Services	NA	Domestic Services Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Sanitary Bins Store	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bulk Equipment Store	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Supplies Store	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Pool (Clean)	1	32.0	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Pool (Dirty)	1	32.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S4	Materials Management	NA	Storage/Holding Area	1	100.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Porters office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Mailroom	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
S5	Central Staff Changing	NA	Female Staff Changing , Shower, WC & Lockers	1	240.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male Staff Changing , Shower, WC & Lockers	1	100.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bay for Token Machine	1	5.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
S6	Estates	NA	Workshop (NPD)	1	45.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Workshop (NHSL)	1	30.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store	1	30.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			BMS Room	1	10.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff Change	1	15.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shower	2	2.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S7	Restaurant	NA	Restaurant	1	157.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Storage/Dishwashing	1	25.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Female WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S8	Sterile Support Store	NA	Trolley Holding Bay	1	23	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S9	Helipad Support	NA	RFFS Changing / Support	1	29	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bed Bay	1	3.4	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Ambulant	1	3	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			RFFS Medical Equipment Store	1	6	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

T1 Combined plant

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
T1	Plant	NA	IT Node Rooms	25	9.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

U1 Shelled Space

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
U1	Shelled Space	NA	Shelled Space	1	320.0	To Be Confirmed																							

RHSC and DCN (Preferred Bidder)
Little France
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MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
General Correspondence	MM-GC-000126	MM-GC-000126

Environmental Matrix - Excel Version

From	Maureen Brown - Mott MacDonald Ltd (Head Office UK)
To (4)	BMEdinburgh DocControl - Brookfield Multiplex Construction Europe
	Mr Ken Hall - Brookfield Multiplex Construction Europe
	Mr John Bushfield - Wallace Whittle
	Mr Stewart McKechnie - Wallace Whittle
Cc (7)	Graeme Greer - Mott MacDonald Ltd (Head Office UK)
	Mr Kamil Kolodziejczyk - Mott MacDonald Ltd (Head Office UK)
	Colin MacRae - Mott MacDonald Ltd (Head Office UK)
	Mr Simon Todd - Mott MacDonald Ltd (Head Office UK)
	Mr Phil Christie - NHS Lothian
	Mr Brian Currie - NHS Lothian
	NHSL RHSC + DCN - NHS Lothian
Sent	Friday, 11 July 2014

MESSAGE

Ken,

As per your recent request please find attached the Environmental Matrix in excel.

Kind regards,

Mo

RHSC and DCN (Preferred Bidder)
Little France
Edinburgh
Scotland United Kingdom

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
General Correspondence	BMCE-GC-001193	BMCE-GC-001193

RE: Environmental Matrix

From	BMEdinburgh DocControl - Brookfield Multiplex Construction Europe
To (5)	Maureen Brown - Mott MacDonald Ltd (Head Office UK)
	Graeme Greer - Mott MacDonald Ltd (Head Office UK)
	Colin MacRae - Mott MacDonald Ltd (Head Office UK)
	Mr Andrew Wholley - Mott MacDonald Ltd (Head Office UK)
	NHSL RHSC + DCN - NHS Lothian
Cc (7)	Ms Anne Alexander - Bouygues E&S FM
	Mr Didier Blanchet - Bouygues E&S FM
	Mr Matthieu Dannoot - Bouygues E&S FM
	Mr Panya Upama - Bouygues E&S FM
	Mr Graham Coupe - Brookfield Multiplex Construction Europe
	Mr Ken Hall - Brookfield Multiplex Construction Europe
	Mr George Miller - Brookfield Multiplex Construction Europe
Sent	Monday, 29 September 2014

MESSAGE

Maureen,

Please see attached RHSC DCN RDS Environmental Matrix in excel format as requested.

Best Regards

Anne

BM Edinburgh Document Control

RHSC and DCN
Little France
Edinburgh
Scotland

Royal Hospital for Sick Children and Department for Clinical Neurosciences - Edinburgh

RHSC / DCN RDS Environmental Matrix

Dept Code	Index
~	Cover
~	Guidance Notes
~	Room Function Reference Sheet
A1 - A4	Front Door - A&E / Assessment Ward
B1	Critical Care / HDU / Neonatal Surgery
C1- C5	RHSC In Patient Pathway / Ward Care
D1 - D10	RHSC Ambulatory Care
E1	Pod
F1	Child and Adolescent Mental Health
G2 - G3	Clinical Support
H1 - H3	Academic
I1 - I2	Facilities / Infrastructure Support Services
J1 - J2	Patient / Family Support
K1 - K2	Family Facilities
L1 - L2	DCN In Patient Pathway / Ward Care
M1- M4	DCN Support Space
N1	DCN Out Patient Departments
P1	Combined Theatres
Q1	Combined Radiology
R1 - R2	Office / Admin Support Services
S1 - S7	Combined Facilities / Infrastructure Support Services
T1	Plant
U1	Shelled Space

Rev	By	Description	Date

Environmental Matrix - Guidance Notes

1 This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets.

2 The services matrices are produced from the NHS Lothian Schedule of Accommodation Sheets Version 13 issued 19th September 2012.

3 The design of the HVAC systems to the theatres shall be in accordance with SHTM 03-01.

4 Where radiant panels are indicated in any room in these matrices, detailed design development may remove the need for these without detriment to environmental temperature. This design development is dependant on actual room layout - i.e. whether a room is located adjacent to an external wall, ground bearing floor, roof surface or is internal.

5 Ventilation air change rates and the use of natural ventilation in Patient Areas shall be reviewed throughout the detail design process to ensure a maximum internal temperature of 25°C (dry bulb) is not exceeded during normal occupancy. This criteria shall also apply to cellular and open plan office spaces.

6 Maximum internal temperatures listed relate to normal occupancy and Summer Design Conditions ; External Summer Conditions for Cooling Plant Selection as per SHTM2025,Enthalpy 54kJ/kgda.26degC db,19degC wb. External Winter Conditions as per CIBSE Guide A Table A 2.2 for locality = - 6C for Heat Losses, and as SHTM 2025 for locality = -10C for AHU Ventilation Plant design.

7 Examination lamp notes where listed are provisional. Detailed requirements (fixed, mobile, illumination) will be detailed on C sheets as agreed from signed off 1:50 RDS, which shall take precedence over this schedule.

8 All lighting levels are derived from CIBSE Lighting Guide LG2. Client briefing may take precedence over Environmental Matrix.

9 Colour rendering refers to CIBSE Lighting Design Guide and will be applied throughout

"80" : Normal
"90" - Enhanced to provide close as possible match to natural light for clinical purposes

10 Thermostatic Mixing Devices - SHTM 04-01 Guidance shall be employed for specific TRV Type versus listed Area/Activity.

11 Standby Lighting to be Grade A throughout .

12 The internal temperature in naturally or mechanically ventilated rooms shall not exceed the maximum temperature as listed on these Environmental Matrices provided external summer design criteria is not exceeded .

13 Local Radiant Panel TRV's shall be tamper proof head type with limiting/locking facility.

14 Local Control BMS Temperature Sensors for ducted reheat zones and chilled water cassettes for hotspots shall be provided with local range adjustment to +/- 2C of BMS Set Point. BMS set point shall be adjustable via operator/user dialogue through formal

15 **Typical bedroom** - Design Criteria - SHTM 03-01 Clause 2.11 - internal temperatures in patient areas should not exceed 28C db for more than 50 hrs per year. Appendix 1 SHTM 03-01 gives 18C to 28C float range. NHSL however require that the maximum internal design temperature is 25C

HDU bed areas - Design Criteria - HBN 57 gives specific guidance as well as SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply, 18C to 25C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions).

The department should be air conditioned and controlled on a zonal basis.

Central AHU plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Post theatre recovery areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 15ac/hr S&E , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions).

Central AHU plant requires humidification to achieve RH range during winter.

Critical Care areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions). NHSL may require specific rooms to have a control range up to 28C

Central Air Handling Plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Theatre areas - Design Criteria -SHTM 03-01 - esp Appendix 1 and 2 for air change rates Appendix 3 for design logic and pressure cascade criteria, 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions). SHTM 03-01 advises Humidification is no longer to be provided for theatres ventilation as a matter of course. Users to verify any specific requirements depending on clinical requirement. Space in plant rooms should be provided together with blank section within air handling units for future provision. NHSL may require specific rooms to have a control range up to 28C

16 **Corridor** ventilation may be either mechanical or where the opportunity exists natural. To be determined during detailed design with due regard to clinical functionality.

17 **Single Room WC** - SHTM 03-01 Appendix 1 suggests 3ac/hr extract air change rate only. HK have applied 10ac/hr extract rate to provide a more robust rate of extract.

18 **Diagnostic Rooms** - (X Ray, CT Scanner, MRI Scanners, Gamma Camera) - air change rates listed at 8ac/hr. Actual air change rate must be derived through room heat gain analysis and actual equipment guidance.

19 **Operating Theatre Laminar Flow/UCV Requirements -** Refer to Operational Policy Documents for specific theatres which require Laminar Flow/UCV canopy style ventilation solution. Note specific requirements for screenless canopies to avoid conflict with particular surgeon instruments/microscopes.

20 **Small workshop Areas -** Local Extract Ventilation (LEV) unit requirement to be determined from room equipment schedules

21 **Note that Isolation Suite ventilation solutions for this project shall follow HBN 4 Supplement 1 Section 4 Item 4.8 Guidance i.e.**
A common departmental AHU shall be employed to provide supply air ventilation (and shall therefore employ duty & standby motors)
Isolation Rooms En Suite Extracts shall be provided with an independent Isolation Room toilet extract ventilation system.
Isolation Rooms En Suite Extracts shall be provided with either externally located 3 mtr high discharge stack in a safe location or with extract filters (H14) within a safe change housing outside the building on the suction side of the fan.
Heating & Cooling Isolation Suites shall be provided via the ventilation system.

22 **Retail Provision -** Service provisions listed are Infrastructure only for future fit-out by retailer

23 **Comfort Cooled Fresh Air -** Where noted as such on the matrices, this means as provided via departmental air handling plant via chilled water cooling coils.

Room Function Reference Sheet.

The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

Room Function	Temperature		Heating		Cooling Present	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
	Design Max deg C	Design Min deg C	Type	Control		Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	5	300	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	1
Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes		G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41		300	n/a	1000	A	80	switch	General working plane 1m	See Guidance Notes	1
Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Patient Accommodation Day	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	5	300	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a

query

Room Function Reference Sheet.

The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant		F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Resusitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41		100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	n/a		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Open Plan Office	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Equipment Decontamination	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		500	n/a	1000	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	n/a		200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
					Bathroom		28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Bedroom		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
					Cellular / Ward Offices		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Changing Facilities		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Circulation Areas		28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	Central Supply and Extract or to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
					Circulation Areas - Entrance Lobby		28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Classroom		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Common room/staff room/lounge		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Consulting Room		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
					Clean Utility		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
					Dirty utility		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Diagnostic room		25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
					Eating/Drinking		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Ward Kitchen		28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
					Small Workshop		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					IT equipment (comms server)		25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Kitchen (Commercial)		28	16	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
					Laboratory		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Laundry		28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Meeting Room		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Patient Accommodation Day		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Multi-bed Wards		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Physiotherapy Studio		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
					Body View		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
					Reception		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Storage Area Med Gas		28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Storage Area Equipment		28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Tea Making		28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Toilet		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Waiting Room		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Treatment Room		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Isolation Lobby		25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Resusitation Bay		25	21	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Circulation Equipment Storage Bays		28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Isolation Bedroom		25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Positive	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
					Operating Theatre Suite		25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Disposal Hold		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					DSR		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Resus Trolley bay		28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Baby Feeding		25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Nappy Change		25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Relatives Overnight Stay		28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Pantry		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Linen Bay		28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Multi Disciplinary Work Areas		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Open Plan Office		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Equipment Decontamination		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	7	10	Negative	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
					Circulation Phone Booth		28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Recovery Bay / Recovery Room		28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Staff Base		28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
A1	Emergency Department	Main Entrance Draught Lobby	2	10.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parking Bay: 6 wheelchairs	1	4.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parking Bay: 3 accident trolleys & 3 wheelchairs	1	12.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception:2 staff	1	16.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area inc Play Area	1	63.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Triage Room	1	16.0	Consulting Room	X0242-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room: Dual Access (Mental Health)	10	16.0	Treatment Room	X0242-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room: Single Access	4	14.0	Treatment Room	X0242-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Plaster Suite (2 bays)	1	24.0	Consulting Room	X0206	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store - Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Quiet Room	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Supplies Base	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Washdown Room	1	16.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		General X-Ray Room	1	33.0	Diagnostic room	E0128	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Consultant Psychiatrist / Psychologist Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Changing Cubicle	1	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Room: 2 places	2	50.0	Resusitation Bay	X0242-06	25	21	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Sitting Room	1	16.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Body Viewing Room	1	10.0	Body View	S0027-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Laboratory - Near Patient Testing / Status	1	8.0	Laboratory	L1308	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry - Staff / Patient	1	5.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Shower: ambulant	2	2.5	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing Room and Lockers: 20 places	1	11.5	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers: 30 places	1	16.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Secretary/Filing Office	1	18.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Manager's Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview/Meeting Room: 6 persons	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store - Equipment & Supplies	1	18.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Stock & Sterile Supplies	1	18.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dispensing Drugs	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Major Incident / Ambulance Equipment	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Medical Gas Cylinders	1	3.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
A2	Paediatric Acute Receiving Unit 34 Beds	4 Bed Room	1	63.0	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	6	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	6	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception/Staff Base	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	4	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Isolation Bed Room	1	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	13	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	14	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dining / Play Room	1	37.0	Common room/staff room/lounge	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Head of Department Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laboratory / Finance Manager's Office	1	11.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Senior Academic Staff Office	6	11.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		16 Person Office	1	80.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	10.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	2	1.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
A3	PARU / Emergency / Radiology Shared Support	Meeting / Case Conference Room	1	32.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Seminar & Training Room	1	32.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	1	80.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Area (Visitors)	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
B1	PICU and HDU's - 24 Beds	WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	2.0	Circulation Phone Booth	G0710	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	7.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office - 4 person	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Base	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Isolation Cubicle	2	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	2	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Cubicle	2	26.0	Bedroom	B1401	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	B1609-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff Base	1	4.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Cubicle	1	26.0	Bedroom	B1401	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	1	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (4 beds)	1	80.0	Multi-bed Wards	B1609-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Base	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Cubicle	1	15.0	Bedroom	B1401	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (3 cots)	1	45.0	Multi-bed Wards	B1407-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff Base	1	4.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Cot Cubicle	1	26.0	Bedroom	B1421	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	1	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	B1609-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	18.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	19.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laboratory	1	10.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry / Milk Store	1	10.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	5.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Specialist Base & Store	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	3	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Relatives' Sitting Room	1	18.5	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Relatives	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Relative Overnight Stay Room	2	10.0	Relatives Overnight Stay	D1311	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Quiet / Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Family Interview Room	1	12.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Bulk Supplies Store	1	55.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	40.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bed/Patient Chair / Buggy Storage	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Retrieval Equipment Store	1	15.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Service Room	1	24.0	Small Workshop	L1804	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Gas Cylinder Store	2	2.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Cardiac Echo/ECG Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile X-Ray / Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		X-Ray Processing	1	8.0	Diagnostic room	L1804	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	4	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		On call consultant	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Retrieval Team	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Senior Nursing Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Work Area PICU	1	15.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Work Area HDU	1	15.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Seminar Room	1	37.5	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		IPS Room	1	2.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	3.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	32.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
C1.1	Medical Inpatients - 23 Beds	Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom	5	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom	3	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	3	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	8	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	19.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	1	19.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite trolley shower	4	8.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sitting Room / Lounge	1	16.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	2	10.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	20.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	3.0	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - back up clothing	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	18.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Mobile X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.8	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C1.2	Surgical Long Stay Inpatients 15 Beds	Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wetroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	5	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	5	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Discharge Lounge	1	20.0	Common room/staff room/lounge	D1135	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	1	3.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	13.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - back up clothing	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	1	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
C1.3	Neuroscience Inpatients - 12 Beds	Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Wetroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	2	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	2	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	16.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Snoezelen Room	1	12.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		WC Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Rehabilitation Room	1	30.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
C1.4	Haematology / Oncology Inpatients & Daycases - 17 Beds & 2 Chairs	Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	4	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	4	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	7	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Multi Bed Room: day care, 4 beds & 2 chairs	1	72.5	Multi-bed Wards	B0405-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	12.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	16.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Single Bedroom	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Kitchen/ Lounge/Social Space	1	25.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Study Room	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Treatment / Clean Utility	1	18.0	Treatment Room	X0105-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Complementary Therapy Room	1	10.0	Consulting Room	X0613	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Staff Office	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Nursing Staff Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Research Staff Office	1	19.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Room	1	25.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pharmacy Base	1	9.0	Consulting Room	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.5	Med / Surg / Neuro / Haemo Shared Support	Family Sitting Room	1	27.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Breast Pump Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC-Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C1.6	Adolescent Shared Accommodation	Dining / Recreation Room	1	26.0	Common room/staff room/lounge	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Room / Study	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.7	Paediatric Neurophysiology	EEG Recording Room	2	16.0	Diagnostic room	X0125	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Evoked Potential Recording Room	1	16.0	Diagnostic room	C0800	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		EEG Review Room	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.8	Surgical Short Stay Inpatients 14 Beds	Reception Desk/Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dining / Play Room	1	15.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	4	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite Shower / WC / WHB	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C2	Wards Support Areas	Staff Room	1	48.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Seminar Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C3	Special Feeds Unit	Food Prep Area	1	24.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Store - Feeds	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office Ante Room	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wash Room	1	5.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C4	Sleep Lab	Sleep Room	2	15.0	Bedroom	B0704	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parents Room	2	10.0	Bedroom	D1311	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Control Room	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C5	Classrooms	Primary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Upper Primary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secondary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resource Storage	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Administration Area	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Ambulant	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	3.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	10	15.5	Consulting Room	C0224-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Child Protection Room	1	24.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (Child Protection)	1	15.5	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	1	24.0	Consulting Room	C0217	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room (with prep area)	1	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Plaster Suite (3 bays)	1	40.0	Consulting Room	X0206	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store: Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Orthotics Workshop	1	16.0	Small Workshop	K0420	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment / General Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Room	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	2	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
D1	RHSC Main Outpatients Department	Specimen/ Disabled WC	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Fully accessible changing room	1	7.0	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area (incl supervised play) with Nurse Base	1	46	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area	1	3.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	4	15.5	Consulting Room	C0224-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (Ophthalmology)	1	15.5	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	1	24.0	Consulting Room	C0217	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Equipment / General Store	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Therapy (inc messy play) Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	2	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Shower Room	1	5.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination (Cleft)	2	18.0	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (ENT)	3	17.0	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store Room	1	1.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room (with prep area)	2	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Outpatients Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room	1	15.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D2	Cardiology & Respiratory	Waiting Area	1	9.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store/ Equipment	1	9.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Staff	1	4.5	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		ECG Procedure Room	1	12.0	Consulting Room	C0718-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Echocardiography Room	1	20.0	Diagnostic room	C0712	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Exercise Tolerance Test Room	1	20.0	Consulting Room	C0718-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Admin Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lung Function Laboratory	1	28.0	Treatment Room	C0718-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Exercise Room/Lung Function Laboratory	1	22.0	Treatment Room	C0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Admin Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Domiciliary Sleep Studies	1	12.0	Consulting Room	C0224-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
D3	Orthoptics	Staff Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Parking Bay: pushchairs	1	2.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC & handwash: specimen; wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Examination Room: Fields test	1	16.0	Consulting Room	C0143	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		C/E Orthoptic (6 metre room)	4	15.5	Consulting Room	C0230	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D4	Audiology	Waiting Area	1	13.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	3.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Testing/Clinic Rooms	2	21.0	Consulting Room	C0515	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Obs/Control	2	8.0	Diagnostic room	C0516	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		ABR Room	1	16.0	Treatment Room	C0517	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Test Room	1	16.0	Treatment Room	C0517-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Work Room	1	12.0	Small Workshop	L1804	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Mould Room	1	9.0	Small Workshop	L1804	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shared Staff Office	1	32.8	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D5	Paediatric Dentistry	Surgeries (standard)	3	18.0	Operating Theatre Suite	C0903	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Surgery (multi-disciplinary)	1	20.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery	1	10.0	Recovery Bay / Recovery Room	C0522-04	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Laboratory	1	10.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility / Dental Store	1	23.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile Inter-oral Storage	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D6	RHSC Therapies	Rehabilitation Room	4	30.0	Treatment Room	X0208-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Rehabilitation Room (inc CV equip)	1	39.0	Treatment Room	X0208-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Standard Treatment Room	3	15.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room (OT equip)	1	20.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Standard Distraction Free Treatment Room	2	15.0	Consulting Room	C0110-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Large Distraction Free Treatment Room	1	20.0	Consulting Room	C0110-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Dietetic Clinic Room	2	12.0	Diagnostic room	C0224-02	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Splinting / Casting Room	1	18.0	Consulting Room	X0206-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		management office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Office - All specialties (39 person)	1	159.0	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		A&C Staff Office/Appliance Officer	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Play Area	1	33.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - assisted (large+changing)	1	12.3	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	16.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	2.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - SALT	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	1.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	1.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	24.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	8.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	3.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	13.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - TIP	1	4.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Decontamination	1	10.0	Equipment Decontamination	Y0335	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	7	10	Negative	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D7	Plastics Dressings Clinic	Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dressings / DopplerStore	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sluice	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Telephone Booth	1	4.0	Circulation Areas	G0710	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Dressings Room (Burns)	2	16.0	Consulting Room	X0242	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D8	Social Work	Open Plan Area	1	45.1	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D9	Medical Day Care Unit - 5 Beds	Reception: 2 staff	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office and Storage 2 staff	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Play Area	1	20.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi Bed Room: day care, 3 beds	1	40.5	Multi-bed Wards	B0405-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En Suite WC / WHB	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Treatment Lounge	1	32.4	Treatment Room	X1504	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Parking Bay: 1 patient trolley/whch	1	5.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview, Counselling & Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
D10	Ambulatory Care Shared Support	Staff Room	1	48.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception Desk/Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dining / Play Room	1	15.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	4	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite Shower / WC / WHB	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	63.0	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bath / WC / Washing	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	1	9	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	2	2	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Resus Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
E1	Pod	RHSC OPD Reception	1	10.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		RHSC OPD Main Waiting	1	15.0	Waiting Room	J1255	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		RHSC OPD Suite A Sub Waiting	1	54.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Funtional Activity Zone	1	297.0	Patient Accommodation Day	J0232-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC Fully Accessible changing room	4	4.5	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Accessible	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Ambulant	1	7.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
F1	CAMHS - 12 Bed	Reception	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	18.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Group Room	1	24.0	Meeting Room	H1107	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Control / Viewing	1	10.0	Diagnostic room	E0604-06	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Time Out Room	1	6.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Play Room	1	24.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	1	15.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Group Room	1	24.0	Common room/staff room/lounge	H1107	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	1	15.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Room	10	10.0	Bedroom	B0510	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Room (large)	2	11.5	Bedroom	B0510	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	12	4.5	Bathroom	V1610	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Base - Open Plan Area	1	10.0	Reception	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		TV / Living Room - Open Plan Area	1	24.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Open Space	1	43.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Room	1	12	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Therapy Room	1	15.0	Consulting Room	X0613	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Group Room	1	24.0	Meeting Room	H1107	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laundry Room	1	6.0	Laundry	Y0521	28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Drug Room	1	6.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Multidisciplinary Office - Inpatients	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Office - ITS	1	24.6	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Consultant Psychiatrist / Psychologis	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secretary/Filing Office	1	18	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Storage (testing)	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage / Photocopy	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Large Family Interview Room	1	14.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Family Interview Room	1	12.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	4	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower / WC / WHB assisted	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining Room (Inpatients & Day Prog)	1	62.0	Eating/Drinking	D0608-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Therapeutic Kitchen	1	22.0	Ward Kitchen	Q0121	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Large Group Room	1	30.0	Meeting Room	H1107	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Therapy / Play Therapy Room	1	15.0	Common room/staff room/lounge	H0322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Art Room	1	24.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Recreation Room	1	45.0	Common room/staff room/lounge	H0322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Manager Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Quiet Zone	1	11.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
G2	Equipment Librar	Dirty Equipment	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Equipment	1	50.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
G3	On-Call Suite	On-Call Bedroom	3	10.0	Bedroom	D1311	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mini Kitchen	1	3.6	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
H1	Child Life & Health	Seminar / Tutorial Room	2	40.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Conference / Meeting Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lockers	1	12.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Ambulant	4	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Admin Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Head of Department	1	16	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laboratory / Finance Manager's Offic	1	11	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Student Records Store	1	12.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Senior Academic Staff	6	11	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		16 Person Office	1	80	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Stationery / Photocopying	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Tissue Culture Room	1	9.0	Laboratory	L0102-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Freezer Store	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physiological Laboratory	1	45.0	Laboratory	L0102-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Molecular Biology Laboratory	1	45.0	Laboratory	L0102-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
H2	Clinical Research Facility	Waiting Play Area	1	9.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Study Room	1	63.0	Consulting Room	B0405-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		En Suite Shower / WC / WHB	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Room	2	15.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En Suite Shower / WC / WHB	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Accessible Patients	1	3.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	6.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult / Assessment	1	12.0	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		WC Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	24.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sample Processing	1	15.0	Diagnostic room	L1804	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Office - 4 person	1	20	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
H3	Clinical Education Suite	Seminar Room	1	40.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Scenario Room	1	20.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Control Room	1	8.0	Diagnostic room	C0516	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Workshop / Tutorial Room	3	20.0	Classroom	H0202-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	m/a
		Practice Based Educators Office	1	20	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Management/ Admin Office	1	15	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Manual Handling, Health & Safety	1	15.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Storage	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC / WHB disabled	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Lockers	1	8.0	Circulation Equipment Storage Bays	V0653	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Computer Carrels	6	2.0	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
I1	Main Entrance - Public Spaces	Draught Lobby	1	15.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception / Information Desk	1	12.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	16.5	Waiting Room	J1155	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	2.0	Circulation Phone Booth	G0710	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Fire Control room	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assisted Change/Nappy Change	1	7.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Security Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Areas	G0180-02	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
I2	Bed & Toy Stores	DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Beds	1	96.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Toys	1	12.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
J1	ereavement Suit	Body Viewing Room	1	18.0	Body View	S0027-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Lobby	1	3.0	Circulation Areas - Entrance Lobby	G0800	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sitting Room with Beverage Bay	1	20.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
J2	itual & Pastoral C	Prayer / Meditation / Reflection Area	1	40.0	Common room/staff room/lounge	D0434-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC wheelchair accessible / Ritual Washing Area	1	6.0	Toilet	V0922-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
K1	Family Support	Waiting	1	8.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Meeting Rooms (family size)	2	15.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Drop-In Lounge / Beverage Bay	1	35.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Drop-In Multi-Purpose Room	1	39.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Complementary Therapy Room	1	15.0	Consulting Room	X0613	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Interview Rooms	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Radio Lollipop Broadcasting Studio, Lobby	1	20.0	Circulation Areas	C0516-01	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Office 1	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 2	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 3	1	10	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 4	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 5	1	19.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 6	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	20.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Changing Room	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
K2	Family Hotel	Reception/Waiting	1	6.0	Waiting Room	J0232-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Office - 1 person	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lounge - non residents	1	30.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Female	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Male	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Family Room accessible for 4 persons inc en-suite	2	48.0	Bedroom	D1311-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Family Room for 4 persons inc en-suite	24	19.0	Bedroom	D1311-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Kitchen / Dining Rooms	1	116.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Residents Day Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Residents Play Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Bathroom	1	8.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	2	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laundry	2	15.0	Laundry	Y0521	28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	26	6.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage - refuse	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
L1	DCN Acute Care - 24 Beds	Waiting Area, relatives	1	30.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office / Reception	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Refreshment: Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Visitor toilets, baby changing	2	4.5	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC: Independent Wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview/Relatives Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consulting/Examination Room	4	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Patient Waiting	1	20.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Receiving/Resuscitation area	1	30.0	Resusitation Bay	B1411	25	21	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Relatives Overnight Stay Room	1	10.0	Relatives Overnight Stay	D1311	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ensuite Accessible Shower/Wc/WHB	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Room	12	19.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Ensuite Shower/Wc/WHB	12	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (level 1)	12	19.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Shower Room:en-suite	12	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	4	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Base	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Interview/Relatives Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teaching Room	1	20.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Hoist Bay	2	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	2	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Consumables	1	18.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Stationery	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	9.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		WC Staff	3	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
L2	DCN Inpatients - 43 Beds	Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC: Semi Ambulant	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC: Independent Wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	41	19.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom	2	19.0	Isolation Bedroom	B0308-??	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	2	4.0	Isolation Lobby	G0510-02	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower Room:en-suite	43	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	2	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	12	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teaching Room	1	20.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	2	12.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	2	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Hoist Bay	5	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	2	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	2	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	3	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	2	16.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		WC: Staff	4	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Enquiry / Information Desk: 2 staff	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Records Store	1	8.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Main Waiting	1	59.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	1.5	Circulation Phone Booth	G0710	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Public Telephone: Single Booth, Accessible	1	2.0	Circulation Phone Booth	G0712	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Fully Accessible Changing Room	1	7.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Refreshment: Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Nurse Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination	15.5	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	2	24.0	Consulting Room	C0207-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room (with prep area)	1	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
M1	DCN Outpatients	Store - Equipment / General	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Nurse Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Consulting Room	V0922	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination	4	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Multi-Disciplinary Office	1	26.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility: urine test	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Outpatients Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: Clinical Supplies, Equipment & Stationery	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting	1	18.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff Lockers	1	4.5	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		ADL Kitchen	1	22.0	Pantry	Q0120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		ADL Bathroom, Shower, WC with hoists	1	13.0	Toilet	V1736-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physio Treatment Room	1	15.0	Physiotherapy Studio	X0105-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Multi-Purpose Rehabilitation Room	1	80.0	Physiotherapy Studio	X0318	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
M2	DCN Therapies	Distraction Free Treatment Room	2	15.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Store: General/Equipment	1	25.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: General/Equipment	1	20.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: General/Equipment	1	5.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	4	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Office	1	65.6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Toilet	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Toilet	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting area; 4 & 2 wheelchairs	1	17.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
M3	Programmed Investigations Unit	Treatment Area	1	45.0	Treatment Room	X0111	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Waiting Area (DCN)	1	15.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - wheelchair accessible (DCN)	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		EEG Recording Room	3	16.0	Diagnostic room	X0125	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		EMG/Nerve Conduction Room	3	16.0	Diagnostic room	X0136	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		VTEM/Ambulatory Review Room	1	20.0	Diagnostic room	M0251	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Reporting Room	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
M4	DCN Neurophysiology	HOD Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clinical Physiologist Room	1	24.6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secretarial Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Quiet Room	1	10.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store / Records	1	32.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception / Information Desk	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Draught Lobby	1	9.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	8.0	Waiting Room	J1155	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
N1	DCN Entrance	Vending Machine	1	3.0	Circulation Areas	P0808	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
N2	DCN Wards / Health Records Support - (N2)	Staff Room	1	34.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Reception / Office / Control Base	1	20.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Main Waiting/Play Area	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Rooms ensuite	3	15.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En Suite WC / WHB	3	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	3	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Locker Bay	1	13.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview Rooms	2	12.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consult/Examination	2	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Physical Measurement Bay	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Reception, administration office & communication base: 4 staff	1	24.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Duty Room: 2 porters	1	5.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admissions Lounge	1	36.0	Common room/staff room/lounge	D2155	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consulting, examination & changing room	3	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Interview, counselling & quiet room: 5 persons	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Changing Cubicle	1	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Immediate Pre Theatre Wait	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Anaesthetic Room	8	19.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Anaesthetic room: emergency operations	1	29.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Operating Theatre	9	55.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Minor Procedures Room	1	19.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Scrub-up (single)	9	11.0	Operating Theatre Suite	N0224	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Preparation Room	10	12.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Utility Room	5	14.0	Operating Theatre Suite	Y0431-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Exit Bay	5	12.0	Operating Theatre Suite	G0407	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801-02	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	16.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room - MRI	1	16.0	Storage Area Equipment	E0311	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Bay	2	4.0	Circulation Equipment Storage Bays	J1264	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub-Wait Area	1	4.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC Accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Anaesthetic Room	1	19.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Room	1	55.0	Operating Theatre Suite	E0311	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Control Room	1	16.0	Operating Theatre Suite	X0216	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Machine Room	1	16.0	Operating Theatre Suite	E0311	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Preparation Room	1	12.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Sterile Supplies Store	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
P1	Operating Theatres & RHSC Surgical Day Case Unit	X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Image Intensifier Bay	3	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Satellite Pharmacy Store	1	6.0	Clean Utility	T0526-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Sterile Supplies Store	1	94.0	Clean Utility	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clinical Equipment Store	1	60.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Equipment Store	1	30.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Dirty Scopes Store	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Decontaminated Scopes Store	1	8.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Medical Gas Cylinder Store	1	4.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	15.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Parking bay: fibre optic bronchoscope light source trolley DCN	1	1.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Holding Bay Clean	1	12.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.5	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.8	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central Supply and Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Holding Bay Dirty	2	6.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laser Printer / CR Room DCN	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Post Anaesthetic Recovery	1	145.8	Recovery Bay / Recovery Room	B2417	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery Staff Base	1	12.0	Cellular / Ward Offices	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Recovery Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Recovery Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		SDCU Dispensary	1	8.0	Clean Utility	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		SDCU Recovery	1	110.0	Recovery Bay / Recovery Room	B2517	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		SDCU Discharge Lounge	1	40.0	Common room/staff room/lounge	D1135	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry (DCU)	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		SDCU Post Op Staff Base/Utility	1	10.0	staff base	T0151-??	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wheelchair Parking Bay	1	1.5	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview Room - DCU	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Charge Nurse Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Patients	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery bay: post anaesthetic, 1 place	6	13.5	Recovery Bay / Recovery Room	B2417-01	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery room: post anaesthetic, 1 place	2	26.0	Recovery Bay / Recovery Room	B2417-01	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff and communication base, enclosed 3 staff	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility: bedpan disposal & urine test	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	60.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	4	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office Senior Nurse Theatres	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office Staff	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Charge Nurse Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC-Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing and Lockers	1	60.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers	1	70.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Footwear Machine Washing Area	1	4.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		General X-Ray Room	2	33.0	Diagnostic room	E0128	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Changing Cubicles	5	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Screening Room (fluoroscopy)	1	39.0	Diagnostic room	E0218-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Preparation Room	1	10.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Ultrasound Room	2	16.0	Diagnostic room	E0115	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Dental Room	1	20.0	Consulting Room	E0135	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Main Reporting	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Acute Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		MRI Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Processing Area	1	30.0	Diagnostic room	M0251	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Gamma Camera	2	40.0	Diagnostic room	E0176	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Gamma Camera Control Area	1	17.0	Consulting Room	E0604-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Radioactive Waste Store	1	2.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant (Hot)	2	4.5	Toilet	V0922-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Injection Room	2	8.0	Consulting Room	E0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Hot Waiting Area	2	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Cold Waiting Area	2	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Stress Room (myocardial work)	1	14.0	Consulting Room	C0224-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Counting Laboratory	1	14.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Admin Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Ambulant (Cold)	1	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery Area	1	15.0	Recovery Bay / Recovery Room	C0522-04	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Gamma Camera Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Physics Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Emergency Shower	1	2.5	Bathroom	V1643-01	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception Area	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	10	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area - Main Dept	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change Room with handwash	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	28.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	35.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Patients	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Acute Reporting	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Quiet Reporting	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teleradiology Reporting	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Doppler Ultrasound	1	16.0	Diagnostic room	E0113	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Ultrasound Admin Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Play Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Utility	1	9.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Room	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Q1	Radiology	Photocopy Room	1	6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - CT/MRI	1	24.0	Cellular / Ward Offices	E0604-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room - MRI	1	16.0	IT equipment (comms server)	E0311	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		CT Room	1	36.0	Diagnostic room	E0601-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Induction Area - 1 place	1	16.0	Treatment Room	X0145-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery Area - 1 place	1	16.0	Treatment Room	B2417-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Trolley Bay	2	4.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Adult Waiting Area	1	8.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible & change	1	7.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		CT Room	1	36.0	Diagnostic room	E0601	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - CT	1	16.0	Cellular / Ward Offices	E0604-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Injection Room	1	12.0	Treatment Room	E0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Inpatient Holding Bays	1	43.2	Circulation Equipment Storage Bays	J0132-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Toilets	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disabled Toilet	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		MRI Room	2	45.0	Diagnostic room	E0801-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	24.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room	2	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Injection Room	1	12.0	Consulting Room	E0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Sub Wait	1	6.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	6	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery Bays	1	8.0	Circulation Equipment Storage Bays	B2417-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Toilets	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disabled Toilet	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	24.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room	1	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		University Staff Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store Room	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	9.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	3.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Clean Utility	1	10.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing and Lockers	1	27.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers	1	65.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resource Room / Library	1	39.0	Open Plan Office	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	2	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Registrars Office (5 desks)	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Superintendent/PACS Manager/Radiographers/Nursing Office	1	28.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	2	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	233.7	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	143.5	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	180.4	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	221.4	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	69.7	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	147.6	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	180.4	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	7	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	18	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	17.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	11.0	toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	18.0	toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	21.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Clinical	1	24.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
R1	cal Management	Printer/Photocopier Room	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4th Floor Desks	1	213.0	Open Plan Office	M0132-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	4.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	2	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Management Conference Room	2	26.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair Accessible	1	4.5	toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	8.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	11.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Management	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store Management	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Printer/Photocopier Room	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	2	6.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Receipt / Dispatch Counter	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Trolley Area	1	6.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RHSC Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
R2	Health Records	RHSC & DCN Records Library (160,000 records)	1	368.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assistant Health Records Manager / Supervisors	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RHSC / DCN Office 17 Person	3	3.0	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Receipt Bay	1	3.0	Circulation Areas	cds	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Dry Goods	1	9.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Kitchen Equipment	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Refuse	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposables / Detergent	1	6.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Veg Store	1	6.0	CDS	cds	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Raw Meat	1	7.0	CDS	cds	8	5	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Dairy Store	1	9.0	CDS	cds	5	2	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Freezer	2	5.0	CDS	cds	-18	-20	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Preparation/Cooking Area	1	110.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Diet Prep Area	1	12.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
S1	Kitchen	Diet Store	1	5.0	CDS	W1585-??	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pan Wash	1	12.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Temperature Controlled Sandwich Prep	1	18.0	CDS	cds	12	10	None	None	Yes	Ceiling Cassette - Chilled Water	General Supply and Extract	4	4	Balanced	G4	43	41		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Weighing	1	7.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Clean Trolleys Park	1	21.5	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	1	2	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bakery Preparation	1	13.0	CDS	cds	12	10	None	None	Yes	Ceiling Cassette - Chilled Water	General Supply and Extract	4	4	Balanced	G4	43	41		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Returned Trolleys	1	25.0	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	1	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Wash Area	1	6.0	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	2	3	Negative	None	43	41		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Office 5 person	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Female Staff Changing inc Shower	1	13.0	Changing Facilities	V0554	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing inc Shower	1	10.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
S2	e-Health Infrastructure	Core Server Room	1	40.0	IT equipment (comms server)	Engineering	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Domestic Service Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sanitary Bins Store	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S3	Domestic Services	Bulk Equipment Store	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Supplies Store	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Pool (Clean)	1	32.0	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Pool (Dirty)	1	32.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage/Holding Area	1	100.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S4	Materials Management	Porters Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Mailroom	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Female Staff Changing , Shower, WC & Lockers	1	240.0	Changing Facilities	V0554	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S5	Central Staff Changing	Male Staff Changing , Shower, WC & Lockers	1	100.0	Changing Facilities	V0554-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bay for Token Machine	1	5.0	Circulation Equipment Storage Bays	P0808	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Workshop (NPD)	1	45.0	Small Workshop	K0421	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Workshop (NHSL)	1	30.0	Small Workshop	K0421	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	30.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S6	Estates	Staff Room (4th floor)	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		BMS Room	1	10.0	IT equipment (comms server)	query	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff Change	1	15.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower	2	2.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Restaurant	1	157.0	Eating/Drinking	D0608-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Storage/Dishwashing	1	25.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S7	Restaurant	Male WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S8	Sterile Support Store	Trolley Holding Bay	1	23	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RFFS Changing / Support	1	29	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bed Bay	1	3.4	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant	1	3	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S9	Helipad Support	RFFS Medical Equipment Store	1	6	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
T1	Plant	IT Node Rooms	25	9.0	IT equipment (comms server)	query	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Main Lab	1	120.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Utility Area Wash Up	1	12.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Temp Controlled Store	1	15.2	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	8.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Record Store	1	15.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
U1	Labs	Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Meeting/Staff	1	16.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Male Change	2	6.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office	1	29.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

Royal Hospital for Sick Children and Department for Clinical Neurosciences - Edinburgh

Reference Design Envisaged Solution - RHSC / DCN RDS Environmental Matrix

hulley & kirkwood consulting engineers

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Rev	By	Description	Date
First Issue	JMcM	First Issue Based on Schedule of Area V8	03.02.12
Second Issue	JMcM	Second Issue Based on Schedule of Area V10 Ward Room T Max Reduced from 28 to 25 Degrees Celsius Revised to suit NHSL Comments	13.03.12
Third Issue	JMcM	Third Issue Based on Schedule of Area V13	19.09.12

Environmental Matrix - Guidance Notes

1 This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets.

2 The services matrices are produced from the NHS Lothian Schedule of Accommodation Sheets Version 13 issued 19th September 2012.

3 The design of the HVAC systems to the theatres shall be in accordance with SHTM 03-01.

4 Where radiant panels are indicated in any room in these matrices, detailed design development may remove the need for these without detriment to environmental temperature. This design development is dependant on actual room layout - i.e. whether a room is located adjacent to an external wall, ground bearing floor, roof surface or is internal.

5 Ventilation air change rates and the use of natural ventilation in Patient Areas shall be reviewed throughout the detail design process to ensure a maximum internal temperature of 25°C (dry bulb) is not exceeded during normal occupancy. This criteria shall also apply to cellular and open plan office spaces.

6 Maximum internal temperatures listed relate to normal occupancy and Summer Design Conditions ; External Summer Conditions for Cooling Plant Selection as per SHTM2025,Enthalpy 54kJ/kgda.26degC db,19degC wb. External Winter Conditions as per CIBSE Guide A Table A 2.2 for locality = - 6C for Heat Losses, and as SHTM 2025 for locality = -10C for AHU Ventilation Plant design.

7 Examination lamp notes where listed are provisional. Detailed requirements (fixed, mobile, illumination) will be detailed on C sheets as agreed from signed off 1:50 RDS, which shall take precedence over this schedule.

8 All lighting levels are derived from CIBSE Lighting Guide LG2. Client briefing may take precedence over Environmental Matrix.

9 Colour rendering refers to CIBSE Lighting Design Guide and will be applied throughout

"80" : Normal
"90" - Enhanced to provide close as possible match to natural light for clinical purposes

10 Thermostatic Mixing Devices - SHTM 04-01 Guidance shall be employed for specific TRV Type versus listed Area/Activity.

11 Standby Lighting to be Grade A throughout .

12 The internal temperature in naturally or mechanically ventilated rooms shall not exceed the maximum temperature as listed on these Environmental Matrices provided external summer design criteria is not exceeded .

13 Local Radiant Panel TRV's shall be tamper proof head type with limiting/locking facility.

14 Local Control BMS Temperature Sensors for ducted reheat zones and chilled water cassettes for hotspots shall be provided with local range adjustment to +/- 2C of BMS Set Point. BMS set point shall be adjustable via operator/user dialogue through formal FM channels.

15 **Typical bedroom** - Design Criteria - SHTM 03-01 Clause 2.11 - internal temperatures in patient areas should not exceed 28C db for more than 50 hrs per year. Appendix 1 SHTM 03-01 gives 18C to 28C float range. NHSL however require that the maximum internal design temperature is 25C

HDU bed areas - Design Criteria - HBN 57 gives specific guidance as well as SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply, 18C to 25C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions).

The department should be air conditioned and controlled on a zonal basis.

Central AHU plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Post theatre recovery areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 15ac/hr S&E , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions).

Central AHU plant requires humidification to achieve RH range during winter.

Critical Care areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions). NHSL may require specific rooms to have a control range up to 28C

Central Air Handling Plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Theatre areas - Design Criteria -SHTM 03-01 - esp Appendix 1 and 2 for air change rates Appendix 3 for design logic and pressure cascade criteria, 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions). SHTM 03-01 advises Humidification is no longer to be provided for theatres ventilation as a matter of course. Users to verify any specific requirements depending on clinical requirement. Space in plant rooms should be provided together with blank section within air handling units for future provision. NHSL may require specific rooms to have a control range up to 28C

16 **Corridor** ventilation may be either mechanical or where the opportunity exists natural. To be determined during detailed design with due regard to clinical functionality.

17 **Single Room WC** - SHTM 03-01 Appendix 1 suggests 3ac/hr extract air change rate only. HK have applied 10ac/hr extract rate to provide a more robust rate of extract.

18 **Diagnostic Rooms** - (X Ray, CT Scanner, MRI Scanners, Gamma Camera) - air change rates listed at 8ac/hr. Actual air change rate must be derived through room heat gain analysis and actual equipment guidance.

19 **Operating Theatre Laminar Flow/UCV Requirements -** Refer to Operational Policy Documents for specific theatres which require Laminar Flow/UCV canopy style ventilation solution. Note specific requirements for screenless canopies to avoid conflict with particular surgeon instruments/microscopes.

20 **Small workshop Areas -** Local Extract Ventilation (LEV) unit requirement to be determined from room equipment schedules

21 **Note that Isolation Suite ventilation solutions for this project shall follow HBN 4 Supplement 1 Section 4 Item 4.8 Guidance i.e.**
A common departmental AHU shall be employed to provide supply air ventilation (and shall therefore employ duty & standby motors)
Isolation Rooms En Suite Extracts shall be provided with an independent Isolation Room toilet extract ventilation system.
Isolation Rooms En Suite Extracts shall be provided with either externally located 3 mtr high discharge stack in a safe location or with extract filters (H14) within a safe change housing outside the building on the suction side of the fan.
Heating & Cooling Isolation Suites shall be provided via the ventilation system.

22 **Retail Provision -** Service provisions listed are Infrastructure only for future fit-out by retailer

23 **Comfort Cooled Fresh Air -** Where noted as such on the matrices, this means as provided via departmental air handling plant via chilled water cooling coils.

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Room Function Reference Sheet.
The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	17	18	19	20	21	22	23	24
	Temperature		Heating		Cooling Present	Cooling	Ventilation					Safety temperatures		Lighting								Medical Location
Room Function	Design Maximum deg C	Design Minimum deg C	Type	Control		Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C	Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane	Notes	Group
Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes		G4	43	41	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	Not Applicable	Not Applicable	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
HDU	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	400	10 to 20	1000	A	90	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	2
IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60	500	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Patient Accommodation Day	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41	300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	Not Applicable	100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant		F7	43	Not Applicable	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Resuscitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41	500	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	2
Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	Not Applicable	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
Operating Theatre DCU	28	18	Adjacent Space Transfer Air	None	No	None	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	Balanced	None	43	41	100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	2
Operating Theatre Recovery	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	Balanced	F7	43	41	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	2
Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Open Plan Office	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Equipment Decontamination	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	200	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
Isolation Bedroom En-suite	25	18	Adjacent Space Transfer Air	None	No	None	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	None	43	41	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	1
IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
A1	Emergency Department	Entrance, Reception & Waiting	Main Entrance Draught Lobby	2	10.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: 6 wheelchairs	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: 3 accident trolleys & 3 wheelchairs	1	12.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception:2 staff	1	16.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area inc Play Area	1	63.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	4.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
		Treatment Facilities	Triage Room	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room: Dual Access (Mental Health)	10	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room: Single Access	4	14.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Plaster Suite (2 bays)	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store - Plaster	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff & Communication Base	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Supplies Base	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Washdown Room	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			General X-Ray Room	1	33.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Processing Room	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Changing Cubicle	1	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Patient Resuscitation Facilities	Resuscitation Room: 2 places	2	50.0	Resuscitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	2
		Distressed & Bereaved Persons Facilities	Sitting Room	1	16.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Body Viewing Room	1	10.0	Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	Not Applicable	0	100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Support Facilities: Clinical	Laboratory - Near Patient Testing / Status	1	8.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Staff Support Facilities	Pantry - Staff / Patient	1	5.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Staff Support Facilities: Sanitary & Changing	WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Shower: ambulant	2	2.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male Staff Changing Room and Lockers: 20 places	1	11.5	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Female Staff Changing and Lockers: 30 places	1	16.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consultants Office (6 Person)	1	24.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Staff / Audit / SECY Office	1	17.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview/Meeting Room: 6 persons	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Support Facilities: Holding & Storage	Store - Equipment & Supplies	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Stock & Sterile Supplies	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dispensing Drugs	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Major Incident / Ambulance Equipment	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Medical Gas Cylinders	1	3.0	Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Facilities: Miscellaneous	Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			IPS Room	1	1.1	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		4 Hour Observation Area (4 beds)	4 Bed Room	1	63.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Seasonal Additional Capacity (6 beds)	Single Bedroom	6	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	6	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Medical Assessment Area (22 beds)	Reception/Staff Base	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	4	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Isolation Bed Room	1	17.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Single Bedroom (RHSC)	13	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	14	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
A2	Paediatric Acute Receiving Unit - 34 Beds	Adolescent Assessment Area (2 beds)	Single Bedroom (RHSC)	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Shared Support	Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Dining / Play Room	1	37.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Patint Interview Room	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			On-Call Consultant Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	26.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clinical Coordinators Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	10.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	2	1.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
A3	PARU / Emergency / Radiology Shared Support	NA	Meeting / Case Conference Room	1	32.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Seminar & Training Room	1	32.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room	1	80.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control		Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
B1	PICU and HDU's - 24 Beds	NA	Waiting Area (Visitors)	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Public Telephone Booth	1	2.0	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Reception	1	7.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Data Manager & Secretarial Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		PICU - 8 Beds	Staff Base	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Bed Isolation Cubicle	2	26.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Gowning Lobby	2	6.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bed Cubicle	2	26.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Low Acuity - 6 Beds	Staff Base	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Bed Cubicle	1	26.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Gowning Lobby	1	6.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Open Plan Bay (4 beds)	1	80.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Neonatal HDU - 4 Cots	Staff Base	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Bed Cubicle	1	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Open Plan Bay (3 cots)	1	45.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		High Acuity - 6 Beds	Staff Base	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Single Cot Cubicle	1	26.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Gowning Lobby	1	6.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Shared Support	Clean Utility	1	18.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	19.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Laboratory	1	10.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Pantry / Milk Store	1	10.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	5.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Play Specialist Base & Store	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	3	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Relatives' Sitting Room	1	18.5	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Relatives	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Relative Overnight Stay Room	2	10.0	Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Quiet / Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Family Interview Room	1	12.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Bulk Supplies Store	1	55.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	40.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bed/Patient Chair / Buggy Storage	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Retrieval Equipment Store	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Service Room	1	24.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Gas Cylinder Store	2	2.0	Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Cardiac Echo/ECG Bay	1	4.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Mobile X-Ray / Ultrasound Bay	1	4.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			X-Ray Processing	1	8.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	4	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			On-Call Consultant Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Retrieval Team Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Senior Nursing Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multidisciplinary Work Area PICU	1	15.0	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multidisciplinary Work Area HDU	1	15.0	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Seminar Room	1	37.5	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			IPS Room	1	2.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	3.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff Room	1	32.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting								Medical Location
							Design Maximum	Design Minimum	Type	Control	Present	Type	Type	Supply	Extract	Relative	Min	Surface	Water		Normal	Night	Local	Standby	Colour	Control	Plane		Group
							deg C	deg C						ac/hr	ac/hr	Pressure	Filtration	deg C	deg C		lux	lux	lux	Grade	Rendering			Notes	
C1.1	Medical Inpatients - 23 Beds	NA	Reception / Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Medical (16 beds)	Single Bedroom	5	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom	3	17.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	3	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	8	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Transitional Care (4 beds)	Single Bedroom (RHSC)	3	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom (RHSC)	1	19.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite trolley shower	4	8.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sitting Room / Lounge	1	16.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent (3 beds)	Single Bedroom	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Touchdown Base	2	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	20.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	3.0	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - back up clothing	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Mobile X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	1.8	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
C1.2	Surgical Long Stay Inpatients -15 Beds	NA	Reception / Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Surgical (10 beds)	Single Bedroom	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wetroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent (5 beds)	Single Bedroom (RHSC)	5	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	5	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Discharge Lounge	1	20.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Touchdown Base	3	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	13.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - back up clothing	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Snoezelen Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			WC Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Rehabilitation Room	1	30.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
C1.3	Neuroscience Inpatients - 12 Beds	NA	Patient Interview Room	1	9.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	16.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Snoezelen Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			WC Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Rehabilitation Room	1	30.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1

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Dept	Dept						Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting								Medical Location
Code	Name	Department Sub Group	Room Name	Qty	Area	Room Function	Design Maximum	Design Minimum	Type	Control	Present	Type	Type	Supply	Extract	Relative	Min	Surface	Water		Normal	Night	Local	Standby	Colour	Control	Plane	Notes	Group
					(m2)		deg C	deg C						ac/hr	ac/hr	Pressure	Filtration	deg C	deg C		lux	lux	lux	Grade	Rendering				
C1.4	Haematology / Oncology Inpatients & Daycases - 17 Beds & 2 Chairs	NA	Waiting Area	1	12.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Reception / Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Paediatric Beds (7)	Single Bedroom (RHSC)	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom (RHSC)	4	17.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	4	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite wheelchair-accessible WC, Shower & wash	7	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patients' Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Day Facilities (7 beds & 2 chairs)	Multi Bed Room: day care, 4 beds & 2 chairs	1	72.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bedroom (RHSC)	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	12.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Clean Utility	1	16.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
		Adolescent Beds (3)	Single Bedroom	3	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Kitchen/ Lounge/Social Space	1	25.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Quiet Room / Study	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Ward Support Areas	Treatment / Clean Utility	1	18.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Complementary Therapy Room	1	10.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Consultant Office (5 Person Microscope)	1	25.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Staff Office	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Nursing Staff Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Research Staff Office	1	19.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Play Room	1	25.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pharmacy Base	1	9.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C1.5	Med / Surg / Neuro / Haemo Shared Support	NA	Family Sitting Room	1	27.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Breast Pump Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Baby Infant / Feeding Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			WC-Wheelchair Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
C1.6	Adolescent Shared Accommodation	NA	Dining / Recreation Room	1	26.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Quiet Room / Study	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C1.7	Paediatric Neurophysiology	NA																											
			EEG Recording Room	2	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Evoked Potential Recording Room	1	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			EEG Review Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C1.8	Surgical Short Stay Inpatients - 14 Beds	NA	Reception Desk/Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	15.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Surgical Assessment Area (12 beds)	Single Bedroom	4	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	4	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	58.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent Assessment Area (2 beds)	Single Bedroom (RHSC)	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patient Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			WC Wheelchair Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
C2	Wards Support Areas	NA	Staff Room	1	48.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Grab & Go	1	10.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Seminar Room	1	25.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
C3	Special Feeds Unit	NA	Food Prep Area	1	24.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Store - Feeds	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Office / Ante-Room	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Wash Room	1	5.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
C4	Sleep Lab	NA	Sleep Room	2	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parents Room	2	10.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Control Room	1	15.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
C5	Classrooms	NA	Primary Classroom	1	18.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Upper Primary Classroom	1	18.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Secondary Classroom	1	18.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resource Storage	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Administration Area	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Ambulant	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	3.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
D1	RHSC Main Outpatients Department		Consult/Examination	10	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Child Protection Room	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination (Child Protection)	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Multi-Disciplinary	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room (with prep area)	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Plaster Suite (3 bays)	1	40.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store: Plaster	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Orthotics Workshop	1	16.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Equipment / General Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store Room	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physical Measurement	2	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Infant Measuring Room	1	6.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Suite A	Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Phlebotomy Room	1	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Specimen/ Disabled WC	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Fully accessible changing room	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Baby Infant / Feeding Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
		Consulting Suite B	Sub Waiting Area (incl supervised play) with	1	46	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Nurse Base	1	3.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Sub Waiting Area	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Reception	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC wheelchair accessible	2	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination (Ophthalmology)	1	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Multi-Disciplinary	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Equipment / General Store	1	18.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Play Therapy (inc messy play) Room	2	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Physical Measurement	1	6.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Infant Measuring Room	1	5.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shower Room	1	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Mobile Hoist Bay	2	18.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination (Cleft)	3	17.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination (ENT)	1	1.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store Room	2	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room (with prep area)	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
		Support Suite B	Clean Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Utility	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Phlebotomy Room	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay (1 Trolley)	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff WC	1	4.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Baby Infant / Feeding Room	1	4.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Shared (All Suites)	Outpatients Management Office	1	15.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room	1	9.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
D2	Cardiology & Respiratory	**NA**	Waiting Area	1	9.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store/ Equipment	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Staff	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Physical Measurement	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Cardiology	ECG Procedure Room	1	20.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Echocardiography Room	1	20.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Exercise Tolerance Test Room	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admin Office	1	28.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Respiratory	Lung Function Laboratory	1	22.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Exercise Room/Lung Function Laboratory	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admin Office	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Domiciliary Sleep Studies	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
D3	Orthoptics	**NA**	Staff Office	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Parking bay:pushchairs/prams	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC & handwash: specimen; wheelchair	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Examination Room: Fields test	4	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			C/E Orthoptic (6 metre room)	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR																									

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature: Design Maximum deg C	Temperature: Design Minimum deg C	Heating: Type	Heating: Control	Cooling Present	Cooling Type	Ventilation: Type	Ventilation: Supply ac/hr	Ventilation: Extract ac/hr	Ventilation: Relative Pressure	Ventilation: Min Filtration	Safety temperatures: Surface deg C	Safety temperatures: Water deg C	Safety Notes	Lighting: Normal lux	Lighting: Night lux	Lighting: Local lux	Lighting: Standby Grade	Lighting: Colour Rendering	Lighting: Control	Lighting: Plane	Notes	Medical Location Group
D4	Audiology	NA	Waiting Area	1	13.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Area	1	3.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Testing/Clinic Rooms	2	21.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Obs/Control	2	8.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			ABR Room	1	16.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Test Room	1	16.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Work Room	1	12.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Mould Room	1	9.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shared Staff Office	1	32.8	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
D5	Paediatric Dentistry	NA	Surgeries (standard)	3	18.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Surgery (multi-disciplinary)	1	20.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Recovery	1	10.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Laboratory	1	10.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clean Utility / Dental Store	1	23.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Mobile Inter-oral Storage	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
D6	RHSC Therapies	Clinical Rooms	Rehabilitation Room	4	30.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Rehabilitation Room (inc CV equip)	1	39.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Standard Treatment Room	3	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room (OT equip)	1	20.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Infant Measuring Room	1	6.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Standard Distraction Free Treatment Room	2	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Large Distraction Free Treatment Room	1	20.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Dietetic Clinic Room	2	12.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Splinting / Casting Room	1	18.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Offices/Workstations	Management Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Office - All specialties (39 person)	1	159.9	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	1	6.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	4	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			A&C Staff Office/Appliance Officer	1	36.9	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Rooms	Reception	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Play Area	1	33.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - assisted (large+changing)	1	12.3	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - OT	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - OT	1	16.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - OT	1	2.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - SALT	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dietetic	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dietetic	1	1.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Dietetic	1	1.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	24.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	8.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	3.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Physio	1	13.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - TIP	1	4.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Decontamination	1	10.0	Equipment Decontamination	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	200	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
D7	Plastics Dressings Clinic	NA	Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Dressings / DopplerStore	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sluice	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Telephone Booth	1	4.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	o Guidance	o Guidance	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dressings Room (Burns)	2	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
D8	Social Work	NA	Open Plan Area	1	45.1	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
D9	Medical Day Care Unit - 5 Beds	NA	Reception: 2 staff	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office and Storage 2 staff	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	12.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Play Area	1	20.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi Bed Room: day care, 3 beds	1	40.5	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bedroom	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En Suite WC / WHB	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Patient Treatment Lounge	1	32.4	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Consult/Examination	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Parking Bay: 1 patient trolley/whch	1	5.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview, Counselling & Quiet Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
D10	Ambulatory Care Shared Support	NA	Staff Room	1	48.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Reception Desk/Staff Base	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dining / Play Room	1	15.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Surgical Assessment Area (12 beds)	Single Bedroom	4	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	4	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			4 Bed Room	2	63.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite Shower / WC / WHB	2	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Adolescent Assessment Area (2 beds)	Single Bedroom	2	17.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bath / WC / Washing	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	1	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Resus Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - General	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

E1 - Pod

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
E1	Pod	RHSC OPD Entrance	RHSC OPD Reception	1	10.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			RHSC OPD Main Waiting	1	15.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		RHSC Consulting Suite A	RHSC OPD Suite A Sub Waiting	1	54.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multi-Funtional Activity Zone	1	297.0	Patient Accommodation Day	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Support Facilities	WC Fully Accessible changing room	4	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wheelchair Accessible	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Ambulant	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
F1	CAMHS - 12 Beds	ENTRANCE	Reception	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	18.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		DAY PROGRAMME (Forteviot)	Group Room	1	24.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Control / Viewing	1	10.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Time Out Room	1	6.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Play Room	1	24.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multidisciplinary Office	1	28.7	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		DAY PROGRAMME (EPSS)	Sitting Room	1	15.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multidisciplinary Office	1	24.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		DAY PROGRAMME (Tipperlinn)	Group Room	1	24.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Sitting Room	1	15.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multidisciplinary Office	1	28.7	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		IN-PATIENTS	Single Bed Room	10	10.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Bed Room (large)	2	11.5	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			En-suite wheelchair-accessible WC, Shower & wash	12	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clinical Base - Open Plan Area	1	10.0	Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			TV / Living Room - Open Plan Area	1	24.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Open Space	1	43.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Quiet Room	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Therapy Room	1	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Group Room	1	24.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Laundry Room	1	6.0	Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Drug Room	1	6.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Multidisciplinary Office - Inpatients	1	28.7	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multidisciplinary Office - ITS	1	24.6	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		SHARED FACILITIES	Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Consultant Psychiatrist / Psychologist Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Secretary/Filing Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Storage (testing)	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage / Photocopy	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Large Family Interview Room	1	14.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Family Interview Room	1	12.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	4	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shower / WC / WHB assisted	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dining Room (Inpatients & Day Prog)	1	62.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Therapeutic Kitchen	1	22.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Large Group Room	1	30.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Therapy / Play Therapy Room	1	15.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Art Room	1	24.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Recreation Room	1	45.0	Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ward Manager's Office	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Quiet Zone	1	11.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	3	4.2	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
G2	Equipment Library	NA	Dirty Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Equipment	1	50.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
G3	On-Call Suite	NA	On-Call Bedroom	3	10.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Mini Kitchen	1	3.6	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			En-suite Shower / WC / WHB	3	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.

b) Mobile Equipment Bay Recess to be treated as part of room

c) Ressuc Trolley Area Recess to be treated as part of room

d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.

e) Reception & Waiting Combined

f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year

g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
H1	Child Life & Health	NA	Seminar / Tutorial Room	2	40.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Conference / Meeting Room	1	25.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Lockers	1	12.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Ambulant	4	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Area	1	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Admin Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Head of Department Office	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Laboratory / Finance Manager's Office	1	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Student Records Store	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Senior Academic Staff Office	6	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			16 Person Office	1	80.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	1	6.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Stationery / Photocopying	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Tissue Culture Room	1	9.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Freezer Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physiological Laboratory	1	45.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Molecular Biology Laboratory	1	45.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
H2	Clinical Research Facility	NA	Waiting Play Area	1	9.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Reception	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clinical Study Room	1	63.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			En Suite Shower / WC / WHB	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bed Room	2	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En Suite Shower / WC / WHB	2	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Accessible Patients	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	6.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consult/Examination	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult / Assessment	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			WC Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store - Equipment	1	24.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sample Processing	1	15.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Office - 4 person	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
H3	Clinical Education Suite	NA	Seminar Room	1	40.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room	1	25.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Scenario Room	1	20.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Control Room	1	8.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Workshop / Tutorial Room	3	20.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Practice Based Educators Office	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Management/Admin Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Manual Handling, Health & Safety	1	15.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Storage	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Ambulant	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC / WHB disabled	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Lockers	1	8.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Computer Carrels	6	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

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c) Ressuc Trolley Area Recess to be treated as part of room

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e) Reception & Waiting Combined

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A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
I1	Main Entrance - Public Spaces	NA	Draught Lobby	1	15.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception / Information Desk	1	12.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Public Telephone Booth	1	2.0	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Fire Control Room	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Vending Machine	1	3.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Retail Shop	1	30.0	Retail	Subject to Fit -out						Central Supply and Extract	3	3	Balanced	G4	Subject to Fit -out										See Guidance Notes	Not Applicable
			Catering Shop	1	30.0	Retail	Subject to Fit -out						Central Supply and Extract	3	3	Balanced	G4	Subject to Fit -out										See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Assisted Change/Nappy Change	1	7.0	Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Security Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Wheelchair Bay	1	6.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
I2	Bed & Toy Stores	NA	DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store - Beds	1	96.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Roadshow Equip Store	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store - Toys	1	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

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Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
J1	Bereavement Suite	NA	Body Viewing Room	1	18.0	Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	Not Applicable	0	100	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Lobby	1	3.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	ot Applicab	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sitting Room with Beverage Bay	1	20.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
J2	Spiritual & Pastoral Care	NA	Prayer / Meditation / Reflection Area	1	40.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC wheelchair accessible / Ritual Washing Area	1	6.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

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Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
K1	Family Support	NA	Waiting	1	8.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Meeting Rooms (family size)	2	15.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Drop-In Lounge / Beverage Bay	1	35.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Drop-In Multi-Purpose Room	1	39.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Complementary Therapy Room	1	15.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Interview Rooms	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Radio Lollipop Broadcasting Studio, Lobby	1	20.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 1	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 2	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 3	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 4	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 5	1	19.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office 6	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	8.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Changing Room	1	4.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
K2	Family Hotel	NA	Reception/Waiting	1	6.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Office - 1 person	1	8.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Lounge - non residents	1	30.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Female	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Male	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Family Room accessible for 4 persons inc en-suite	2	48.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Family Room for 4 persons inc en-suite	24	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Kitchen / Dining Rooms	1	116.0	Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60	0	500	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Residents Day Room	1	18.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Residents Play Room	1	18.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Bathroom	1	8.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	2	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Laundry	2	15.0	Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Switch/Meter Cupboard	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En-suite Shower / WC / WHB	26	6.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage - refuse	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) as Treatment Room.
e) Reception & Waiting Combined
f) per year
g) natural ventilation .
h) for natural ventilation and occupancy factor of 0.8.

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
L1	DCN Acute Care - 24 Beds	Entrance & Reception	Waiting Area, relatives	1	30.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office / Reception	1	18.0	Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	Not Applicable	0	300	Not Applicable	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Refreshment: Vending Machine	1	3.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Visitor toilets, baby changing	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC: Independent Wheelchair	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview/Relatives Quiet Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Assessment	Consulting/Examination Room	4	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Patient Waiting	1	20.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Receiving/Resuscitation area	1	30.0	Resusitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	2
			Relatives Overnight Stay Room	1	10.0	Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Ensuite Accessible Shower/Wc/WHB	1	6.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Ward Areas	Single Bed Room	12	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Ensuite Shower/Wc/WHB	12	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Bedroom (level 1)	12	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Shower Room:en-suite	12	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Touchdown Base	4	2.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Ward Management Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Base	2	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Support Facilities	Linen Bay	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: Food Trolley	1	2.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Interview/Relatives Quiet Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Teaching Room	1	20.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Hoist Bay	2	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Utility Facilities	Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	2	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	2	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		Storage Facilities	Storage Equipment	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage Consumables	1	18.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Storage Stationery	1	4.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Ward - Staff Facilities	Staff Room	1	9.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Ward Kitchen	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			WC Staff	3	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
L2	DCN Inpatients - 43 Beds	Entrance & Reception	Reception	1	3.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC: Semi Ambulant	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC: Independent Wheelchair	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Bedroom & Sanitary Facilities	Single Bedroom	41	19.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Single Isolation Bedroom	2	19.0	Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41	0	100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Isolation Bedroom Entrance Lobby	2	4.0	Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	0	F7	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shower Room:en-suite	43	4.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Assisted Bathroom	1	14.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Support Facilities	Treatment Room	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Ward Management Office	2	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Multi-Disciplinary Office	2	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Touchdown Base	12	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Teaching Room	1	20.0	Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Sitting Room	2	12.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry	2	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Parking Bay: Food Trolley	1	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Mobile X-Ray Bay	1	4.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Hoist Bay	5	3.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Storage Facilities	Store	2	12.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	2	1.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Utility Facilities	Clean Utility	2	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility	3	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	2	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	2	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		Ward - Staff Facilities	Ward Kitchen	2	16.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			WC: Staff	4	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation				Safety temperatures		Safety Notes	Lighting						Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
M1	DCN Outpatients	***Entrance Facilities***	Enquiry / Information Desk: 2 staff	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Records Store	1	8.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Main Waiting	1	59.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Public Telephone: Single Booth	1	1.5	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Public Telephone: Single Booth, Accessible	1	2.0	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Fully Accessible Changing Room	1	7.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Refreshment: Vending Machine	1	3.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		Consulting Suite A	Nurse Base	1	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination	15.5	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Multi-Disciplinary	2	24.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room (with prep area)	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Phlebotomy Room	1	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store - Equipment / General	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Consulting Suite B (Pre Admission Clinic)	Sub Waiting Area	1	16.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Nurse Base	1	2.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Physical Measurement	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Consult/Examination	4	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Pre Op Clinic Team Office	1	17.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clean Utility	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility: urine test	1	11.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Staff Support Facilities	Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Outpatient Management Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room	1	12.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store: Clinical Supplies, Equipment & Stationery	1	15.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
M2	DCN Therapies	**NA**	Waiting	1	18.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff Lockers	1	4.5	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Occupational Therapy	ADL Kitchen	1	22.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			ADL Bathroom, Shower, WC with hoists	1	13.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Physiotherapy	Physio Treatment Room	1	15.0	Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
			Multi-Purpose Rehabilitation Room	1	80.0	Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	1
		Dietetics	Consult/Examination	1	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Speech & Language Therapy	Distraction Free Treatment Room	2	15.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Store: General/Equipment	1	25.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store: General/Equipment	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Store: General/Equipment	1	5.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Changing Cubicles	4	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Office	1	65.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Interview Room	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Patient Toilet	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Toilet	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
M3	Programmed Investigations Unit	**NA**	Waiting area; 4 & 2 wheelchairs	1	17.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Treatment Area	1	45.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Treatment Room	1	16.0	Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41	0	500	Not Applicable	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
M4	DCN Neurophysiology	**NA**	Waiting Area (DCN)	1	15.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - wheelchair accessible (DCN)	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			EEG Recording Room	3	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			EMG/Nerve Conduction Room	3	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			VTEM/Ambulatory Review Room	1	20.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Reporting Room	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			HOD Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clinical Physiologist Office	1	24.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Secretarial Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Quiet Room	1	10.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Store / Records	1	32.5	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

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Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
							Design Maximum deg C	Design Minimum deg C	Type	Control	Present	Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
N1	DCN Entrance	NA	Reception / Information Desk	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Draft Lobby	1	9.0	Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	ot Applicab	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Waiting Area	1	8.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Vending Machine	1	3.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Visitors	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
N2	DCN Wards / Health Records Support - (N2)	NA	Staff Room	1	34.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Grab & Go	1	20.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold (small)	1	4.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.

b) Mobile Equipment Bay Recess to be treated as part of room

c) Ressuc Trolley Area Recess to be treated as part of room

d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.

e) Reception & Waiting Combined

f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year

g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
		RHSC Staff Entrance	Staff Reception / Office / Control Base	1	20.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		RHSC Day Case Entrance and Reception	Reception	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			General Office	1	14.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Main Waiting/Play Area	1	50.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Single Rooms ensuite	3	15.0	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			En Suite WC / WHB	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Changing Cubicles	3	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Locker Bay	1	13.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview Rooms	2	12.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Consult/Examination	2	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Physical Measurement Bay	1	3.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		DCN Entrance, Reception & Waiting Facilities with Admissions Suite	Reception, administration office & communication base: 4 staff	1	24.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Duty room: 2 porters	1	5.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admissions Lounge	1	36.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Inpatient Holding Bays (Bed)	2	8.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Inpatient Holding Bays (Chair)	2	4.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Consulting, examination & changing room	3	15.5	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Interview, counselling & quiet room: 5 persons	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Changing Cubicle	1	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		RHSC Pre Theatre Admissions Suite	Immediate Pre Theatre Wait	1	50.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	3	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Operating Theatre Suite	Anaesthetic Room	8	19.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Anaesthetic room: emergency operations	1	29.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Operating Theatre	9	55.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Minor Procedures Room	1	19.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Scrub-up (single)	9	11.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Preparation Room	9	12.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Utility Room	5	14.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Exit Bay	5	12.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Burns Bathroom	1	20.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
		Intra Operative MRI	MRI Room	1	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - MRI	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Equipment Room - MRI	1	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Bay	2	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Sub-Wait Area	1	4.5	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC Accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Preparation Room	1	14.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
P1	**Operating Theatres & RHSC Surgical Day Case Unit**	**Digital Angiography**	Anaesthetic Room	1	19.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Angiography Procedures Room	1	55.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Angiography Procedures Control Room	1	16.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Angiography Procedures Machine Room	1	16.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Preparation Room	1	12.0	Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01	0	F7	43	Not Applicable	0	500	Not Applicable	10,000 - 100,000	A	80	Switch	Floor 0m	See Guidance Notes	2
			Sterile Supplies Store	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
		Support Space	X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Image Intensifier Bay	3	4.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Satellite Pharmacy Store	1	6.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Sterile Supplies Store	1	94.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Clinical Equipment Store	1	60.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Clinical Equipment Store	1	30.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	1	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Scopes Store	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Decontaminated Scopes Store	1	8.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Medical Gas Cylinder Store	1	4.0	Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	Not Applicable	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	2	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	15.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Disposal Hold	1	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Store - Plaster	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	Not Applicable	0	500	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
			Parking bay: fibre optic bronchoscope light source trolley DCN	1	1.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Holding Bay Clean	1	12.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	1.5	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	1.8	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Holding Bay Dirty	2	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Laser Printer/CR Room DCN	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		RHSC Patient Pre-Discharge Areas	Post Anaesthetic Recovery	1	145.8	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Recovery Staff Base	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Distressed Parents Lobby	1	2.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Recovery Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Recovery Dirty Utility	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			SDCU Dispensary	1	8.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			SDCU Recovery	1	110.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			SDCU Discharge Lounge	1	40.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Pantry (DCU)	1	8.0	Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			SDCU Post Op Staff Base/Utility	1	10.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Wheelchair Parking Bay	1	1.5	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Interview Room - DCU	2	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Charge Nurse's Office (SDCU)	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Patients	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		DCN Recovery Unit or Post Anaesthetic Care Unit (PACU) Facilities	Recovery bay: post anaesthetic, 1 place	6	13.5	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Recovery room: post anaesthetic, 1 place	2	26.0	Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41	0	500	Not Applicable	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Staff & communication base, enclosed: 3 staff	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Clean Utility	1	12.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Dirty Utility: bedpan disposal & urine test	1	14.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Staff Facilities	Staff Room	1	60.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	4	4.2	Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office - Senior Nurse Theatres	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office - Staff	1	16.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Charge Nurse Office	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC-Staff	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male Staff Changing and Lockers	1	60.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Female Staff Changing and Lockers	1	70.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Footwear Machine Washing Area	1	4.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
			General X-Ray Room	2	33.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Changing Cubicles	5	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Screening Room (fluoroscopy)	1	39.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Preparation Room	1	10.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Ultrasound Room	2	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Dental Room	1	20.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Main Reporting	1	25.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Acute Reporting	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			MRI Reporting	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Processing Area	1	30.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Gamma Camera	2	40.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Gamma Camera Control Area	1	17.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Radioactive Waste Store	1	2.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Ambulant (Hot)	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Injection Room	2	8.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Preparation Room	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		RHSC Main Department	Hot Waiting Area	2	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Cold Waiting Area	2	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Stress Room (myocardial work)	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Counting Laboratory	1	14.0	Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60	0	500	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Admin Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Ambulant (Cold)	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Recovery Area	1	15.0	Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41	0	100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
			Gamma Camera Reporting	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Medical Physics Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Emergency Shower	1	2.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Reception Area	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admin Office	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area - Main Dept	1	50.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	4.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Nappy Change Room with handwash	1	4.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	2	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Reception	1	8.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Admin Office	1	28.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Area	1	35.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Patients	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		DCN Main Department	Acute Reporting	1	25.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Quiet Reporting	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Teleradiology / Reporting	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Doppler Ultrasound	1	16.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Ultrasound Admin Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Resuscitation Trolley Bay	1	1.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Waiting Play Area	1	10.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Patient Interview Room	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dirty Utility	1	9.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		RHSC/DCN Main Department Shared	Store Room	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposal Hold	2	10.0	Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			IPS Room	1	1.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Linen Bay	2	1.5	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Photocopy Room	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
Q1	Radiology		MRI Room	1	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - CT/MRI	1	24.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Room - MRI	1	16.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			CT Room	1	36.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Baby/Infant Feeding Room	1	4.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		RHSC MRI/CT (1 MRI Scanner)	Induction Area - 1 place	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Recovery Area - 1 place	1	16.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Waiting Area	1	12.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Trolley Bay	2	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Adult Waiting Area	1	8.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible & change	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC - Wheelchair accessible	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Accessible Changing Cubicle	2	6.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			CT Room	1	36.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - CT	1	16.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Preparation Room	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Injection Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		DCN CT	Changing Cubicles	2	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Inpatient Holding Bays	1	43.2	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Toilets	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disabled Toilet	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			MRI Room	2	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
			Control Room - MRI	1	24.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Room	2	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Preparation Room	1	14.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Injection Room	1	12.0	Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41	0	300	Not Applicable	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
			Sub Wait	1	6.0	Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
		DCN MRI (NHS 2 Scanners)	Changing Cubicles	6	4.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Recovery Bays	1	8.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Toilets	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disabled Toilet	1	4.5	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

A43133429

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
		DCN University Research Scanner	MRI Room	1	45.0	Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41	0	300	Not Applicable	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	t
			Control Room - MRI	1	24.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Room	1	16.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Server Room	1	6.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Data Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Equipment Store	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			University Staff Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Controlled Area Shared Space	Store Room	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Dirty Utility	1	9.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			IPS Room	1	3.0	IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Clean Utility	1	10.0	Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41	0	150	Not Applicable	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
		Staff Accommodation	Male Staff Changing and Lockers	1	27.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Female Staff Changing and Lockers	1	65.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Resource Room/Library	1	39.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Office Space	Consultant Office (5 person)	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Consultant Office (5 person)	2	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Registrars Office (5 desks)	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Superintendent/PACS Manager/Radiographers/Nursing Office	1	28.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	1	9.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	2	6.0	Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
R1	Clinical / Management Suite	Second Floor Space	2nd Floor Desks	1	234	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	143.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	180.4	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	221.4	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	69.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	147.6	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			2nd Floor Desks	1	180.4	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	7	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	2	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	18	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair Accessible	2	4.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Male)	1	17.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Male)	1	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Female)	1	18.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Female)	1	21.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store (Clinical)	4	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	3	3.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Printer/Photocopier Room	4	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room (2nd floor)	1	24.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	2	7.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Disposal Hold (small)	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		4th Floor Space	4th Floor Desks	1	213	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 4 person	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Meeting Room - 6 person	1	9.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	4	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Management/Conference Room	2	26.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Wheelchair Accessible	1	4.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Male)	1	8.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC - Staff (Female)	1	11.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store(Management)	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store(Management)	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Beverage Bay	1	3.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Printer/Photocopier Room	1	6.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Staff Room (4th floor)	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Disposal Hold (small)	1	4.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
R2	Health Records	NA	Receipt / Dispatch Counter	1	6.0	Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Trolley Area	1	6.0	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			RHSC Office - 3 Person	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			RHSC & DCN Records Library (160,000 records)	1	368.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Assistant Health Records Manager / Supervisors	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			WC Staff	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			RHSC / DCN Office - 17 Person	1	69.7	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .
h) Staff Rest assumed to have openable windows without 100mm restrictors for natural ventilation and occupancy factor of 0.8.

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Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
S1	Kitchen	NA	Receipt Bay	1	3.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		General Storage	Dry Goods	1	9.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Kitchen Equipment	1	6.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Refuse	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Disposables / Detergent	1	6.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
		Cold Stores	Veg Store	1	6.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Raw Meat	1	7.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Dairy Store	1	9.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Freezer	2	5.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
		Kitchen	Preparation/Cooking Area	1	110.0	Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60	0	500	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Diet Prep Area	1	12.0	Ward Kitchen	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Diet Store	1	5.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Pan Wash	1	12.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Temperature Controlled Sandwich Prep	1	18.0	Ward Kitchen	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Weighing	1	7.0	Ward Kitchen	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Clean Trolleys Park	1	21.5	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bakery Preparation	1	13.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
		Return Area	Returned Trolleys	1	25.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
			Trolley Wash Area	1	6.0	Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	Not Applicable	60	0	300	Not Applicable	None	A	80	Switch	General working plane 1m	See Guidance Notes	Not Applicable
		Offices	Office (5 person)	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
		Staff Accommodation	Female Staff Changing inc Shower	1	13.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Male Staff Changing inc Shower	1	10.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff Room	1	8.0	Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S2	e-Health Infrastructure	NA	Core Server Room	1	40.0	IT equipment (comms server)	Manufacturer Dependant	Manufacturer Dependant	None	None	Yes	Independent Full Duty Standby cooling with UPS back-up	Central General Extract	2	2	Balanced	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
S3	Domestic Services	NA	Domestic Services Office	1	20.5	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Sanitary Bins Store	1	6.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bulk Equipment Store	1	10.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Supplies Store	1	20.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Pool (Clean)	1	32.0	Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Linen Pool (Dirty)	1	32.0	Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S4	Materials Management	NA	Storage/Holding Area	1	100.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Porters office	1	12.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Office	1	10.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Mailroom	1	20.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
S5	Central Staff Changing	NA	Female Staff Changing , Shower, WC & Lockers	1	240.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male Staff Changing , Shower, WC & Lockers	1	100.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bay for Token Machine	1	5.0	Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes	0	G4	43	41	0	300	Not Applicable	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
S6	Estates	NA	Workshop (NPD)	1	45.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Workshop (NHSL)	1	30.0	Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			Store	1	30.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Office	1	15.0	Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	Not Applicable
			BMS Room	1	10.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Staff Change	1	15.0	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Staff WC	1	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Shower	2	2.5	Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	200	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S7	Restaurant	NA	Restaurant	1	157.0	Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41	0	200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable
			Storage/Dishwashing	1	25.0	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Male WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			DSR	1	7.0	DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	Not Applicable	0	100	Not Applicable	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	Not Applicable
			Female WC	2	3.0	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S8	Sterile Support Store	NA	Trolley Holding Bay	1	23	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
S9	Helipad Support	NA	RFFS Changing / Support	1	29	Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41	0	100	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			Bed Bay	1	3.4	Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			WC Ambulant	1	3	Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable
			RFFS Medical Equipment Store	1	6	Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	Not Applicable	0	200	Not Applicable	None	A	80	Presence detection	Floor 0m	See Guidance Notes	Not Applicable

Notes

a) Linen Bay recess to be treated as part of room.
b) Mobile Equipment Bay Recess to be treated as part of room
c) Ressuc Trolley Area Recess to be treated as part of room
d) Consult Exam Room - note 10ac/hr not allowed for unless room title listed as Treatment Room.
e) Reception & Waiting Combined
f) Internal Temperatures should not exceed 28 deg C (db) for more than 50hrs per year
g) Offices assumed to have openable windows without 100mm restrictors for natural ventilation .

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Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
T1	Plant	NA	IT Node Rooms	25	9.0	IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	Not Applicable	Not Applicable	0	300	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	Not Applicable

U1 Shelled Space

Dept Code	Dept Name	Department Sub Group	Room Name	Qty	Area (m2)	Room Function	Temperature		Heating		Cooling Present	Cooling Type	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location Group
							Design Maximum deg C	Design Minimum deg C	Type	Control			Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		
U1	Shelled Space	NA	Shelled Space	1	320.0	To Be Confirmed																							

Environmental Matrix Comments - 13 October 14

The Board has the following initial technical comments on the draft 1 of the Environmental Matrix;

1. The submitted Environmental Matrix does not reflect the current Schedule of Accommodation, e.g. theatres and DCN acute care changes are not included. IHSL to provide up to date Environmental Matrix.

2. Issues within the guidance notes relating to:
    a. Environmental Matrix still dated as version 13 issued 19th September 2012,
    b. Humidification, the requirement is for the space for future installation,
    c. HK Design reference to be removed.

3. The detail contained in the Clinical Output Specification requires theatre temperatures to be able to be raised to 31°C for certain operations. IHSL to reflect this in the Environmental Matrix.

4. Body view rooms to be able to reduce temperature for body storage. IHSL to reflect this in the Environmental Matrix.

5. Room descriptions are given but no room numbers shown – IHSL to add room numbers.

6. SHTM 03-01 clause 2.11 states;

    "Internal temperatures in patient areas should not exceed 28°C db for more than 50 hrs per year", however the Board added an additional BCR clause regarding the 25°C as clarified below:

    *"*Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of any room or area does not exceed the maximum acceptable level of 25°C for more than 50 hours per annum".

    Further review and development of the Environmental Matrix is required to clarify the following;
    a. There are some rooms at 28°C which are provided with comfort cooling.
    b. There are areas / rooms in the Environmental Matrix that contradict the above BCR clause, hence once IHSL produce an updated Environmental Matrix, further discussion is required with the Board to confirm which rooms or areas are not going to meet the Clause.

7. Bedrooms 4ac/hr, SHTM says 6 ac/hr
    Bedrooms have no extract
    Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr
    Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure
    The supply air to a bedroom has to be balanced with extract
    e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr
    En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr
    To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr

8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr

9. Query DSR at 10 ac/hr, this seems high for a predominantly empty room – IHSL to confirm if this correct?
10. Query disposal hold extract 10 ac/hr, this seems high – IHSL to confirm if this correct?

11. Public telephone booth area of $2m^2$ fitted with a radiant panel – IHSL to confirm if this correct?

12. Colour rendering all stated as 80 where certain areas should be 90.

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MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
General Correspondence	MM-GC-000339	BMCE-GC-001193

Re: RE: Environmental Matrix

From	Maureen Brown - Mott MacDonald Ltd (Head Office UK)
To (5)	BMEdinburgh DocControl - Brookfield Multiplex Construction Europe
	Graeme Greer - Mott MacDonald Ltd (Head Office UK)
	Colin MacRae - Mott MacDonald Ltd (Head Office UK)
	Mr Andrew Wholley - Mott MacDonald Ltd (Head Office UK)
	NHSL RHSC + DCN - NHS Lothian
Cc (9)	Ms Anne Alexander - Bouygues E&S FM
	Mr Didier Blanchet - Bouygues E&S FM
	Mr Matthieu Dannoot - Bouygues E&S FM
	Mr Panya Upama - Bouygues E&S FM
	Mr Graham Coupe - Brookfield Multiplex Construction Europe
	Mr Ken Hall - Brookfield Multiplex Construction Europe
	Mr George Miller - Brookfield Multiplex Construction Europe
	Mr David Stillie - Mott MacDonald Ltd (Head Office UK)
	Mr Brian Currie - NHS Lothian
Sent	Tuesday, 14 October 2014

MESSAGE

Liane,

Please find attached the Boards initial technical comments on the draft 1 Environmental Matrix.

Kind regards,

Mo

From: B DocControl
Sent: 29/09/2014 7:49:31 AM BST (GMT +01:00)
To: Maureen Brown, Graeme Greer, Colin MacRae, Andrew Wholley, NHSL RHSC + DCN
Cc: Anne Alexander, Didier Blanchet, Matthieu Dannoot, Panya Upama, Graham Coupe, Ken Hall, George Miller
Mail Number: BMCE-GC-001193
Subject: RE: Environmental Matrix

A43133429

Maureen,

Please see attached RHSC DCN RDS Environmental Matrix in excel format as requested.

Best Regards

Anne

BM Edinburgh Document Control

RHSC and DCN
Little France
Edinburgh
Scotland

Environmental Matrix Comments - 13 October 14
(Received week beginning 20 October 2014)

The Board has the following initial technical comments on the draft 1 of the Environmental Matrix;	**IHSL Update 27 October 2014**
1. The submitted Environmental Matrix does not reflect the current Schedule of Accommodation, e.g. theatres and DCN acute care changes are not included. IHSL to provide up to date Environmental Matrix.	Theatre requirements are contained within the guidance notes section. The document will be updated to include these rooms as per item 5 below.
2. Issues within the guidance notes relating to:	
a. Environmental Matrix still dated as version 13 issued 19th September 2012,	Date has been removed.
b. Humidification, the requirement is for the space for future installation,	Guidance notes amended accordingly.
c. HK Design reference to be removed.	Reference removed.
3. The detail contained in the Clinical Output Specification requires theatre temperatures to be able to be raised to 31°C for certain operations. IHSL to reflect this in the Environmental Matrix.	Guidance notes amended accordingly.
4. Body view rooms to be able to reduce temperature for body storage. IHSL to reflect this in the Environmental Matrix.	Is understood that this room requires a room temperature of 8 deg C. The guidance note has been amended however it is noted that this will require a specialist refrigeration unit and the building fabric will require to be insulated and appropriate finishes selected similar to a walk in cold room.
5. Room descriptions are given but no room numbers shown – IHSL to add room numbers.	The matrix shall be room types for each department with quantities. A cross reference to room numbers shall be added for RDD.
6. SHTM 03-01 clause 2.11 states;	
"Internal temperatures in patient areas should not exceed 28°C db for more than 50 hrs per year", however the Board added an additional BCR clause regarding the 25°C as clarified below:	Rooms at 25°C are identified within the matrix.
"Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of any room or area does not exceed the maximum acceptable level of 25°C for more than 50 hours per annum".	This is not agreed for all rooms. Refer to Environmental Matrix for individual room temperatures.

The Board has the following initial technical comments on the draft 1 of the Environmental Matrix;	**IHSL Update 27 October 2014**
Further review and development of the Environmental Matrix is required to clarify the following;	The BCR's allow for several rooms to go to 28 deg C and we have not received a change order to reduce the temperature in these rooms.
a. There are some rooms at 28°C which are provided with comfort cooling.	We understand that Internal temperatures in these rooms should not exceed 28°C db for more than 50 hrs per year
b. There are areas / rooms in the Environmental Matrix that contradict the above BCR clause, hence once IHSL produce an updated Environmental Matrix, further discussion is required with the Board to confirm which rooms or areas are not going to meet the Clause.	As indicated during the workshops we do not consider this as a contradiction. The BCR has two clauses one for specific rooms based on the 25°C and another for rooms on the 28°C criteria.
7. Bedrooms 4ac/hr, SHTM says 6 ac/hr Bedrooms have no extract Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure The supply air to a bedroom has to be balanced with extract e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr	The scheme is based on the Reference design throughout which is essentially mixed mode with openable windows and 2/3rds mechanical supply air to all bedrooms. This gives physiological benefits with access to fresh air control by user and obvious Energy benefits. We have amended the environmental schedule to show the room being balanced which is provided by the opening window.
8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr	15 ac/hr utilised with the current design, matrix amended accordingly.
9. Query DSR at 10 ac/hr, this seems high for a predominantly empty room – IHSL to confirm if this correct?	We have reviewed this and have amended the matrix to indicated 6 ac/hr.
10. Query disposal hold extract 10 ac/hr, this seems high – IHSL to confirm if this correct?	We have reviewed this and have amended the matrix to indicated 6 ac/hr.
11. Public telephone booth area of $2m^2$ fitted with a radiant panel – IHSL to confirm if this correct?	We have reviewed this and have removed this item. The area will be heated from the adjacent space.
12. Colour rendering all stated as 80 where certain areas should be 90.	We have reviewed this and have amended the matrix accordingly

RHSC and DCN (Preferred Bidder)
Little France
Edinburgh
Scotland United Kingdom

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
General Correspondence	BMCE-GC-001410	BMCE-GC-001193

Fwd: RE: Environmental Matrix

From	Mr Ken Hall - Brookfield Multiplex Construction Europe
To	Colin MacRae - Mott MacDonald Ltd (Head Office UK)
Cc (2)	Maureen Brown - Mott MacDonald Ltd (Head Office UK)
	Graeme Greer - Mott MacDonald Ltd (Head Office UK)
Sent	Tuesday, 28 October 2014

MESSAGE

Colin

Attached is the draft response document from WW for the matrix. Can you please review and let me know if you have any further queries or require clarification on any points. We have issued clarification on point 4 as per RFI issued today.

Thanks

Ken

From: J Bushfield
Sent: 28/10/2014 9:44:35 AM GMT (GMT +00:00)
To: Ken Hall, Brian Rutherford
Cc: John Bushfield
Mail Number: WWHIT-GC-000057
Subject: Re: RE: Environmental Matrix

Ken

Please see attached detailed response. We have updated the matrix, do you wish a copy by email or uploaded directly ?

Regards

John Bushfield

From: K Hall
Sent: 23/10/2014 9:26:58 AM BST (GMT +01:00)
To: Brian Rutherford

Cc: John Bushfield
Mail Number: BMCE-GC-001354
Subject: Fwd: RE: Environmental Matrix

Hi Brian

Matrix comments which i understand WW have reviewed. We just require matrix updated and comments worked through please.

Ken

From: M Brown
Sent: 14/10/2014 3:29:50 PM BST (GMT +01:00)
To: BMEdinburgh DocControl, Graeme Greer, Colin MacRae, Andrew Wholley, NHSL RHSC + DCN
Cc: Anne Alexander, Didier Blanchet, Matthieu Dannoot, Panya Upama, Graham Coupe, Ken Hall, George Miller, David Stillie, Brian Currie
Mail Number: MM-GC-000339
Subject: Re: RE: Environmental Matrix

Liane,

Please find attached the Boards initial technical comments on the draft 1 Environmental Matrix.

Kind regards,

Mo

From: B DocControl
Sent: 29/09/2014 7:49:31 AM BST (GMT +01:00)
To: Maureen Brown, Graeme Greer, Colin MacRae, Andrew Wholley, NHSL RHSC + DCN
Cc: Anne Alexander, Didier Blanchet, Matthieu Dannoot, Panya Upama, Graham Coupe, Ken Hall, George Miller
Mail Number: BMCE-GC-001193
Subject: RE: Environmental Matrix

Maureen,

Please see attached RHSC DCN RDS Environmental Matrix in excel format as requested.

Best Regards

Anne

BM Edinburgh Document Control

RHSC and DCN
Little France
Edinburgh
Scotland

Royal Hospital for Sick Children and Department for Clinical Neurosciences - Edinburgh

RHSC / DCN RDS Environmental Matrix

Dept Code	Index
~	Cover
~	Guidance Notes
~	Room Function Reference Sheet
A1 - A4	Front Door - A&E / Assessment Ward
B1	Critical Care / HDU / Neonatal Surgery
C1- C5	RHSC In Patient Pathway / Ward Care
D1 - D10	RHSC Ambulatory Care
E1	Pod
F1	Child and Adolescent Mental Health
G2 - G3	Clinical Support
H1 - H3	Academic
I1 - I2	Facilities / Infrastructure Support Services
J1 - J2	Patient / Family Support
K1 - K2	Family Facilities
L1 - L2	DCN In Patient Pathway / Ward Care
M1- M4	DCN Support Space
N1	DCN Out Patient Departments
P1	Combined Theatres
Q1	Combined Radiology
R1 - R2	Office / Admin Support Services
S1 - S7	Combined Facilities / Infrastructure Support Services
T1	Plant
U1	Shelled Space

Rev	By	Description	Date

Environmental Matrix - Guidance Notes

1 This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets.

2 The services matrices are produced from the Schedule of Accommodation Sheets.

3 The design of the HVAC systems to the theatres shall be in accordance with SHTM 03-01.

4 Where radiant panels are indicated in any room in these matrices, detailed design development may remove the need for these without detriment to environmental temperature. This design development is dependant on actual room layout - i.e. whether a room is located adjacent to an external wall, ground bearing floor, roof surface or is internal.

5 Ventilation air change rates and the use of natural ventilation in Patient Areas shall be reviewed throughout the detail design process to ensure a maximum internal temperature of 25°C (dry bulb) is not exceeded during normal occupancy. This criteria shall also apply to cellular and open plan office spaces.

6 Maximum internal temperatures listed relate to normal occupancy and Summer Design Conditions ; External Summer Conditions for Cooling Plant Selection as per SHTM2025,Enthalpy 54kJ/kgda.26deg°Cdb,19deg°C wb. External Winter Conditions as per CIBSE Guide A Table A 2.2 for locality = - 6°C for Heat Losses, and as SHTM 2025 for locality = -10°C for AHU Ventilation Plant design.

7 Examination lamp notes where listed are provisional. Detailed requirements (fixed, mobile, illumination) will be detailed on C sheets as agreed from signed off 1:50 RDS, which shall take precedence over this schedule.

8 All lighting levels are derived from CIBSE Lighting Guide LG2.

9 Colour rendering refers to CIBSE Lighting Design Guide and will be applied throughout.

"80" : Normal
"90" - Enhanced to provide close as possible match to natural light for clinical purposes

10 Thermostatic Mixing Devices - SHTM 04-01 Guidance shall be employed for specific TRV Type versus listed Area/Activity.

11 Standby Lighting to be Grade A throughout .

12 The internal temperature in naturally or mechanically ventilated rooms shall not exceed the maximum temperature as listed on these Environmental Matrices provided external summer design criteria is not exceeded .

13 Local Radiant Panel PICV's shall have adjustable sensors.

14 Local Control BMS Temperature Sensors for ducted reheat zones and chilled water cassettes for hotspots shall be provided with local range adjustment to +/- 2°C of BMS Set Point. BMS set point shall be adjustable via operator/user dialogue through formal FM

15 **Typical bedroom** - Design Criteria - SHTM 03-01 Clause 2.11 - internal temperatures in patient areas should not exceed 28°C db for more than 50 hrs per year. Appendix 1 SHTM 03-01 gives 18°C to 28°C float range. NHSL however require that the maximum internal design temperature should not exceed 25°C for more than 50 hrs per year.

HDU bed areas - Design Criteria - HBN 57 gives specific guidance as well as SHTM 03-01 - Appendix 1 for air change rates - 10ac/hr Supply, 18°C to 25°C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions).

The department will be comfort cooled and controlled on a zonal basis.

Central AHU to be provided with blank section for future provision of humidification.

Post theatre recovery areas - Design Criteria - SHTM 03-01 - Appendix 1 for air change rates - 15ac/hr S&E , 18°C to 25°C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions).

Critical Care areas - Design Criteria - SHTM 03-01 - Appendix 1 for air change rates - 10ac/hr Supply , 18°C to 25°C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions). NHSL may require specific rooms to have a control range up to 28°C.

Central AHU to be provided with blank section for future provision of humidification.

16 **Corridor** ventilation may be either mechanical or where the opportunity exists natural. To be determined during detailed design with due regard to clinical functionality.

17 **Single Room WC** - SHTM 03-01 Appendix 1 suggests 3ac/hr extract air change rate only. We have applied 10ac/hr extract rate to provide a more robust rate of extract.

18 **Diagnostic Rooms** - (X Ray, CT Scanner, MRI Scanners, Gamma Camera) - air change rates listed at 8ac/hr. Actual air change rate must be derived through room heat gain analysis and actual equipment guidance.

19 **Operating Theatre Laminar Flow/UCV Requirements -** Refer to Operational Policy Documents for specific theatres which require Laminar Flow/UCV canopy style ventilation solution.

20 **Small workshop Areas -** Local Extract Ventilation (LEV) unit requirement to be determined from room equipment schedules.

21 **Note that Isolation Suite ventilation solutions for this project shall follow HBN 4 Supplement 1 Section 4 Item 4.8 Guidance i.e.**
A common departmental AHU shall be employed to provide supply air ventilation (and shall therefore employ duty & standby motors).
Isolation Rooms En Suite Extracts shall be provided with an independent Isolation Room toilet extract ventilation system.
Isolation Rooms En Suite Extracts shall be provided with either externally located 3 mtr high discharge stack in a safe location or with extract filters (H14) within a safe change housing outside the building on the suction side of the fan.
Heating & Cooling Isolation Suites shall be provided via the ventilation system.

22 **Retail Provision -** Service provisions listed are Infrastructure only for future fit-out by retailer. (Fire detection shall be provided to assist completion).

23 **Comfort Cooled Fresh Air -** Where noted as such on the matrices, this means as provided via departmental air handling plant via chilled water cooling coils.

24 **Body View Room** to be provided with ceiling cassette incorporating specialist refrigeration based cooling unit to reduce room temperature to 8°C minimum +/- 2°C. Room temperature will be achieved within two hours of plant operation.
This room will have dual function capabilty, normally at 28°C design max temperature and when required go to 8°C for storage and viewing of body.

25 Anti ligature rooms (5no. off) will be treated as sealed rooms with Supply at 6ac/hr and Extract to match to achieve a balanced pressure.

26 **Single Bedroom -** The design philosophy for ventilation is for a mixed mode operation where natural vent is encouraged which has benefits both physicological with users being partly in control, and from an energy stand point where mechanical vent loading is partly reduced (2/3rds). This strategy results in zero pressure differential regime within the room where supply and extract is balanced.

Room Function Reference Sheet.

The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

Room Function	Temperature		Heating		Cooling Present	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
	Design Max deg C	Design Min deg C	Type	Control		Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Bedroom	25	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Balanced	G4	43	41		100	5	300	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	1
Cellular / Ward Offices	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Changing Facilities	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Circulation Areas	28	18	Radiant Panels	Remote Sensor Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes		G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Classroom	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Common room/staff room/lounge	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Consulting Room	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Clean Utility	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41		300	n/a	1000	A	80	switch	General working plane 1m	See Guidance Notes	1
Eating/Drinking	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
Small Workshop	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
Laboratory	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Meeting Room	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Patient Accommodation Day	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Multi-bed Wards	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	5	300	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Physiotherapy Studio	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
Body View	28	8	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Specialist Cooling	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Reception	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a

query

Room Function Reference Sheet.

The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Storage Area Equipment	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Waiting Room	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Treatment Room	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant		F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Resusitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41		100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	n/a		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
Resus Trolley bay	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Relatives Overnight Stay	25	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Pantry	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Multi Disciplinary Work Areas	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Open Plan Office	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Equipment Decontamination	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
Circulation Phone Both	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Recovery Bay / Recovery Room	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	n/a		200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane		Medical Location
					Bathroom		28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Bedroom		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
					Cellular / Ward Offices		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Changing Facilities		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Circulation Areas		28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	Central Supply and Extract or to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
					Circulation Areas - Entrance Lobby		28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Classroom		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Common room/staff room/lounge		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Consulting Room		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
					Clean Utility		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
					Dirty utility		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Diagnostic room		25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
					Eating/Drinking		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Ward Kitchen		28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
					Small Workshop		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					IT equipment (comms server)		25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Kitchen (Commercial)		28	16	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
					Laboratory		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Laundry		28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Meeting Room		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Patient Accommodation Day		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Multi-bed Wards		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Physiotherapy Studio		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
					Body View		28	8	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Specialist Cooling	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
					Reception		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Storage Area Med Gas		28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Storage Area Equipment		28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Tea Making		28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Toilet		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Waiting Room		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Treatment Room		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Isolation Lobby		25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Resusitation Bay		25	21	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Circulation Equipment Storage Bays		28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Isolation Bedroom		25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
					Operating Theatre Suite		25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Disposal Hold		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
					DSR		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
					Resus Trolley bay		28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Baby Feeding		25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Nappy Change		25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Relatives Overnight Stay		28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Pantry		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Linen Bay		28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Multi Disciplinary Work Areas		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Open Plan Office		25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Equipment Decontamination		28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	7	10	Negative	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
					Circulation Phone Booth		28	18	Radiant Panels	Remote Sensor Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Recovery Bay / Recovery Room		28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Staff Base		28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Main Entrance Draught Lobby	2	10.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parking Bay: 6 wheelchairs	1	4.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parking Bay: 3 accident trolleys & 3 wheelchairs	1	12.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception:2 staff	1	16.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area inc Play Area	1	63.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
A1	Emergency Department	Nappy Change	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Triage Room	1	16.0	Consulting Room	X0242-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room: Dual Access (Mental Health)	10	16.0	Treatment Room	X0242-04	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room: Single Access	4	14.0	Treatment Room	X0242-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Plaster Suite (2 bays)	1	24.0	Consulting Room	X0206	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store - Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Quiet Room	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Supplies Base	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Washdown Room	1	16.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		General X-Ray Room	1	33.0	Diagnostic room	E0128	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Consultant Psychiatrist / Psychologist Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Changing Cubicle	1	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Room: 2 places	2	50.0	Resusitation Bay	X0242-06	25	21	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Sitting Room	1	16.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Body Viewing Room	1	10.0	Body View	S0027-01	28	8	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Specialist Cooling	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Laboratory - Near Patient Testing / Status	1	8.0	Laboratory	L1308	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry - Staff / Patient	1	5.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Shower: ambulant	2	2.5	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing Room and Lockers: 20 places	1	11.5	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers: 30 places	1	16.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Secretary/Filing Office	1	18.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Manager's Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview/Meeting Room: 6 persons	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store - Equipment & Supplies	1	18.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Stock & Sterile Supplies	1	18.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dispensing Drugs	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Major Incident / Ambulance Equipment	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Medical Gas Cylinders	1	3.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
A2	Paediatric Acute Receiving Unit - 34 Beds	4 Bed Room	1	63.0	Multi-bed Wards	B0405	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	6	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	6	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception/Staff Base	1	6.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	4	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Isolation Bed Room	1	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	13	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	14	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dining / Play Room	1	37.0	Common room/staff room/lounge	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Head of Department Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laboratory / Finance Manager's Office	1	11.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Senior Academic Staff Office	6	11.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		16 Person Office	1	80.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	10.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	2	1.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
A3	PARU / Emergency / Radiology Shared Support	Meeting / Case Conference Room	1	32.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Seminar & Training Room	1	32.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	1	80.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Area (Visitors)	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	2.0	Circulation Phone Booth	G0710	28	18	Adjacent Space Transfer Air	None	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	7.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office - 4 person	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Base	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Isolation Cubicle	2	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	2	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Cubicle	2	26.0	Bedroom	B1401	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	B1609-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff Base	1	4.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Cubicle	1	26.0	Bedroom	B1401	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	1	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (4 beds)	1	80.0	Multi-bed Wards	B1609-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Base	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Cubicle	1	15.0	Bedroom	B1401	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (3 cots)	1	45.0	Multi-bed Wards	B1407-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff Base	1	4.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Cot Cubicle	1	26.0	Bedroom	B1421	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	1	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	B1609-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	18.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	19.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
B1	PICU and HDU's - 24 Beds	Laboratory	1	10.0	Laboratory	L1804	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry / Milk Store	1	10.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	5.0	Baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Specialist Base & Store	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	3	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Relatives' Sitting Room	1	18.5	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Relatives	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Relative Overnight Stay Room	2	10.0	Relatives Overnight Stay	D1311	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Quiet / Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Family Interview Room	1	12.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Bulk Supplies Store	1	55.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	40.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bed/Patient Chair / Buggy Storage	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Retrieval Equipment Store	1	15.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Service Room	1	24.0	Small Workshop	L1804	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Gas Cylinder Store	2	2.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Cardiac Echo/ECG Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile X-Ray / Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		X-Ray Processing	1	8.0	Diagnostic room	L1804	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	4	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		On call consultant	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Retrieval Team	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Senior Nursing Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Work Area PICU	1	15.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Work Area HDU	1	15.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Seminar Room	1	37.5	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		IPS Room	1	2.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	3.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	32.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom	5	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom	3	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	3	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	8	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	19.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	1	19.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite trolley shower	4	8.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sitting Room / Lounge	1	16.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
C1.1	Medical Inpatients - 23 Beds	Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	2	10.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	20.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	3.0	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - back up clothing	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	18.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Mobile X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.8	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
C1.2	Surgical Long Stay Inpatients 15 Beds	Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wetroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	5	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	5	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Discharge Lounge	1	20.0	Common room/staff room/lounge	D1135	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	1	3.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	13.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - back up clothing	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
C1.3	Neuroscience Inpatients - 12 Beds	Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	1	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Wetroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	2	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	2	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	16.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Store - General	1	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Snoezelen Room	1	12.0	Consulting Room	C0224-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		WC Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Rehabilitation Room	1	30.0	Consulting Room	C0224-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	4	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	4	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	7	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Multi Bed Room: day care, 4 beds & 2 chairs	1	72.5	Multi-bed Wards	B0405-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	12.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	16.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Single Bedroom	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Kitchen/ Lounge/Social Space	1	25.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Study Room	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.4	Haematology / Oncology Inpatients & Daycases - 17 Beds & 2 Chairs	Treatment / Clean Utility	1	18.0	Treatment Room	X0105-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Complementary Therapy Room	1	10.0	Consulting Room	X0613	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Staff Office	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Nursing Staff Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Research Staff Office	1	19.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Room	1	25.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pharmacy Base	1	9.0	Consulting Room	T0151	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Family Sitting Room	1	27.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
C1.5	Med / Surg / Neuro / Haemo Shared Support	Breast Pump Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC-Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C1.6	Adolescent Shared Accommodation	Dining / Recreation Room	1	26.0	Common room/staff room/lounge	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Room / Study	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.7	Paediatric Neurophysiology	EEG Recording Room	2	16.0	Diagnostic room	X0125	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Evoked Potential Recording Room	1	16.0	Diagnostic room	C0800	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		EEG Review Room	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Reception Desk/Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
C1.8	Surgical Short Stay Inpatients 14 Beds	Dining / Play Room	1	15.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	4	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite Shower / WC / WHB	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
C2	Wards Support Areas	Staff Room	1	48.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Seminar Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C3	Special Feeds Unit	Food Prep Area	1	24.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Store - Feeds	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office Ante Room	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wash Room	1	5.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C4	Sleep Lab	Sleep Room	2	15.0	Bedroom	B0704	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parents Room	2	10.0	Bedroom	D1311	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Control Room	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C5	Classrooms	Primary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Upper Primary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secondary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resource Storage	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Administration Area	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Ambulant	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	3.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	10	15.5	Consulting Room	C0224-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Child Protection Room	1	24.0	Consulting Room	C0224-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (Child Protection)	1	15.5	Consulting Room	C0224-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	1	24.0	Consulting Room	C0217	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room (with prep area)	1	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Plaster Suite (3 bays)	1	40.0	Consulting Room	X0206	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store: Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Orthotics Workshop	1	16.0	Small Workshop	K0420	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment / General Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Room	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	2	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
D1	RHSC Main Outpatients Department	Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Specimen/ Disabled WC	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Fully accessible changing room	1	7.0	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area (incl supervised play) with Nurse Base	1	46	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area	1	3.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	4	15.5	Consulting Room	C0224-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (Ophthalmology)	1	15.5	Consulting Room	C0224-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	1	24.0	Consulting Room	C0217	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Equipment / General Store	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Therapy (inc messy play) Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	2	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Shower Room	1	5.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination (Cleft)	2	18.0	Consulting Room	C0224-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (ENT)	3	17.0	Consulting Room	C0224-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store Room	1	1.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room (with prep area)	2	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Outpatients Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room	1	15.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D2	Cardiology & Respiratory	Waiting Area	1	9.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store/ Equipment	1	9.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Staff	1	4.5	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		ECG Procedure Room	1	12.0	Consulting Room	C0718-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Echocardiography Room	1	20.0	Diagnostic room	C0712	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Exercise Tolerance Test Room	1	20.0	Consulting Room	C0718-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Admin Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lung Function Laboratory	1	28.0	Treatment Room	C0718-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Exercise Room/Lung Function Laboratory	1	22.0	Treatment Room	C0715	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Admin Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Domiciliary Sleep Studies	1	12.0	Consulting Room	C0224-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
D3	Orthoptics	Staff Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Parking Bay: pushchairs	1	2.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC & handwash: specimen; wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Examination Room: Fields test	1	16.0	Consulting Room	C0143	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		C/E Orthoptic (6 metre room)	4	15.5	Consulting Room	C0230	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	13.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	3.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
D4	Audiology	Testing/Clinic Rooms	2	21.0	Consulting Room	C0515	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Obs/Control	2	8.0	Diagnostic room	C0516	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		ABR Room	1	16.0	Treatment Room	C0517	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Test Room	1	16.0	Treatment Room	C0517-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Work Room	1	12.0	Small Workshop	L1804	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Mould Room	1	9.0	Small Workshop	L1804	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shared Staff Office	1	32.8	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D5	Paediatric Dentistry	Surgeries (standard)	3	18.0	Operating Theatre Suite	C0903	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Surgery (multi-disciplinary)	1	20.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery	1	10.0	Recovery Bay / Recovery Room	C0522-04	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Laboratory	1	10.0	Laboratory	L1804	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility / Dental Store	1	23.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile Inter-oral Storage	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D6	RHSC Therapies	Rehabilitation Room	4	30.0	Treatment Room	X0208-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Rehabilitation Room (inc CV equip)	1	39.0	Treatment Room	X0208-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Standard Treatment Room	3	15.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room (OT equip)	1	20.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Standard Distraction Free Treatment Room	2	15.0	Consulting Room	C0110-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Large Distraction Free Treatment Room	1	20.0	Consulting Room	C0110-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Dietetic Clinic Room	2	12.0	Diagnostic room	C0224-02	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Splinting / Casting Room	1	18.0	Consulting Room	X0206-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		management office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Office - All specialties (39 person)	1	159.0	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		A&C Staff Office/Appliance Officer	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	6.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Play Area	1	33.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - assisted (large+changing)	1	12.3	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	16.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	2.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - SALT	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	1.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	1.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	24.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	8.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	3.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	13.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - TIP	1	4.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Decontamination	1	10.0	Equipment Decontamination	Y0335	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	7	10	Negative	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dressings / DopplerStore	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
D7	Plastics Dressings Clinic	Sluice	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Telephone Booth	1	4.0	Circulation Areas	G0710	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Dressings Room (Burns)	2	16.0	Consulting Room	X0242	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D8	Social Work	Open Plan Area	1	45.1	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D9	Medical Day Care Unit - 5 Beds	Reception: 2 staff	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office and Storage 2 staff	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Play Area	1	20.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi Bed Room: day care, 3 beds	1	40.5	Multi-bed Wards	B0405-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En Suite WC / WHB	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Treatment Lounge	1	32.4	Treatment Room	X1504	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Parking Bay: 1 patient trolley/whch	1	5.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview, Counselling & Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
D10	Ambulatory Care Shared Support	Staff Room	1	48.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception Desk/Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dining / Play Room	1	15.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	4	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite Shower / WC / WHB	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	63.0	Multi-bed Wards	B0405	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bath / WC / Washing	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	1	9	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	2	2	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Resus Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
E1	Pod	RHSC OPD Reception	1	10.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		RHSC OPD Main Waiting	1	15.0	Waiting Room	J1255	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		RHSC OPD Suite A Sub Waiting	1	54.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Funtional Activity Zone	1	297.0	Patient Accommodation Day	J0232-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC Fully Accessible changing room	4	4.5	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Accessible	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		WC - Ambulant	1	7.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	6.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	18.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Group Room	1	24.0	Meeting Room	H1107	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Control / Viewing	1	10.0	Diagnostic room	E0604-06	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Time Out Room	1	6.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Play Room	1	24.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	1	15.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Group Room	1	24.0	Common room/staff room/lounge	H1107	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	1	15.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Room	10	10.0	Bedroom	B0510	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Room (large)	2	11.5	Bedroom	B0510	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	12	4.5	Bathroom	V1610	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Base - Open Plan Area	1	10.0	Reception	T0151	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		TV / Living Room - Open Plan Area	1	24.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Open Space	1	43.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Room	1	12	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Therapy Room	1	15.0	Consulting Room	X0613	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Group Room	1	24.0	Meeting Room	H1107	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laundry Room	1	6.0	Laundry	Y0521	28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Drug Room	1	6.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
F1	CAMHS - 12 Bed	Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Multidisciplinary Office - Inpatients	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Office - ITS	1	24.6	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Consultant Psychiatrist / Psychologist	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secretary/Filing Office	1	18	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Storage (testing)	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage / Photocopy	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Large Family Interview Room	1	14.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Family Interview Room	1	12.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	4	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower / WC / WHB assisted	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining Room (Inpatients & Day Prog)	1	62.0	Eating/Drinking	D0608-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Therapeutic Kitchen	1	22.0	Ward Kitchen	Q0121	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Large Group Room	1	30.0	Meeting Room	H1107	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Therapy / Play Therapy Room	1	15.0	Common room/staff room/lounge	H0322-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Art Room	1	24.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Recreation Room	1	45.0	Common room/staff room/lounge	H0322-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Manager Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Quiet Zone	1	11.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Equipment	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
G2	Equipment Librar	Clean Equipment	1	50.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
G3	On-Call Suite	On-Call Bedroom	3	10.0	Bedroom	D1311	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mini Kitchen	1	3.6	Eating/Drinking	D0608-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
H1	Child Life & Health	Seminar / Tutorial Room	2	40.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Conference / Meeting Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lockers	1	12.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Ambulant	4	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Admin Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Head of Department	1	16	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laboratory / Finance Manager's Office	1	11	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Student Records Store	1	12.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Senior Academic Staff	6	11	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		16 Person Office	1	80	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Stationery / Photocopying	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Tissue Culture Room	1	9.0	Laboratory	L0102-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Freezer Store	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physiological Laboratory	1	45.0	Laboratory	L0102-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Molecular Biology Laboratory	1	45.0	Laboratory	L0102-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
H2	Clinical Research Facility	Waiting Play Area	1	9.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Study Room	1	63.0	Consulting Room	B0405-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		En Suite Shower / WC / WHB	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Room	2	15.0	Bedroom	B0305-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En Suite Shower / WC / WHB	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Accessible Patients	1	3.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	6.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult / Assessment	1	12.0	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		WC Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	24.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sample Processing	1	15.0	Diagnostic room	L1804	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Office - 4 person	1	20	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
H3	Clinical Education Suite	Seminar Room	1	40.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Scenario Room	1	20.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Control Room	1	8.0	Diagnostic room	C0516	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Workshop / Tutorial Room	3	20.0	Classroom	H0202-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	m/a
		Practice Based Educators Office	1	20	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Management/ Admin Office	1	15	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Manual Handling, Health & Safety	1	15.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Storage	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC / WHB disabled	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Lockers	1	8.0	Circulation Equipment Storage Bays	V0653	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Computer Carrels	6	2.0	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
I1	Main Entrance - Public Spaces	Draught Lobby	1	15.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception / Information Desk	1	12.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	16.5	Waiting Room	J1155	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	2.0	Circulation Phone Booth	G0710	28	18	Radiant Panels	Remote Sensor Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Fire Control room	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assisted Change/Nappy Change	1	7.0	Nappy Change	V1131	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Security Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Areas	G0180-02	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
I2	Bed & Toy Stores	DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Beds	1	96.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Toys	1	12.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
J1	Bereavement Suite	Body Viewing Room	1	18.0	Body View	S0027-01	25	8	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Specialist Cooling	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Lobby	1	3.0	Circulation Areas - Entrance Lobby	G0800	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sitting Room with Beverage Bay	1	20.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
J2	Ritual & Pastoral C	Prayer / Meditation / Reflection Area	1	40.0	Common room/staff room/lounge	D0434-04	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC wheelchair accessible / Ritual Washing Area	1	6.0	Toilet	V0922-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting	1	8.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Meeting Rooms (family size)	2	15.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Drop-In Lounge / Beverage Bay	1	35.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Drop-In Multi-Purpose Room	1	39.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Complementary Therapy Room	1	15.0	Consulting Room	X0613	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Interview Rooms	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Radio Lollipop Broadcasting Studio, Lobby	1	20.0	Circulation Areas	C0516-01	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Office 1	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 2	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 3	1	10	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
K1	Family Support	Office 4	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 5	1	19.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 6	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	20.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Changing Room	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception/Waiting	1	6.0	Waiting Room	J0232-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Office - 1 person	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lounge - non residents	1	30.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Female	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Male	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Family Room accessible for 4 persons inc en-suite	2	48.0	Bedroom	D1311-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Family Room for 4 persons inc en-suite	24	19.0	Bedroom	D1311-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Kitchen / Dining Rooms	1	116.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
K2	Family Hotel	Residents Day Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Residents Play Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Bathroom	1	8.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	2	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laundry	2	15.0	Laundry	Y0521	28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	26	6.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage - refuse	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area, relatives	1	30.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office / Reception	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Refreshment: Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Visitor toilets, baby changing	2	4.5	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC: Independent Wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview/Relatives Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consulting/Examination Room	4	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Patient Waiting	1	20.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Receiving/Resuscitation area	1	30.0	Resusitation Bay	B1411	25	21	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Relatives Overnight Stay Room	1	10.0	Relatives Overnight Stay	D1311	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ensuite Accessible Shower/Wc/WHB	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Room	12	19.0	Bedroom	B0305	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Ensuite Shower/Wc/WHB	12	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (level 1)	12	19.0	Bedroom	B0305	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Shower Room:en-suite	12	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	4	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
L1	DCN Acute Care - 24 Beds	Multi-disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Base	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Interview/Relatives Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teaching Room	1	20.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Hoist Bay	2	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	2	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Consumables	1	18.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Stationery	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	9.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		WC Staff	3	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC: Semi Ambulant	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC: Independent Wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	41	19.0	Bedroom	B0305	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	Balanced	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom	2	19.0	Isolation Bedroom	B0308-??	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	2	4.0	Isolation Lobby	G0510-02	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower Room:en-suite	43	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	2	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	12	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
L2	DCN Inpatients 43 Beds	Teaching Room	1	20.0	Classroom	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	2	12.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

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Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Pantry	2	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Hoist Bay	5	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	2	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	2	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	3	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	2	16.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		WC: Staff	4	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
M1	DCN Outpatients	Enquiry / Information Desk: 2 staff	1	8.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Records Store	1	8.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Main Waiting	1	59.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	1.5	Circulation Phone Booth	G0710	28	18	Radiant Panels	Remote Sensor Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Public Telephone: Single Booth, Accessible	1	2.0	Circulation Phone Booth	G0712	28	18	Radiant Panels	Remote Sensor Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Fully Accessible Changing Room	1	7.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Refreshment: Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Nurse Base	1	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination	15.5	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	2	24.0	Consulting Room	C0207-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room (with prep area)	1	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store - Equipment / General	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Nurse Base	1	2.0	staff base	T0151	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Consulting Room	V0922	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination	4	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Multi-Disciplinary Office	1	26.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility: urine test	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Outpatients Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: Clinical Supplies, Equipment & Stationery	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
M2	DCN Therapies	Waiting	1	18.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff Lockers	1	4.5	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		ADL Kitchen	1	22.0	Pantry	Q0120	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		ADL Bathroom, Shower, WC with hoists	1	13.0	Toilet	V1736-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physio Treatment Room	1	15.0	Physiotherapy Studio	X0105-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Multi-Purpose Rehabilitation Room	1	80.0	Physiotherapy Studio	X0318	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Distraction Free Treatment Room	2	15.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Store: General/Equipment	1	25.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: General/Equipment	1	20.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: General/Equipment	1	5.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	4	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Office	1	65.6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Toilet	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Toilet	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
	Programmed	Waiting area; 4 & 2 wheelchairs	1	17.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
M3	Programmed Investigations Unit	Treatment Area	1	45.0	Treatment Room	X0111	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
M4	DCN Neurophysiology	Waiting Area (DCN)	1	15.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - wheelchair accessible (DCN)	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		EEG Recording Room	3	16.0	Diagnostic room	X0125	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		EMG/Nerve Conduction Room	3	16.0	Diagnostic room	X0136	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		VTEM/Ambulatory Review Room	1	20.0	Diagnostic room	M0251	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Reporting Room	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		HOD Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clinical Physiologist Room	1	24.6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secretarial Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Quiet Room	1	10.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store / Records	1	32.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
N1	DCN Entrance	Reception / Information Desk	1	6.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Draught Lobby	1	9.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	8.0	Waiting Room	J1155	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Vending Machine	1	3.0	Circulation Areas	P0808	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
N2	DCN Wards / Health Records Support - (N2)	Staff Room	1	34.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Reception / Office / Control Base	1	20.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Main Waiting/Play Area	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Rooms ensuite	3	15.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En Suite WC / WHB	3	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	3	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Locker Bay	1	13.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview Rooms	2	12.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consult/Examination	2	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Physical Measurement Bay	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Reception, administration office & communication base: 4 staff	1	24.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Duty Room: 2 porters	1	5.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admissions Lounge	1	36.0	Common room/staff room/lounge	D2155	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consulting, examination & changing room	3	15.5	Consulting Room	C0224	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Interview, counselling & quiet room: 5 persons	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Changing Cubicle	1	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Immediate Pre Theatre Wait	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Anaesthetic Room	8	19.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Anaesthetic room: emergency operations	1	29.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Operating Theatre	9	55.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Minor Procedures Room	1	19.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Scrub-up (single)	9	11.0	Operating Theatre Suite	N0224	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Preparation Room	10	12.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Utility Room	5	14.0	Operating Theatre Suite	Y0431-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Exit Bay	5	12.0	Operating Theatre Suite	G0407	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
P1	Operating Theatres & RHSC Surgical Day Case Unit	MRI Room	1	45.0	Diagnostic room	E0801-02	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	16.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room - MRI	1	16.0	Storage Area Equipment	E0311	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Bay	2	4.0	Circulation Equipment Storage Bays	J1264	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub-Wait Area	1	4.5	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC Accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Anaesthetic Room	1	19.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Room	1	55.0	Operating Theatre Suite	E0311	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Control Room	1	16.0	Operating Theatre Suite	X0216	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Machine Room	1	16.0	Operating Theatre Suite	E0311	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Preparation Room	1	12.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Sterile Supplies Store	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Image Intensifier Bay	3	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Satellite Pharmacy Store	1	6.0	Clean Utility	T0526-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Sterile Supplies Store	1	94.0	Clean Utility	T0526-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clinical Equipment Store	1	60.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Equipment Store	1	30.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Scopes Store	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Decontaminated Scopes Store	1	8.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Medical Gas Cylinder Store	1	4.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	15.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Parking bay: fibre optic bronchoscope light source trolley DCN	1	1.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Holding Bay Clean	1	12.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.5	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.8	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central Supply and Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Holding Bay Dirty	2	6.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laser Printer / CR Room DCN	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Post Anaesthetic Recovery	1	145.8	Recovery Bay / Recovery Room	B2417	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery Staff Base	1	12.0	Cellular / Ward Offices	M0254	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Recovery Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Recovery Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		SDCU Dispensary	1	8.0	Clean Utility	T0526-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		SDCU Recovery	1	110.0	Recovery Bay / Recovery Room	B2517	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		SDCU Discharge Lounge	1	40.0	Common room/staff room/lounge	D1135	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry (DCU)	1	8.0	Pantry	P0627	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		SDCU Post Op Staff Base/Utility	1	10.0	staff base	T0151-??	28	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wheelchair Parking Bay	1	1.5	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview Room - DCU	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Charge Nurse Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Patients	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery bay: post anaesthetic, 1 place	6	13.5	Recovery Bay / Recovery Room	B2417-01	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery room: post anaesthetic, 1 place	2	26.0	Recovery Bay / Recovery Room	B2417-01	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff and communication base, enclosed 3 staff	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility: bedpan disposal & urine test	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	60.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Dictation/ 1:1/Phone Booth	4	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office Senior Nurse Theatres	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office Staff	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Charge Nurse Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC-Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing and Lockers	1	60.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers	1	70.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Footwear Machine Washing Area	1	4.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		General X-Ray Room	2	33.0	Diagnostic room	E0128	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Changing Cubicles	5	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Screening Room (fluoroscopy)	1	39.0	Diagnostic room	E0218-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Preparation Room	1	10.0	Consulting Room	T0526-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Ultrasound Room	2	16.0	Diagnostic room	E0115	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Dental Room	1	20.0	Consulting Room	E0135	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Main Reporting	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Acute Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		MRI Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Processing Area	1	30.0	Diagnostic room	M0251	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Gamma Camera	2	40.0	Diagnostic room	E0176	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Gamma Camera Control Area	1	17.0	Consulting Room	E0604-04	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Radioactive Waste Store	1	2.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant (Hot)	2	4.5	Toilet	V0922-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Injection Room	2	8.0	Consulting Room	E0715	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Hot Waiting Area	2	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Cold Waiting Area	2	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Stress Room (myocardial work)	1	14.0	Consulting Room	C0224-04	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Counting Laboratory	1	14.0	Laboratory	L1804	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Admin Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Ambulant (Cold)	1	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery Area	1	15.0	Recovery Bay / Recovery Room	C0522-04	28	20	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Gamma Camera Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Physics Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Emergency Shower	1	2.5	Bathroom	V1643-01	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception Area	1	8.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	10	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area - Main Dept	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change Room with handwash	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	28.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	35.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Patients	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Acute Reporting	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Quiet Reporting	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teleradiology Reporting	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Doppler Ultrasound	1	16.0	Diagnostic room	E0113	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Ultrasound Admin Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Play Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Utility	1	9.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
Q1	Radiology	Store Room	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Photocopy Room	1	6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - CT/MRI	1	24.0	Cellular / Ward Offices	E0604-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room - MRI	1	16.0	IT equipment (comms server)	E0311	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		CT Room	1	36.0	Diagnostic room	E0601-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	Remote Sensor Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Induction Area - 1 place	1	16.0	Treatment Room	X0145-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery Area - 1 place	1	16.0	Treatment Room	B2417-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Trolley Bay	2	4.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Adult Waiting Area	1	8.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible & change	1	7.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		CT Room	1	36.0	Diagnostic room	E0601	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - CT	1	16.0	Cellular / Ward Offices	E0604-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Injection Room	1	12.0	Treatment Room	E0715	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	90	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Inpatient Holding Bays	1	43.2	Circulation Equipment Storage Bays	J0132-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Toilets	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disabled Toilet	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		MRI Room	2	45.0	Diagnostic room	E0801-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	24.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room	2	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Injection Room	1	12.0	Consulting Room	E0715	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Sub Wait	1	6.0	Waiting Room	J0132-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	6	4.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery Bays	1	8.0	Circulation Equipment Storage Bays	B2417-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Toilets	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disabled Toilet	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	24.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room	1	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		University Staff Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store Room	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	9.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	3.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	10.0	Clean Utility	T0101	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing and Lockers	1	27.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers	1	65.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resource Room / Library	1	39.0	Open Plan Office	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	2	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Registrars Office (5 desks)	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Superintendent/PACS Manager/Radiographers/Nursing Office	1	28.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	2	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	233.7	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	143.5	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	180.4	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	221.4	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	69.7	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	147.6	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	180.4	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	7	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	18	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	17.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	11.0	toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	18.0	toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	21.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Clinical	1	24.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Printer/Photocopier Room	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
R1	cal Management	Staff Room	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		4th Floor Desks	1	213.0	Open Plan Office	M0132-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	4.0	Meeting Room	H1313-02	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	2	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Management Conference Room	2	26.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair Accessible	1	4.5	toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	8.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	11.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Management	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store Management	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Printer/Photocopier Room	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	2	6.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
R2	Health Records	Receipt / Dispatch Counter	1	6.0	Reception	J0132-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Trolley Area	1	6.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RHSC Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		RHSC & DCN Records Library (160,000 records)	1	368.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assistant Health Records Manager / Supervisors	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RHSC / DCN Office 17 Person	3	3.0	Open Plan Office	M0132-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Receipt Bay	1	3.0	Circulation Areas	cds	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Dry Goods	1	9.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Kitchen Equipment	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Refuse	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposables / Detergent	1	6.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Veg Store	1	6.0	CDS	cds	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Raw Meat	1	7.0	CDS	cds	8	5	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Dairy Store	1	9.0	CDS	cds	5	2	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Freezer	2	5.0	CDS	cds	-18	-20	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Preparation/Cooking Area	1	110.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Diet Prep Area	1	12.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
S1	Kitchen	Diet Store	1	5.0	CDS	W1585-??	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pan Wash	1	12.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Temperature Controlled Sandwich Prep	1	18.0	CDS	cds	12	10	None	None	Yes	Ceiling Cassette - Chilled Water	General Supply and Extract	4	4	Balanced	G4	43	41		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Weighing	1	7.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Clean Trolleys Park	1	21.5	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	1	2	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bakery Preparation	1	13.0	CDS	cds	12	10	None	None	Yes	Ceiling Cassette - Chilled Water	General Supply and Extract	4	4	Balanced	G4	43	41		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Returned Trolleys	1	25.0	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	1	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Wash Area	1	6.0	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	2	3	Negative	None	43	41		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Office 5 person	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Female Staff Changing inc Shower	1	13.0	Changing Facilities	V0554	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing inc Shower	1	10.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
S2	e-Health Infrastructure	Core Server Room	1	40.0	IT equipment (comms server)	Engineering	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Domestic Service Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sanitary Bins Store	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S3	Domestic Services	Bulk Equipment Store	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Supplies Store	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Pool (Clean)	1	32.0	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Pool (Dirty)	1	32.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage/Holding Area	1	100.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Porters Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
S4	Materials Management	Office	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Mailroom	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Female Staff Changing , Shower, WC & Lockers	1	240.0	Changing Facilities	V0554	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S5	Central Staff Changing	Male Staff Changing , Shower, WC & Lockers	1	100.0	Changing Facilities	V0554-01	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bay for Token Machine	1	5.0	Circulation Equipment Storage Bays	P0808	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Workshop (NPD)	1	45.0	Small Workshop	K0421	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Workshop (NHSL)	1	30.0	Small Workshop	K0421	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	30.0	Storage Area Equipment	W1585	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S6	Estates	Staff Room (4th floor)	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		BMS Room	1	10.0	IT equipment (comms server)	query	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff Change	1	15.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower	2	2.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Restaurant	1	157.0	Eating/Drinking	D0608-02	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Storage/Dishwashing	1	25.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S7	Restaurant	Male WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S8	Sterile Support Store	Trolley Holding Bay	1	23	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RFFS Changing / Support	1	29	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bed Bay	1	3.4	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant	1	3	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S9	Helipad Support	RFFS Medical Equipment Store	1	6	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
T1	Plant	IT Node Rooms	25	9.0	IT equipment (comms server)	query	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Main Lab	1	120.0	Laboratory	L1804	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Utility Area Wash Up	1	12.0	Laboratory	L1804	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Temp Controlled Store	1	15.2	Laboratory	L1804	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
U1	Labs	DSR	1	8.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Record Store	1	15.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	Remote Sensor Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	90	Presence detection	Floor 0m	See Guidance Notes	n/a
		Meeting/Staff	1	16.0	Meeting Room	H1313-03	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Male Change	2	6.0	Changing Facilities	V0726	28	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office	1	29.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	Remote Sensor Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

RHSC and DCN (Preferred Bidder)
Little France
Edinburgh
Scotland United Kingdom

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
Transmittal	BMCE-TRANSMIT-001192	WWHIT-TRANSMIT-000077

RE: Environmental Matrix

From	BMEdinburgh DocControl - Brookfield Multiplex Construction Europe
To (4)	Maureen Brown - Mott MacDonald Ltd (Head Office UK) Graeme Greer - Mott MacDonald Ltd (Head Office UK) Mr Kamil Kolodziejczyk - Mott MacDonald Ltd (Head Office UK) NHSL RHSC + DCN - NHS Lothian
Cc	Liane Edwards-Scott - Brookfield Multiplex Construction Europe
Sent	Friday, 31 October 2014
Reason	Issued for Information

MESSAGE

Dear All,

Please see attached environmental Matrix for review.

Best Regards

Anne

From: D Miller
Sent: 30/10/2014 3:52:23 PM GMT (GMT +00:00)
To: BMEdinburgh DocControl, Liane Edwards-Scott
Mail Number: WWHIT-TRANSMIT-000077
Subject: Environmental Matrix

From: Greer, Graeme [graeme.greer@[redacted] on behalf of Greer, Graeme
Sent: 11 November 2014 15:46
To: Stacey McClatchie [Stacey.McClatchie@[redacted] Ken Hall [ken.hall@[redacted] McKechnie, Stewart [Stewart.McKechnie@[redacted] Brendan.Rooney@[redacted] [Brendan.Rooney@[redacted] Brown, Maureen [Maureen.Brown@[redacted] Macrae, Colin [Colin.Macrae@[redacted] Halcrow, Fiona (Fiona.Halcrow@[redacted] [fiona.halcrow@[redacted] Stillie, David [David.Stillie@[redacted] Davidson, Stuart X (Stuart.X.Davidson@[redacted] [Stuart.X.Davidson@[redacted]
Subject: RE: Environmental Matrix NHSL Comments Feedback
Attachments: 111114 RDD Part 4 Enviro Matrix comments.docx

Dear all,

Notes attached from todays meeting,

Kind Regards
Graeme

-----Original Appointment-----
From: Stacey McClatchie [mailto:Stacey.McClatchie@[redacted]
Sent: 07 November 2014 14:17
To: Stacey McClatchie; Ken Hall; 'McKechnie, Stewart'; 'brendan.rooney@[redacted] Greer, Graeme; Brown, Maureen; Macrae, Colin; Halcrow, Fiona (Fiona.Halcrow@[redacted] Stillie, David; Davidson, Stuart X (Stuart.X.Davidson@[redacted]
Subject: Environmental Matrix NHSL Comments Feedback
When: 11 November 2014 14:00-16:00 (UTC) Dublin, Edinburgh, Lisbon, London.
Where: MacKinlay Room

When: 11 November 2014 14:00-16:00 (GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London.

Where: MacKinlay Room

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*~*

Mo,

Can you please forward to the necessary attendees from the NHS.

Thanks,

Stacey

Please consider the environment before printing this e-mail.

This email and any attachments are confidential and may be legally privileged (in which case neither is waived or lost by mistaken delivery). The contents of this email, including any attachments, are intended

solely for the use of the individual or entity to whom they are addressed. Any unauthorised use is expressly prohibited. We do not waive any privilege, confidentiality or copyright associated with it. Brookfield collects personal information to provide and market our services (see our privacy policy at http://www.au.brookfield.com for more information about use, disclosure and access). Brookfield's liability in connection with transmitting, unauthorised access to, or viruses in this message and its attachments, is limited to re-supplying this message and its attachments

Message protected by MailControl: e-mail anti-virus, anti-spam and content filtering.
http://www.mailcontrol.com

“Project Co shall update the Environmental Matrix to reflect the following Board comments

- Update the Environmental Matrix shall by updated by Project Co to reflect all the rooms and room types in the proposed Facility, this should be based on an updated Schedule of Accommodation that has been commented on separately by the Board. This also needs to reflect the names and room numbers in the GSU table.
- Include the requirements contained in the Clinical Output Specification including but not limited to the requirement that theatre temperatures are to be able to be raised to 31°C for certain operations
- Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of the following room types to reduce the temperature control from 28°C to 25°C
    - Treatment Rooms;
    - Consulting Rooms;
    - Laboratory;
    - Physiotherapy Studio;
    - Recovery.

  These room shall not exceed the maximum acceptable level of 25°C for more than 50 hours per annum
- Detailed proposal awaited on bedroom ventilation to achieve balanced/negative pressure relative to corridor.
- Colour rendering all stated as 80 where certain areas should be 90
- There also need to have a consistent approach e.g. guidance notes and ED body view room stated as 28 -8, bereavement suite body view room stated as 25 -8.
- Further discussion is required on the minimum temperate requirement for the Body View Room.

RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

1.0 Introduction

We have been asked to review the air movement within the single bedrooms under various ventilation scenarios.

1. Windows and trickle vents closed, no natural ventilation, mechanical ventilation only provided to the bedrooms.

2. Windows and window trickle vents open, natural and mechanical ventilation provided to the bedrooms.

3. Some of the windows and window trickle vents open and some closed, mixture of natural and mechanical ventilation to the bedrooms.

2.0 Interpretation of SHTM 03 Ventilation for Healthcare Premises

A single room within Appendix 1 : Table A1 : Recommended air-change rates is given under the ventilation column as supply/extract/natural, with 6 ac/hr and room pressure as zero or negative. The single room WC from the table is 3 ac/hr and room pressure is negative.

Current bedroom ventilation design is supply into the room at 4 ac/hr with opening windows and trickle vents to provide natural ventilation, this gives a balanced room pressure as long as the window is open.

The single bedroom WC extract has been enhanced to 10 ac/hr and the room pressure is negative.

3.0 Ventilation Scenario's

Scenario 1

1. Bedroom is positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows to the corridor via doors.
4. Corridor is provided with extract ventilation, pressure is balanced.

Scenario 2

1. Bedroom has balanced pressure.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows and trickle vents.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms and other rooms.

Scenario 3

1. Bedrooms with open windows have balanced pressure and bedrooms with closed windows are positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows or through the bedroom doors if the windows are closed.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms.

Refer to Appendix 1 for the Air Flow and Resultant Room Pressure drawings.

The original reference design as detailed within the Environmental Matrix is as follows:-

Bedroom - Supply 4Ac/Hr & Room Pressure Positive.
WC – Extract 10Ac/Hr & Room Pressure Negative.

4.0 Conclusion

Reviewing the three air flow and resultant room pressure scenario drawings G1547/(57)SK01-SK03:

When the windows and trickle vents are utilised for natural ventilation the bedroom pressure is balanced and the corridor becomes negative.

If some of the windows and trickle vents are closed, these bedrooms will become positive and the bedrooms with open windows again will be balanced, where the corridor is negative.

Should all the bedroom windows and trickle vents be closed, the bedroom pressure is positive and the corridor shall be balanced as the corridor extract rate will match the supply air coming from the bedrooms via their doors.

The window trickle vents should be left open when the rooms are occupied, this will ensure that the bedroom pressure is balanced.

By utilising the proposed mixed mode ventilation proposal for the bedrooms, ie. opening windows and trickle vents with the supply air reduced from 6Ac/Hr to 4Ac/Hr direct into the bedroom, this will provide the most energy efficient solution for the space.

We believe that we have complied with the reference design concept as detailed within the original Environmental Matrix.

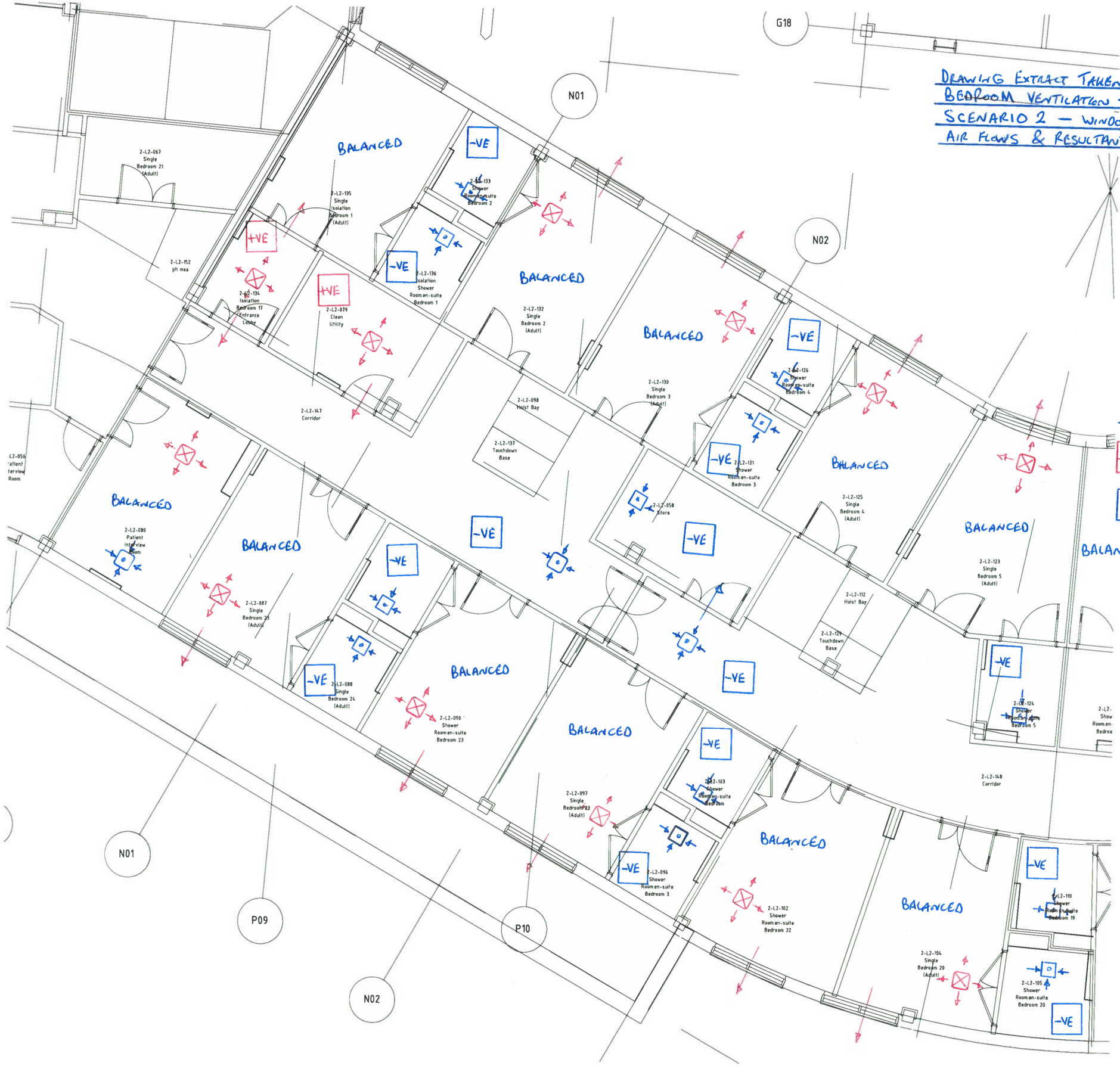
DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION - MECHANICAL ONLY
SCENARIO 1 - WINDOWS CLOSED
AIR FLOWS & RESULTANT ROOM PRESSURES

LEGEND
- SUPPLY GRILLE
- EXTRACT GRILLE
- AIR FLOW.
+VE - POSITIVE ROOM PRESSURE
-VE - NEGATIVE ROOM PRESSURE
BALANCED - BALANCED ROOM PRESSURE

G18
N01
N02
P09
P10
BALANCED
+VE
-VE
2-L2-067 Single Bedroom 21 (Adult)
2-L2-152 ph mea
2-L2-135 Single Isolation Bedroom 1 (Adult)
2-L2-133 Shower Room en-suite Bedroom 2
2-L2-136 Isolation Shower Room en-suite Bedroom 1
2-L2-134 Isolation Bedroom 17 Entrance Lobby
2-L2-079 Clean Utility
2-L2-147 Corridor
2-L2-132 Single Bedroom 2 (Adult)
2-L2-098 Hoist Bay
2-L2-137 Touchdown Base
2-L2-130 Single Bedroom 3 (Adult)
2-L2-126 Shower Room en-suite Bedroom 4
2-L2-131 Shower Room en-suite Bedroom 3
2-L2-125 Single Bedroom 4 (Adult)
2-L2-123 Single Bedroom 5 (Adult)
2-L2-112 Hoist Bay
2-L2-129 Touchdown Base
2-L2-124 Shower Room en-suite Bedroom 5
2-L2-148 Corridor
2-L2-056 Patient Interview Room
2-L2-088 Patient Interview Room
2-L2-087 Single Bedroom 25 (Adult)
2-L2-088 Single Bedroom 24 (Adult)
2-L2-090 Shower Room en-suite Bedroom 23
2-L2-097 Single Bedroom 23 (Adult)
2-L2-103 Shower Room en-suite Bedroom
2-L2-096 Shower Room en-suite Bedroom 3
2-L2-102 Shower Room en-suite Bedroom 22
2-L2-104 Single Bedroom 20 (Adult)
2-L2-110 Shower Room en-suite Bedroom 19
2-L2-105 Shower Room en-suite Bedroom 20

G1547(57)SK01
RHSC & DCN

DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 2 – WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES

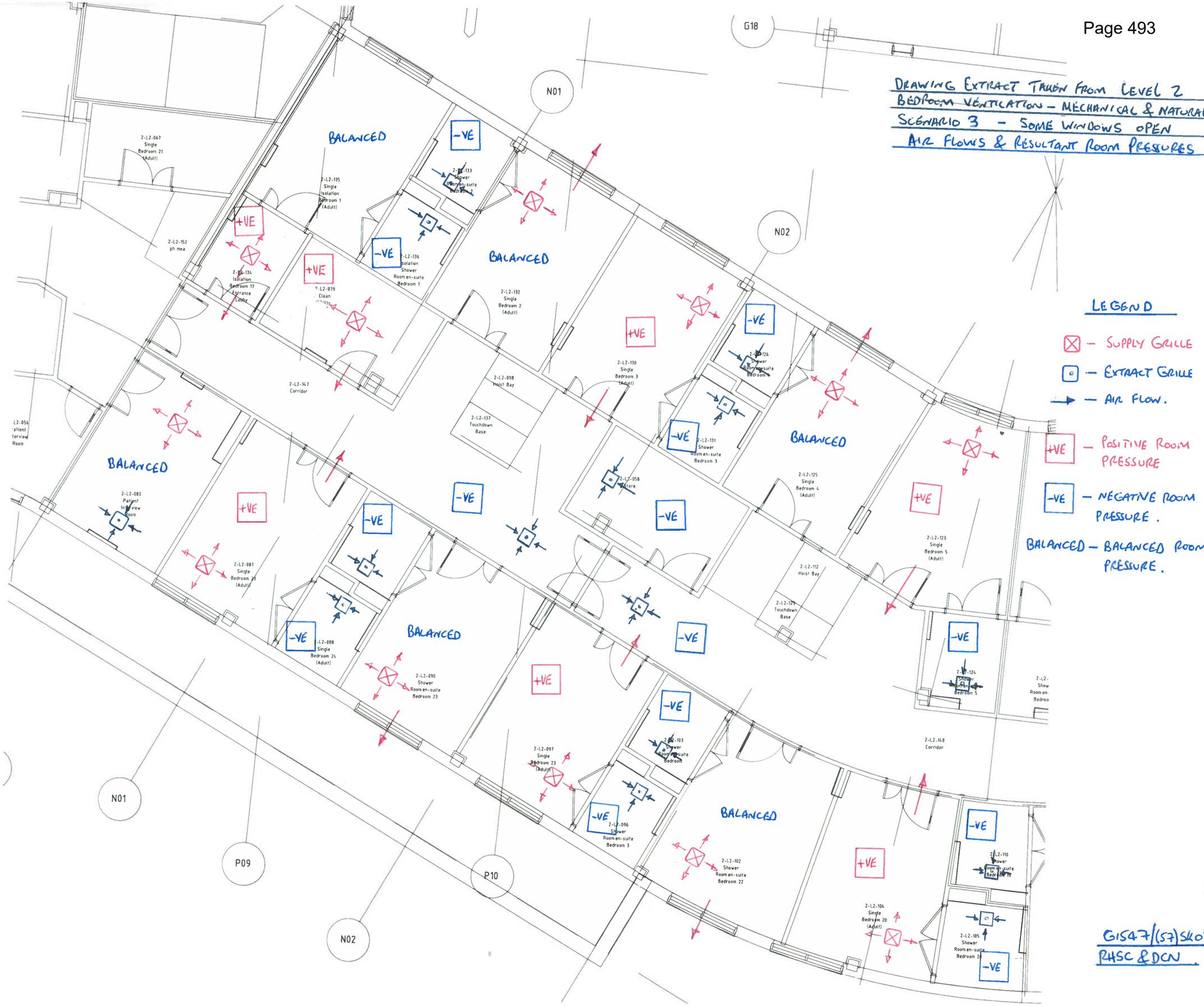


LEGEND.

- ⊠ – SUPPLY GRILLE
- ⊡ – EXTRACT GRILLE
- → – AIR FLOW
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE
- BALANCED – BALANCED ROOM PRESSURE

G1547/(57)SK02
RHSC & DCN.

DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 3 – SOME WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES



LEGEND

- ⊠ – SUPPLY GRILLE
- ⊡ – EXTRACT GRILLE
- → – AIR FLOW.
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE.
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G1547/(57)SK03
RHSC & DCN.

RHSC and DCN (Preferred Bidder)
Little France
Edinburgh
Scotland United Kingdom

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
General Correspondence	BMCE-GC-001652	NHSL-RFI-000018

Re: HAI Scribe Stage 3 Construction

From	Mr Ken Hall - Brookfield Multiplex Construction Europe
To	Ms Janice Mackenzie - NHS Lothian
Cc (7)	Liane Edwards-Scott - Brookfield Multiplex Construction Europe
	Mr Alan Keeley - Brookfield Multiplex Construction Europe
	Maureen Brown - Mott MacDonald Ltd (Head Office UK)
	Mr David Stillie - Mott MacDonald Ltd (Head Office UK)
	Sorrel Cosens - NHS Lothian
	Fiona Halcrow - NHS Lothian
	NHSL RHSC + DCN - NHS Lothian
Sent	Tuesday, 13 January 2015

MESSAGE

Janice

Copy of bedroom ventilation overview paper we distributed at the meeting this morning.

thanks

Ken

From: J Mackenzie
Sent: 13/01/2015 11:55:46 AM GMT (GMT +00:00)
To: Liane Edwards-Scott, Alan Keeley
Cc: Ken Hall, Maureen Brown, David Stillie, Sorrel Cosens, Fiona Halcrow, NHSL RHSC + DCN
Mail Number: NHSL-RFI-000019
Subject: Re: HAI Scribe Stage 3 Construction

MY apologies, I did not attach the document

Janice MacKenzie

Clinical Director

A43133429

RHSC + DCN - Little France

56 Canaan Lane
Edinburgh
EH10 4SG
T: [redacted]
M: [redacted]

From: J Mackenzie
Sent: 13/01/2015 11:31:57 AM GMT (GMT +00:00)
To: Liane Edwards-Scott, Alan Keeley
Cc: Ken Hall, Maureen Brown, David Stillie, Sorrel Cosens, Fiona Halcrow, NHSL RHSC + DCN
Mail Number: NHSL-RFI-000018
Subject: HAI Scribe Stage 3 Construction

Dear Both

We had scheduled a meeting today to complete HAI Scribe Stage 3 but unfortunately we could not proceed with the meeting as key individuals were not present. We did however manage to discuss the ventilation query and we will now review the information we were given at the meeting, which Ken is going to send electronically.

As you will be aware this stage of HAI Scribe has to be completed prior to any construction starting on site. HFS have recently reviewed and changed HAI Scribe documentation and it is the new documentation that we are using.

When we completed Stage 2 at the workshop on 19th November we agreed that NHSL and their TAs would review the Stage 3 template and complete it in draft format which we would then review with IHSL at today's workshop. In order to progress this those of us who were at today's workshop agreed that in the first instance we would send you the completed draft and request that you review this and amend the document as appropriate. It is important that the as well as checking the yes/no/n/a responses that additional information is provided in the comments boxes to justify the response.

Given the need to have this completed prior to construction commencing and the need for us to review the completed documentation internally before we can sign off we do need to turn this around quickly. It may also be that we will require to meet to review the documentation but will advice of this once we have the completed documentation back from you.

Janice

Janice MacKenzie
Clinical Director
RHSC + DCN - Little France

56 Canaan Lane
Edinburgh
EH10 4SG
T: [redacted]
M: [redacted]

RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

1.0 Introduction

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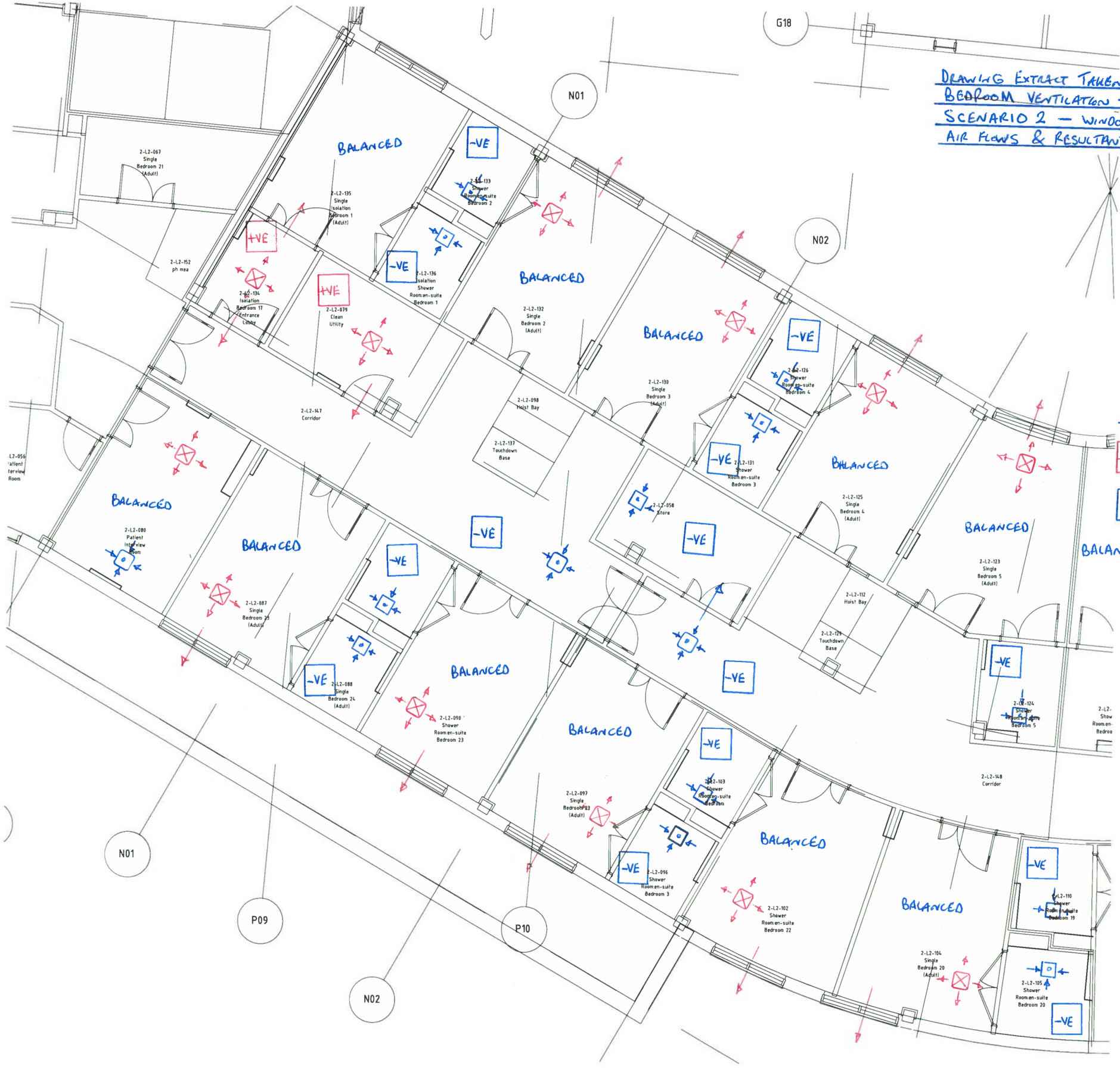
~~BEDROOM VENTILATION~~ - MECHANICAL ONLY
SCENARIO 1 - WINDOWS CLOSED
AIR FLOWS & RESULTANT ROOM PRESSURES

LEGEND
- SUPPLY GRILLE
- EXTRACT GRILLE
- AIR FLOW.
+VE - POSITIVE ROOM PRESSURE
-VE - NEGATIVE ROOM PRESSURE
BALANCED - BALANCED ROOM PRESSURE

G1547(57)SK01
RHSC & DCN

A43133429

DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 2 – WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES



LEGEND.

- ⊠ – SUPPLY GRILLE
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- -VE – NEGATIVE ROOM PRESSURE
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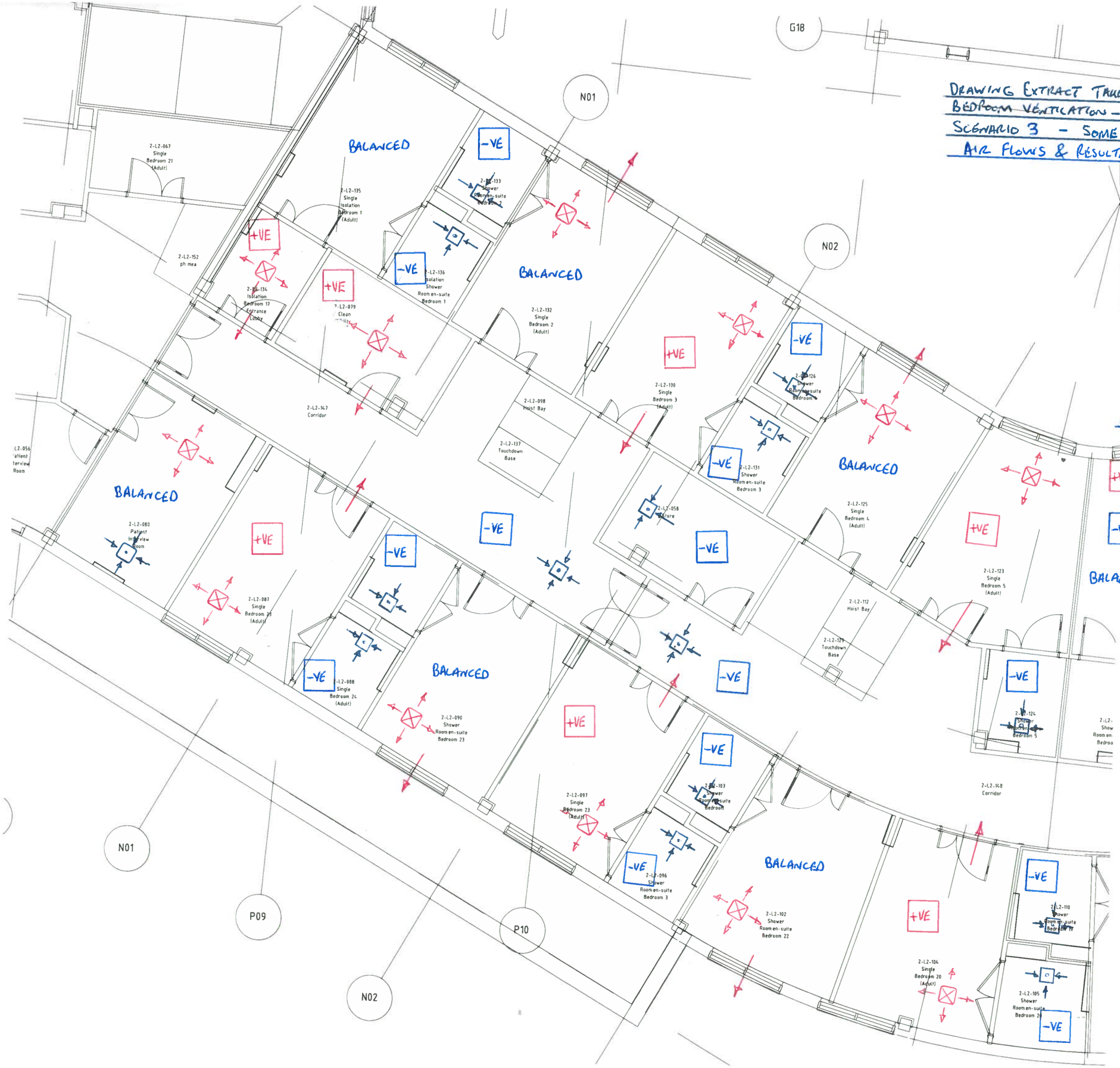
G1547/(57)SK02
RHSC & DCN.

DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 3 – SOME WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES



LEGEND

- ⊠ – SUPPLY GRILLE
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G1547/(57)SK03
RHSC & DCN.

RHSC and DCN (Preferred Bidder)
Little France
Edinburgh
Scotland United Kingdom

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
Request For Information	BMCE-RFI-000077	BMCE-RFI-000077

Bedroom Ventilation: HAI Scribe Confirmation

From	Mr Ken Hall - Brookfield Multiplex Construction Europe
To (2)	Maureen Brown - Mott MacDonald Ltd (Head Office UK) Ms Janice Mackenzie - NHS Lothian
Cc (3)	Colin MacRae - Mott MacDonald Ltd (Head Office UK) Mr David Stillie - Mott MacDonald Ltd (Head Office UK) Mr Stewart McKechnie - Wallace Whittle
Sent	Monday, 19 January 2015
Respond by	**27/01/2015**

MESSAGE

As per meeting of Tuesday 13.01.15 and our request for clarity on negative / positive pressure regime within the bedrooms, we attach the sketches distributed at the meeting and seek confirmation /acceptance from the NHS review with infection control.

Thanks

Ken

REMINDER: Further to your Request For Information (RFI) and this subsequent Response to RFI (RTRFI), please ensure you now close out the original RFI. This is done by: 1. open the thread view and select the original RFI 2. once the original RFI appear on the screen, from the option at the top left of the screen, selecting the option to 'close out' Should you require additional information prior to closing out your RFI, you may raise further/new mail. In doing so, please ensure that the original RFI reference number is mentioned in the subject line, for ease of reference later.

From: Maureen Brown - Mott MacDonald Ltd (Head Office UK) [redacted] on behalf of Maureen Brown - Mott MacDonald Ltd (Head Office UK)
Sent: 29 January 2015 13:28
To: Mr Ken Hall - Brookfield Multiplex Construction Europe; Ms Janice Mackenzie - NHS Lothian
Cc: Graeme Greer - Mott MacDonald Ltd (Head Office UK); Colin MacRae - Mott MacDonald Ltd (Head Office UK); Mr David Stillie - Mott MacDonald Ltd (Head Office UK); Fiona Halcrow - NHS Lothian; Mr Stewart McKechnie - Wallace Whittle
Subject: Re: Bedroom Ventilation: HAI Scribe Confirmation

To: Mr Ken Hall - Brookfield Multiplex Construction Europe[268519108@aconex]; Ms Janice Mackenzie - NHS Lothian[268617545@aconex]
Cc: Graeme Greer - Mott MacDonald Ltd (Head Office UK)[268616795@aconex]; Colin MacRae - Mott MacDonald Ltd (Head Office UK)[268617910@aconex]; Mr David Stillie - Mott MacDonald Ltd (Head Office UK)[268617571@aconex]; Fiona Halcrow - NHS Lothian[268617541@aconex]; Mr Stewart McKechnie - Wallace Whittle[268501423@aconex]
From: Maureen Brown - Mott MacDonald Ltd (Head Office UK)[268616748@aconex]
Sent: Thur 1/29/2015 1:28:11 PM (UTC)
Subject: Re: Bedroom Ventilation: HAI Scribe Confirmation

Hi Ken,

Following your recent RFI, the Board respond as follows:

- The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.

- The design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice.

- The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor.

- Isolation room ventilation shall comply with SHPN 04 Supplement 1.

Kind regards,

Mo

From: K Hall
Sent: 19/01/2015 9:54:01 AM GMT (GMT +00:00)
To: Maureen Brown, Janice Mackenzie
Cc: Colin MacRae, David Stillie, Stewart McKechnie
Mail Number: BMCE-RFI-000077
Subject: Bedroom Ventilation: HAI Scribe Confirmation

As per meeting of Tuesday 13.01.15 and our request for clarity on negative / positive pressure regime within the bedrooms, we attach the sketches distributed at the meeting and seek confirmation /acceptance from the NHS review with infection control.

Thanks

Ken A43133429

RHSC and DCN
Little France
Edinburgh
Scotland United Kingdom

NHS Lothian
56 Canaan Lane
Edinburgh
EH10 4SG United Kingdom
Ph. +44 131 5365061

MAIL TYPE	MAIL NUMBER	REFERENCE NUMBER
General Correspondence	NHSL-GC-002953	MPX-GC-026334

Re: 12.04.18 4 Bed Workshop Summary

From	Mr Ronnie Henderson - NHS Lothian
To (4)	Mr Kamil Kolodziejczyk - Mott MacDonald Ltd (Head Office UK)
	Mr Douglas Anderson - Mott MacDonald Ltd (Head Office UK)
	Mr Ken Hall - Multiplex Construction Europe
	Mr Stewart McKechnie - Wallace Whittle
Cc (2)	Mr Colin Grindlay - Multiplex Construction Europe
	Mr Andrew McColl - Multiplex Construction Europe
Sent	Wednesday, 18 April 2018

MESSAGE

Hi Ken,

I note the attched schedule rev 05 still refers to Air Change rates between 2.7 & 3.5, we are seeking design for 4 Air Changes to all 14 rooms. Can you confirm that this is the brief to WW

Regards

Ronnie

From: K Hall
Sent: 17/04/2018 2:52:00 PM BST (GMT +01:00)
To: Douglas Anderson, Kamil Kolodziejczyk, Ronnie Henderson, Stewart McKechnie
Cc: Colin Grindlay, Andrew McColl
Mail Number: MPX-MM-000503
Subject: 12.04.18 4 Bed Workshop Summary

Confirmation of Key Points discussed.

Attendees: as attached.
Marked Up Drawings Tabled: as attached.
Agenda: as below - (MPX-GC-026334)
Date and Time: 12.04.18 @ 13.00Hrs

1.0 SM noted concerns on agreement from the previous workshop No1 that the objective of workshop No2 was to obtain agreement in principle on the draft drawings being tabled to allow progress to continue on 4 bed design. This was due to NHSL held up at another meeting, and no delegated authority at the workshop.

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Action. Concerns resolved as Ronnie Henderson joined the workshop at 13.30.

A. 4 BED Agenda Item

2.0 14 Rooms in question tabled based on the previous Rev 05 schedule. Rooms cross referenced drawings against the schedule. See attached schedule and drawings over viewed.

3.0 Room "M" type. NHSL noted environmental matrix notes supply and extract. Drawing tabled and site inspection has no changes to the extract.

Action: TUV SUD to confirm design intent to comply with the environmental matrix.

4.0 Area I + J. NHSL requested actual air change rates be confirmed given the increase in one extract system rather than perhaps introducing it across the 3 systems in the locale.

Action: Increase in air change rate(s) to be identified due to noise concerns.

5.0 Physical sizes of all increased duct sizes to be verified at site to confirm any spatial constraints.

Post meeting note: Surveys confirmed to proceed 18.04.18. Findings to be shared with NHSL.

6.0 NHSL confirmed agreement in principal to the strategy tabled, and to proceed to the next stage of site survey based on drawings tabled. Thereafter RDD pack to be submitted for speedy approval.

7.0 Spare capacity. TUV SUD tabled the initial draft assessment:

Supply: No impact as being maintained at 4ACH as per the Environmental Matrix.

Extract: AHU-04-06: extract up by 23%.
Extract: AHU-04-07: extract up by 10%.
Extract: AHU-04-08: extract up by 15%.
Extract: AHU-02-23: extract up by 36%.
Extract: AHU-04-04: extract up by 6%.

TUV SUD noted dialogue with Supplier of AHU being undertaken.

Action: Spare capacity impact analysis document to be issued after site checks carried out on spatial review to identify impact on current spare capacity to allow NHSL to consider if the design can proceed on this basis.

B. Spare Capacity Document

NHSL noted receipt of spare capacity document. Comments on the document to be tabled at next workshop.

8.0 NHSL noted the document issued per department had the comments removed that were in the original spare capacity document issued. Specifically for example the fans in relation to 10% spare capacity comment. NHSL reiterated clarity if the fans had 25% spare capacity, this was confirmed by TUV SUD.

Action: TUV SUD to confirm statement made at the meeting, ventilation 25% design spare capacity on the fans.

C. Schneider Agreement

9.0 TUV SUD statement distributed at the meeting,

Action: NHSL to feedback at next workshop.

D AOB

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10.0 NHSL requested Thursday meetings continue, perhaps alternated mechanical and electrical depending on topics to be resolved.

11.0 TUV SUD queried if generator load profile document had been returned by NHSL / MPX.

MPX confirmed after meeting TUV SUD were issued the document on 10.04.18.

Action: TUV SUD to confirm feedback on NHSL comments received.

12.0 NHSL noted query regarding earth cable and fire rated cabling. To be discussed and agreed at next workshop. NHSL requested formal confirmation to the points raised within original calculations feedback.

Action: TUV SUD to respond to Aconex MPX-GC-026161 dated 29.03.18.

Next meeting: Thursday 19.04.18, agenda to be issued prior to meeting.

From: K Hall
Sent: 11/04/2018 3:36:34 PM BST (GMT +01:00)
To: Douglas Anderson, Ronnie Henderson, Stewart McKechnie
Cc: Colin Grindlay, Andrew McColl
Mail Number: MPX-GC-026334
Subject: 12.04.18 Thursday M+E Workshop 13.00Hrs

Confirmation of agenda items to discuss tomorrow, 13.00Hrs, MPX Conference Room.

1.0 Tabling of 4 Bed Design - 14 Rooms

2.0 Feedback on Spare Capacity Review - Specific Departments

- Clinical Management Suite
- Family Hotel
- Shelled rooms
- Out patients
- Child life and Health
- Clinical Research Facility
- Multidisciplinary offices in wards
- Sphere
- Class rooms
- Health records

3.0 Update on Schneider Agreement - Electrical Distribution 90/70 degree debate v's BS 7671 Derating

Multi Bed – Ventilation Amendment Proposal to Achieve Room Balance
WW-SZ-XX-DC-XXX-010

Proposed Solution to Rooms Identified as Being of Concern

Room Reference Location	Ventilation Layout Drawing Number	Room Number	Room Description	Proposed Solution	Severity of Works			Ductwork Fabricated
					Local	Medium	Major	Yes/No
A	WW-Z4-00-PL-524-001K	G-A2-054	Multi Bed (4) Room Occupancy 10 People	Retain the supply ventilation at 4ac/hr and the en-suite ventilation at 10ac/hr. Ducts servicing en-suite & toilets to be retained at their original sizes. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general extract ductwork main. Supply & Extract Duty 174l/s. (Equates to 17 people).		✓		Yes
B	WW-Z4-00-PL-524-001K	G-A2-046	Multi Bed (4) Room Occupancy 10 People	Retain the supply ventilation at 4ac/hr and the en-suite ventilation at 10ac/hr. Ducts servicing en-suite & toilets to be retained at their original sizes. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general extract ductwork main. Supply & Extract Duty 174l/s. (Equates to 17 people).		✓		Yes
C	WW-Z4-00-PL-524-002L	G-A2-028	Multi Bed (4) Room Occupancy 10 People	Retain the supply ventilation at 4ac/hr and the en-suite ventilation at 10ac/hr. Ducts servicing en-suite & toilets to be retained at their original sizes. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general extract ductwork main. The main itself will be increased in size over a defined length. Supply & Extract Duty 174l/s. (Equates to 17 people).		✓		Yes
D	WW-Z4-01-PL-524-001J	1-B1-063	Multi Bed (4) Room Occupancy 15 People	Retain the supply ventilation at 4ac/hr. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. The existing general extract ductwork currently serving the room has been increased in size and another grille added to it to serve the room. This will achieve a balanced room pressure. New branch duct to be connected locally into the existing general extract ductwork main. Supply & Extract Duty 312l/s. (Equates to 31 people).		✓		Yes
E	WW-Z4-01-PL-524-001J	1-B1-031	Multi Bed (4) Room Occupancy 15 People	Retain the supply ventilation at 4ac/hr. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. The existing general extract ductwork currently serving the room has been increased in size and another grille added to it to serve the room. This will achieve a balanced room pressure. New branch duct to be connected locally into the existing general extract ductwork main. Supply & Extract Duty 332l/s. (Equates to 33 people).		✓		Yes
F	WW-Z4-01-PL-524-001J	1-B1-009	Multi Bed (4) Room Occupancy 15 People	Retain the supply ventilation at 4ac/hr. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. The existing general extract ductwork currently serving the room has been increased in size and another grille added to it to serve the room. This will achieve a balanced room pressure. New branch duct to be connected locally into the existing general extract ductwork main. The main itself will be increased in size over a defined length. Supply & Extract Duty 348l/s. (Equates to 34 people).		✓		Yes

Issue	Date	By	Checked
1	08.02.17	BR	SMcK
2	14.02.17	BR	SMcK
3	22.02.17	BR	SMcK
4	11.05.17	BR	SMcK
5	23.05.17	BR	SMcK
6	14.06.18	BR	SMcK
7	06.04.18	BR	SMcK

Multi Bed – Ventilation Amendment Proposal to Achieve Room Balance
WW-SZ-XX-DC-XXX-010

Room Reference Location	Ventilation Layout Drawing Number	Room Number	Room Description	Proposed Solution	Severity of Works			Ductwork Fabricated
					Local	Medium	Major	Yes/No
G	WW-Z3-03-PL-524-001G	3-C1.3-011	Multi Bed (4) Room Occupancy 14 People	Retain the supply ventilation at 4ac/hr and the en-suite and shared wet room ventilation at 10ac/hr. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general extract ductwork main. The main itself will be increased in size over a defined length. Supply & Extract Duty 176l/s. (Equates to 17 people).		✓		Yes
H	WW-Z3-03-PL-524-001G	3-C1.3-013	Multi Bed (4) Room Occupancy 14 People	Retain the supply ventilation at 4ac/hr and the en-suite and the shared wet room ventilation at 10ac/hr. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general extract ductwork main. The main itself will be increased in size over a defined length. Supply & Extract Duty 174l/s. (Equates to 17 people).		✓		Yes
I	WW-Z4-03-PL-524-001G	3-C1.2-026	Multi Bed (4) Room Occupancy 14 People	Retain the supply ventilation at 4ac/hr. Bay 1 toilets, ventilation is 10ac/hr and shared en-suite ventilation is 17ac/hr. Introduce a new general extract and dirty extract ductwork and grilles into the respective rooms to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general and dirty extract ductwork mains. Door grilles will be provided within the shared en-suite, shared en-suite ventilation will be 17ac/hr. Supply & Extract Duty 176l/s. (Equates to 17 people).		✓		Yes
J	WW-Z4-03-PL-524-001G	3-C1.2-023	Multi Bed (4) Room Occupancy 14 People	Retain the supply ventilation at 4ac/hr. Bay 1 toilets, ventilation is 10ac/rd and shared en-suite ventilation is 17ac/hr. Introduce a new general extract and dirty extract ductwork and grilles into the respective rooms to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general and dirty extract ductwork mains. Door grilles will be provided within the shared en-suite, shared en-suite ventilation will be 17ac/hr. Supply & Extract Duty 176l/s. (Equates to 17 people).		✓		Yes
K	WW-Z4-03-PL-524-002G	3-C1.1-018	Multi Bed (4) Room Occupancy 15 People	Retain the supply ventilation at 4ac/hr and the en-suite ventilation at 17ac/hr. Ducts serving the en-suites and toilets to be increased in size. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch duct to be connected locally into the existing general extract ductwork main. Door grilles will be provided within the en-suite and toilets. Supply & Extract Duty 184l/s. (Equates to 18 people).		✓		Yes
L	WW-Z4-03-PL-524-002G	3-C1.1-046	Multi Bed (4) Room Occupancy 15 People	Retain the supply ventilation at 4ac/hr and the en-suite ventilation at 17ac/hr. Ducts serving the en-suites and toilets to be increased in size. Introduce new general extract ductwork and grille into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch duct to be connected locally into the existing general extract ductwork main. Door grilles will be provided within the en-suite and toilets. Supply & Extract Duty 186l/s. (Equates to 18 people).		✓		Yes

Issue	Date	By	Checked
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3	22.02.17	BR	SMcK
4	11.05.17	BR	SMcK
5	23.05.17	BR	SMcK
6	14.06.18	BR	SMcK
7	06.06.18	BR	SMcK

Multi Bed – Ventilation Amendment Proposal to Achieve Room Balance
WW-SZ-XX-DC-XXX-010

Room Reference Location	Ventilation Layout Drawing Number	Room Number	Room Description	Proposed Solution	Severity of Works			Ductwork Fabricated
					Local	Medium	Major	Yes/No
M	WW-Z4-01-PL-524-001J	1-B1-065	Multi Cot (3) Room Occupancy 9 People	Retain the supply ventilation at 4ac/hr. Introduce new general extract ductwork and grilles into the room to provide 4ac/hr. Branch duct to be connected locally into the existing general extract ductwork. The existing general extract ductwork currently serving this area has been increased in size. This will achieve a balanced room pressure. Supply & Extract Duty 144l/s. (Equates to 14 people).		✓		Yes
N	WW-Z4-01-PL-524-002F	1-L1-100	Multi Bed (4)	No change to the existing room ventilation provision and ductwork design, room is currently positive to corridor.	N/A	N/A	N/A	N/A
O	WW-Z4-01-PL-524-002F	1-L1-097	Multi Bed (4)	No change to the existing room ventilation provision and ductwork design, room is currently positive to corridor.	N/A	N/A	N/A	N/A
P	WW-Z4-03-PL-524-001F	3-C1.8-027	Multi Bed (4)	No change to the existing room ventilation provision and ductwork design, room is currently positive to corridor.	N/A	N/A	N/A	N/A
Q	WW-Z4-03-PL-524-001F	3-C1.8-016	Multi Bed (4)	No change to the existing room ventilation provision and ductwork design, room is currently positive to corridor.	N/A	N/A	N/A	N/A
R	WW-Z3-03-PL-524-002G	3-C1.4-084	Multi Bed (4)	No change to the existing room ventilation provision and ductwork design, room is currently positive to corridor.	N/A	N/A	N/A	N/A
S	WW-Z3-03-PL-524-002G	3-C1.4-061	Multi Bed (6)	No change to the existing room ventilation provision and ductwork design, room is currently positive to corridor.	N/A	N/A	N/A	N/A
T	WW-Z4-03-PL-524-002G	3-D9-022	Multi Bed (3) Room Occupancy 11 People	Retain the supply ventilation at 4ac/hr and the en-suite ventilation at 10ac/hr. Introduce new general extract ductwork and grilles into the room to provide 4ac/hr overall. This will achieve a balanced room pressure. Branch ducts to be connected locally into the existing general extract ductwork mains. One of the mains itself will be increased in size over a defined length. Supply & Extract Duty 122l/s. (Equates to 12 people)		✓		Yes

Notes :-

1) Room occupancy is taken from the Clinical Output Based Specifications.
2) Bedroom ventilation is based on a fresh air rate allowance of 10l/s per person in line with SHTM 03-01.

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5	23.05.17	BR	SMcK
6	14.06.18	BR	SMcK
7	06.06.18	BR	SMcK

RDD	
Reviewable Design Data : Section 5 of Schedule Part 6	
	Bo[illegible]
Name	J. MACKENZIE
Date	26/7/18
Sign	[redacted]
Level	A
Comment:	

In accordance with the Levels as set out in Clause 4 Effect of Review and Schedule Part 8 (Review Procedure);

Level A : No Comment
Level B : Proceed subject to Amendment as noted
Level C : Subject to amendment as noted
Level D : Rejected

Brookfield MULTIPLEX | BM
Built to outperform.

Contractor Document Review
RHSC & DCN Edinburgh

A ☑ No Comment
B ☐ Noted subject to comments revise and resubmit within 7 business days
C ☐ Rejected - revise and resubmit within 7 business days

BM Checked by [redacted]
Date 27/7/18

Brookfield Multiplex review status does not absolve the consultant of its obligations with regard to contractor and conformity with the other Consultants and specialist Subcontractors design and the project Agreements, Employer's Requirements and the cost plan and for ensuring that there are no ambiguities, discrepancies, inconsistencies or omissions within the document or between it and any other design document.

	• provide tools to help you run and maintain your corporate EMS.
Council	The City of Edinburgh Council
Design Champion	Person in the Board who promotes the importance of achieving quality in capital developments and in ongoing initiatives to improve both the patient environment and the working lives of staff
Encode	HTM 07-02: EnCO2de – Making energy work in healthcare
Environmental Matrix	Means the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department / unit / space / area. The title is Reference Design Envisaged Solution – RHSC / DCN Environmental Matrix version third issue as set out in Appendix C of this Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with the Project Agreement);
Existing CAMHS	Child and Adolescent Mental Health Services currently at the Royal Edinburgh Hospital and Forteviot at the Existing RHSC
Existing DCN	Department of Clinical Neurosciences, Western General Hospital, Edinburgh
Existing RHSC	Royal Hospital for Sick Children, 9 Sciennes Road, Edinburgh
Family Council	Works collaboratively with partners, such as the Board, RHSC reprovision team and other forums, to ensure that the family perspective is integrated into current service provision, including redesign, for Children & Young People (C&YP) services
Firecode	Firecode consists of a number of Health Technical Memoranda (HTM) which consider policy, technical guidance and specialist aspects of fire precautions. Full list of HTM obtained from http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Firecode/DH_609
Good Practice Guidance for selecting materials	The edition of the publication entitled "Good practice in the selection of construction materials" (British Council for Offices (BCO): 2011) or any amended or updated version as at Financial Close.
Green Travel Plan	Means the NHS Lothian Sustainable Development Strategy Green Travel Plan.

p) Suitable means of shelter against adverse weather conditions at entrances, bus / transport waiting, and drop off locations and covered links provided, as appropriate;

q) Automatic vehicle access barriers, as appropriate; and

r) Fire hydrants.

All hardstanding, Site roads, paths, car parks, cycleways, and footpaths etc shall be designed and constructed so as to be free from standing water.

8 Mechanical & Electrical Engineering Requirements

Project Co shall provide the Works to comply with the Environmental Matrix.

Project Co shall in carrying out the Works comply with the following non-exhaustive list of mechanical & electrical requirements.

Project Co shall provide mechanical and electrical systems that help create a “state-of-the-art” building with innovative design. Project Co shall provide an engineering system that utilises the latest technology to create a high quality working environment that will provide a reassuring, enjoyable and convenient hospital for all patients, their families, visitors and staff. Project Co shall ensure the services network is efficient, effective, flexible and unobtrusive. Project Co shall ensure that the system is easy to maintain and shall maximise the opportunities for flexible adaptation and extension of the Facilities.

Electrical, mechanical and communication services shall be designed to be an integral and co-ordinated part of the design. Services shall be clearly identified at regular intervals and at all locations where maintenance access is required.

The location of engineering and utility services shall be co-ordinated with the structure and not constrain or conflict with Operational Functionality. Access to all services shall facilitate ease of maintenance which shall be safe and able to be effectively undertaken. There shall be provision for space to give flexibility for future re-planning and / or re-modelling of the Facilities.

The Board requires the buildings to be designed to achieve an optimum level of autonomy along with energy and utility utilisation. The energy centre shall be for the sole use of the Facilities. The services provided from the energy centre shall be provided from sources solely on the Site.

Project Co shall take cognisance of all the building services implications of the requirements described in the Board’s Construction Requirements of this Schedule Part 6 Section 3 Sub-Section D (Specific Clinical Requirements) and Sub-Section E (Specific Non-Clinical Requirements).

For the avoidance of doubt the hierarchy of standards and advice detailed in paragraph 2.5 shall apply to this paragraph 8.

8.1 Minimum Engineering Standards

In addition to the publications in paragraph 2 of this Sub-Section C Project Wide Requirement, Project Co shall ensure that the design, construction and selection of components for the mechanical and electrical works comply with, including but not limited to, the following design reference documents :

Project Co shall install Type 3 (in accordance with NHS Model Engineering Specification D08) thermostatic mixing valves at all HWS outlets to comply with SHTMs and SHGNs except where 60°C water is a particular requirement so that the mandatory requirements for the control of Legionella and other bacteria within the system are met.

Energy efficient hot water boilers shall be provided in all staff rest rooms and kitchen areas.

8.7.8 Mechanical Ventilation & Air Conditioning

The heating, ventilation and air conditioning systems shall be logically designed to operate efficiently incorporating heat recovery and providing local control where required. Project Co should ensure avoidance of simultaneous heating and cooling, either by the ventilation system itself or between the ventilation system and any other heating and cooling system,

The energy and power systems shall be appropriately designed to provide fully integrated designs in terms of the incorporation of engineering services into the building fabric and external spaces.

The need to maintain comfort conditions in accordance with the Room Data Sheets in all areas but particularly in clinical areas is of paramount importance and Project Co shall develop strategies for achieving these conditions together with minimum energy consumption.

Project Co shall provide natural and mechanical ventilation, comfort cooling, and air conditioning to suit the Facilities and clinical requirements and provision of the Clinical Services. Project Co shall provide a climate control facility in clinical and staff areas which are provided with comfort cooling (if applicable). The use of low carbon solutions is anticipated for such requirements.

Project Co shall provide the air lock to the first floor of the Link Building to the RIE Facilities in accordance with the Interface Output Specification, the Connection Proposal and relevant provisions or Paragraph 4 concerning any connections to the Link Building.

Project Co shall ensure heat gain from all equipment and personnel is allowed for in sizing and selection of the systems.

Project Co shall demonstrate how the proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with SHTM 03-01, SHFN 30 and HAI-SCRIBE.

Project Co demonstration is to cover all aspects of the building, its services, spatial relationships, Soft and Hard FM proposals (as appropriate) and incorporate requirements of the Board's Infection Control Team.

Project Co shall ensure that ventilation systems installed in areas classified as hazardous are designed to relevant standards.

Where grilles or diffusers are used within rooms Project Co shall ensure they are:

a) Arranged to avoid draughts; and

b) Designed to minimise noise intrusion into the space.

Project Co shall incorporate provision to include humidification to the AHU plant at a future date.

The Reference Design is developed in full at 1:500 and 1:200 scales. At 1:50 scale, where individual room layouts are detailed, the coverage is 53% of the total number of rooms (equating to 43% of the net floor area).

During Dialogue Bidders will be required to develop 1:50 layout drawings for the rooms identified in the table below which will form part of their proposals.

Table: 1:50 Layout Drawings to provided by the Bidders		
Room Reference	**Room Designation**	**Department**
G - A1 - 028/029	Resuscitation Bay	Emergency Department
G - E1 - 001	The Pod/Multi-functional activity zone	Outpatient Area
G - D2 - 013	Lung Function Laboratory	Cardiology and Respiratory
1 - D6 - 053-4	Rehabilitation Rooms	Therapies
1 – J1 – 003	Body Viewing	Bereavement Suite
2 – R1 – 001-055	All	Clinical Management Suite
3 – H3 – 001	Workshop/Tutorial 3	Clinical Education Suite
3 – C1.1 – 042	Clean Utility	Medical In-patients
4 – H1 – 018	Molecular Biology Laboratory	Child Life and Health
4 – H1 – 027	Physiological Laboratory	Child Life and Health
4 – H1 – 016	Tissue Culture Store	Child Life and Health

The Preferred Bidder will be required to develop 1:50 layout drawings for all remaining rooms prior to Financial Close.

2.5.3 Room Data Sheets

Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the "**Room Information**") are detailed in a combination of the following documents:

- The Board's Construction Requirements;
- The Environmental Matrix;
- The Schedule of Operational/Design Notes;
- The Equipment Schedule;
- The Equipment Responsibility Matrix;
- The Draft Schedule of Accommodation; and
- The Operational Functionality elements of the Reference Design.

During Dialogue Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings have been prepared. For the avoidance of doubt this shall include all Key Rooms and Generic Rooms in addition to those rooms identified in the table at paragraph 2.5.2 above. The Room Data Sheets will form part of the Bidders proposals. The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close.

2.6 Indicative Elements of the Reference Design

During the preparation of the Mandatory Reference Design Requirements, other information has been generated both as a by-product of preparing the Reference Design itself and as a general Project requirement as follows:

1980s strongly suggested that this specialised ventilation for prosthetic joint surgery, usually called ultraclean ventilation (UCV), reduced infection rates, and hence UCV was adopted in many centres and countries. However, in the last decade or so, data from national registries such as in New Zealand and a review of recent research data, has suggested to some that UCV provides no additional benefit to the ventilation in conventional operating theatres when used with prophylactic antibiotics, given just before surgery. Furthermore, UCV is more expensive to install and has higher maintenance and energy costs. Nonetheless, the additional purity of air provided by UCV suggests that there is biological plausibility in having UCV in this setting, and many orthopaedic surgeons would probably require it for their patients. They and others might argue that the additional expense is justified given the considerable costs of treatment and the significant pain and disability that follow infection of a prosthetic joint.

4.2.2 In terms of preventing infection outside the operating theatre and specifically regarding isolation rooms for risk patients, negative pressure ventilation is used where the patient has a transmissible infection (**source isolation**) and you do not want the air from that patient spreading to other patients in the ward, i.e. air does not spread from the isolation room as the air pressure is negative there compared to other clinical areas nearby. Patients in this category would include those with COVID-19 infection. In contrast, positive pressure ventilation is used for protecting very vulnerable patients (**protective isolation**) such as those on cancer chemotherapy or a patient following organ transplantation where air from their room moves to other areas as the pressure there is higher than in surrounding clinical areas. This prevents the ingress of air from other parts of the ward where there may be pathogens such as methicillin-resistant *Staphylococcus aureus* (MRSA) and therefore protects the vulnerable patient from pathogens spread by air.

4.2.3 In addition to ensuring that the air is of sufficient quality, the air is filtered and the correct direction of airflow is achieved through differential air pressures expressed in Pasqual's (Pa), air changes per hour (ACH) and airflow rates (AFR). Therefore, a patient who is in a room with positive pressure ventilation, will have air pressures higher in that room, e.g. by 5 or 10 Pa compared to the surrounding area.

4.3 Relative importance of ventilation

4.3.1 Controlled ventilation such as in isolation facilities is one component of preventing infection being spread or being acquired by patients via air. This is especially important for patients who have highly transmissible infections such as measles or where patients are especially vulnerable to infection such as patients on cancer chemotherapy or

following bone marrow transplantation. However, in addition to ventilation itself, other measures are required such as standard and transmission-based precautions, including hospital hygiene, prophylactic antibiotics, etc. There is often much discussion over how many air-controlled rooms are necessary in acute hospitals, tertiary referral and specialist units both now and in to the future. However, an important starting point in deciding that is to consider how many at-risk patients are likely to be admitted under the categories described above.

4.3.2 It is challenging to identify specially the exact contribution a controlled ventilated area may have in either preventing a patient acquiring infection or in general preventing infections being transmitted within a hospital, because ventilation is not used alone, but is part of a suite of preventative measures. However, recent experience with COVID-19 highlights the importance of isolation and cohorting in reducing healthcare-associated SARS- Co-V2. The experience in Hong Kong during the SARS outbreak in the 2000s prompted the authorities there to build additional isolation rooms, which may partially explain the better preparedness of countries such as Hong Kong, Singapore and China for initially dealing with COVID-19, having experienced major problems with SARS (7). This lesson was not learned in most European countries, hence the experience of open and often over-crowded hospitals during some of the early phases or waves of the COVID-19 pandemic.

4.4 Differing standards between countries and in different clinical areas

4.4.1 Although I have had general input into the most recent version of HTM03-01, I am not an expert in the detailed technical specifications for a ventilation system. However, my assumption and understanding is that these are aimed at optimising the ventilation system to address the risk to patients and indeed staff. Hence, while there may be minor differences between Scottish and other standards in the UK, these are probably not significant in terms of their clinical implications. However, standards often have to balance logistics, cost, common sense/plausibility and feasibility with risk, while following any scientific evidence where it exists. Hence, the highest specifications in terms of air changes or provision of a lobby are especially important in those patients most at risk such as patients with neutropenia.

4.4.2. The specifications and literature relating to the operating theatre are somewhat more extensive in many ways for historical reasons, e.g. the need to remove potentially toxic gases, even though the evidence-base is far from definitive. There is acknowledgement that the critical care area, including high dependency units, should have controlled ventilation with single rooms and in HBN-04-02, published in 2013, it is recommended that at least 20% of beds should have controlled ventilation but that that would increase to 50% if many patients

NHS Lothian

Royal Hospital for Sick Children

& Department of Clinical Neurosciences

Reference Design Stage

BREEAM 2008/2011 Comparison and Project Implications

Sept 2011

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.....Making Buildings Work

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Revision:	A
Date:	Sept 2011

NHS Lothian

Royal Hospital for Sick Children

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Reference Design Stage BREEAM 2008/2011

Comparison and Project Implications

Sept 2011

REV	DESCRIPTION	PREPARED BY	DATE
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NHS Lothian
Royal Hospital for Sick Children
& Department of Clinical Neurosciences
Reference Design Stage
BREEAM 2008/2011Comparison and Project Implications

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1.0 Introduction:

This Report has been prepared by Jonathan McMillan for Hulley ECO, a sustainable building design and building simulation division within Hulley & Kirkwood Ltd. Jonathan has the following qualifications relative to sustainable building design and building simulation;

- MEng (Hons). in Mechanical Engineering - The University of Edinburgh
- BRE Approved Certifier of Design for Section 6 Compliance
- Integrated Environmental Solutions (IES) accreditation covering Section 6 Compliance for building types 3, 4 & 5 and for preparation of Energy Performance Certificates.
- BRE ISBEM software qualification
- CIBSE Low Carbon Consultant Simulation Specialist
- CIBSE Low Carbon Consultant Building Design Specialist
- Licensed BREEAM Assessor – Health Care

1.1 Report Scope

"BREEAM Healthcare 2008" was first issued on 24th June 2008. As of 1st July 2008 all health authorities in the UK required that all healthcare buildings seeking Outline of Business Case (OBC) approval commit to achieving an Excellent rating.

The original Royal Hospital for Sick Children (RHSC) only scheme was registered under the *"BREEAM Healthcare 2008"* assessment method by Hulley & Kirkwood during February of 2010. A pre-assessment checklist was issued and the design team set in motion a plan of action to achieve a *"BREEAM Healthcare 2008 "* Excellent rating under this scheme. It was confirmed through the pre assessment checklist estimator and subsequent design development during 2010 that an Excellent rating was achievable.

Following the change of procurement route towards the end of 2010 (HFS Framework to SFT route) and the alteration to the project scope to include the Department of Clinical Neurosciences (DCN), the RHSC-DCN Reference Design brief was formalised by NHSL with the Reference Design period commencing from the end of April 2011. As the project was already registered with the BRE, Hulley & Kirkwood were able to retain the registration number for project, and as a result, are currently able to pre-assess the combined RHSC/DCN building under the "*BREEAM Healthcare 2008"* assessment method.

During May and June of 2011, Hulley & Kirkwood prepared the pre-assessment for the new scheme and on the 8th July 2011 circulated a Reference Design stage "*BREEAM Healthcare 2008"* pre-assessment check list for the current RHSC/DCN building confirming again that an Excellent rating is achievable under this assessment criteria. The actions required to achieve a formal "*BREEAM Healthcare 2008"* Excellent rating were also confirmed. This is one of the Reference Design agreed deliverables already carried out in accordance with the agreed Reference Design program.

Following the "*BREEAM 2011 New Construction"* scheme going live on 1st July 2011, Hulley & Kirkwood have been requested by NHSL to prepare a short report highlighting the key differences between the *"BREEAM Healthcare 2008"* and new *"BREEAM 2011 New Construction"* assessment criteria and how this would affect the RHSC-DCN scoring estimate and predicted rating.

The intention of this report is to highlight the differences between the *"BREEAM Healthcare 2008"* scheme and its replacement, the new *"BREEAM 2011 New Construction"* scheme, and to identify the key risk areas which are highly likely to affect NHSL's aspirations of achieving an Excellent rating should the 2011 assessment criteria be applied instead of the 2008 assessment criteria.

It should be noted that this document is not intended as an exhaustive list of every difference between the *"BREEAM Healthcare 2008"* and *"BREEAM 2011 New Construction"* assessment methods.

Following the completion of the Reference Design stage, the project could continue to be assessed under the *"BREEAM Healthcare 2008"* assessment method. However, if the project reference number is not transferred the project will have to be re-registered under the new *"BREEAM 2011 New Construction"* assessment method.

1.2 Executive Summary

Hulley & Kirkwood have already prepared and circulated a reference design stage *"BREEAM Healthcare 2008"* pre-assessment check list for the current RHSC/DCN building which illustrates the actions required to achieve a BREEAM Excellent rating. This is one of the reference design agreed deliverables.

Credits within the checklist have been broken down into three categories

- **Best Value BREEAM credits** - Credits which form the basis of best practice design and which benefit the overall design with limited additional cost
- **Add-ons for excellent credits** - Technically challenging credits above best practice design which have implications on project cost, procurement strategy and site space requirements.
- **Unlikely credits** - Credits which are deemed unobtainable / unlikely for the reasons detailed

It was determined that a BREEAM Excellent rating was achievable in principle with input from the Reference Stage design team and the subsequent successful bidder design team. It was determined that a maximum potential score of **79.53%** was achievable, with 56.17% being attributed to "*Best Value BREEAM credits*" and 23.16% being attributed to "*Add-ons for BREEAM Excellent*".

Subsequent to the issue of this checklist Hulley & Kirkwood have compared the 2008 and 2011 BREEAM assessment methods on a credit by credit basis and have compiled an equivalent scoring for the project under the 2011 assessment method. The results of this comparison can be seen in table 1.2 below. The comparison demonstrates that the maximum potential score under the 2011 assessment method is significantly lower than that under the 2008 assessment method. Results highlight that, if the project is to be assessed under the 2011 assessment method, there is a high probability that an Excellent rating is not likely to be achieved and that a high Very Good rating is more likely for an acute hospital building on this restricted site.

Credit Type	Description	BREEAM 2008 Score	BREEAM 2011 Score
Best Value BREEAM credits	Credits which form the basis of best practice design and which benefit the overall design with limited additional cost	**56.17%**	**51.97%**
Add-ons for excellent credits	Technically challenging credits above best practice design which have implications on project cost, procurement strategy and site space requirements	**23.36%**	**17.74%**
Unlikely credits	Credits which are deemed unobtainable / unlikely for the reasons detailed	**20.47%**	**30.29%**
Maximum Potential Score	Maximum Potential Score including Add-ons for Excellent	**79.53%**	**69.71%** **(A drop of 9.82%)**
	BREEAM Excellent Rating Achieved (70% Required)	**Yes**	**No**

Table 1.2.1 Comparison of Potential Scoring between BREEAM 2008 and 2011 Assessment Methods

1.3 Risk areas associated with minimum credit standards

Having compiled a comparison of maximum potential scoring for the two assessment methods Hulley & Kirkwood have identified the following other specific high risk areas associated with achieving a BREEAM Excellent rating under the 2011 assessment method. In addition to the general more onerous scoring criteria overall, there are a number of "Minimum Standard" scoring requirements which must be achieved , without which Excellent will not be granted, even if the total scoring elsewhere passes the Excellent scoring threshold. These are :

§ Ene 01: Reduction of CO2 emissions

The Building Regulations Scotland were revised during October 2010 with more onerous targets for carbon reduction in new buildings as confirmed in Section 6 of the regulations. This new Section 6 raised the pass threshold for all new buildings from -28% carbon reduction to -50% carbon reduction relative to the “Notional Building”. In addition, the “Notional Building” in the 2010 Regulations became more efficient, meaning that the improvement relative to the previous 2007 version of the Building Regulations was in fact even greater.

In order to achieve a *“BREEAM 2011 New Construction”* Excellent rating a project must score at least six credits in the ENE01 section. In order to achieve six credits the building CO_2 emission rate must be reduced to a level representing a 25% improvement beyond the current 2010 Building Regulations, ie achieve a Building CO_2 emission rate (BER) which is 25% less than the Target CO_2 Emission Rate (TER). This reduction represents a total reduction in CO_2 emissions of 70% relative to the 2010 “Notional Building”. This is clearly an extremely onerous target for a highly serviced Acute Hospital facility with departments which inherently attract high energy profiles.

We have assessed that currently, the Reference Design Envisaged Approach will provide a Building Regulations Section 6 2010 compliance route in terms of reduction of carbon emissions. Our RHSC-DCN Sustainability Options Executive Summary Report explains how we achieve this with Best Practice Energy Efficiency measures, Passive Energy Conservation measures, the extensive use of PV panels (800m2 surface area) and key to the strategy, a gas fired Combined Heat and Power Unit located within the Energy Centre. The report illustrates the relative benefit of each measure - it can be seen that the CHP has the largest impact in the reduction of carbon emissions as well as being able to reduce the cost of energy through the generation of electricity on site by means of gas supply, with engine heat recovered for use within the facilities heating system. The report also analyses alternative and additional Low or Zero Carbon Generating Technologies (LZCT) and explains why the use of these alternatives for this project on this site is not practical which in summary are:

- Ground Source Heat Pump – We estimate a ground area of around 4,800m2 with 250 off, up to 150m deep, closed loop bored pipe system would be required to generate around 1500kW of low temperature heat which could be used for AHU frost coil load. Tight site boundary constraints dictate that this option is not a practical proposition for this site.

- Biomass Boiler Plant – We estimate an additional 150m2 internal Energy Centre plant space and 60 m2, 5m deep woodfuel bunker adjacent, with tipper truck delivery access required frequently would be necessary for a base heat load biomass boiler and large accumulator vessels. Likely planning objections arising from air quality issues (woodfuel flue particulates) and significantly increased flue chimney height along with the practical difficulties of safely managing woodfuel deliveries every other day via tipper trucks dictate that this option is not a practical proposition for this site.

- Solar Thermal Panels – Solar hot water systems whilst a worthwhile idea generally, are not complimentary for operation alongside CHP plant since both technologies are attempting to tackle base heat load demand. In this regard, it is a one or other technology choice, and for an acute hospital, CHP plant can make a much more significant impact on carbon reduction.

- Wind Turbines - Tight site boundary constraints dictate that this option is not a practical proposition for this site. Remote installation may be feasible at a scale which could make a significant reduction in carbon emissions for the RHSC-DCN only if carbon reduction benefits are transferable. The Scottish Government's current policy of grid electricity supply de-carbonisation through wind and wave renewable infrastructure projects in Scotland should eventually manifest in a formal reduction in the carbon emission factor associated with grid supplied electricity applied to Section 6 SBEM compliance calculations. In effect, this would automatically lead to a reduction in carbon emissions associated with the electrical consumption for the facility. The total electrical consumption is likely to represent around 40% of the total energy consumption and currently around 57% of the total carbon emissions, thus any decarbonisation of grid supplied electricity would be significant in the reduction of carbon emissions overall.

To recap, to achieve the *BREEAM 2011 New Construction* Ene 01 "Minimum Standard" for Excellent, we would need to improve our carbon reduction performance by a further 25% from where we currently stand. We are currently achieving -51.7% carbon relative to the 2010 "Notional Building" and would need to get to at least -70% less carbon. The only technology we feel can get some way towards this is by employing another CHP engine within the Energy Centre. Thus we would have a CHP engine operating to provide base load heat and power demand continuously for the whole year (apart from maintenance downtime) and a second engine operating approximately half of the year (mid season and winter) providing over base load heat and power demand. There is a practical limit on the selection of the engines against the buildings projected annual heat and power demand and transient profiles, and whilst we feel it is possible theoretically to get **close** to the target on current estimates, in reality we have reservations that the number can actually be achieved and would highlight the very high risk of it not being possible to achieve this credit without some other "off-site" Zero Carbon energy generating technology which could somehow be used to offset a further portion of the buildings carbon emissions.

By way of impact on special requirements, a second CHP would require the Energy Centre internal space to be increased from 1008m2 by +200m2 to 1208m2 and the external space to be increased by 80m2 to place heat rejection radiators for the second CHP. There would be no significant impact on the internal Hospital building plant space requirements with this proposal.

Table 1.2.2 below provides a comparison of the Notional, Target and Building Emission Rates in addition to the Minimum Standard emission rate required for BREEAM 2011 New Construction to achieve an Excellent rating.

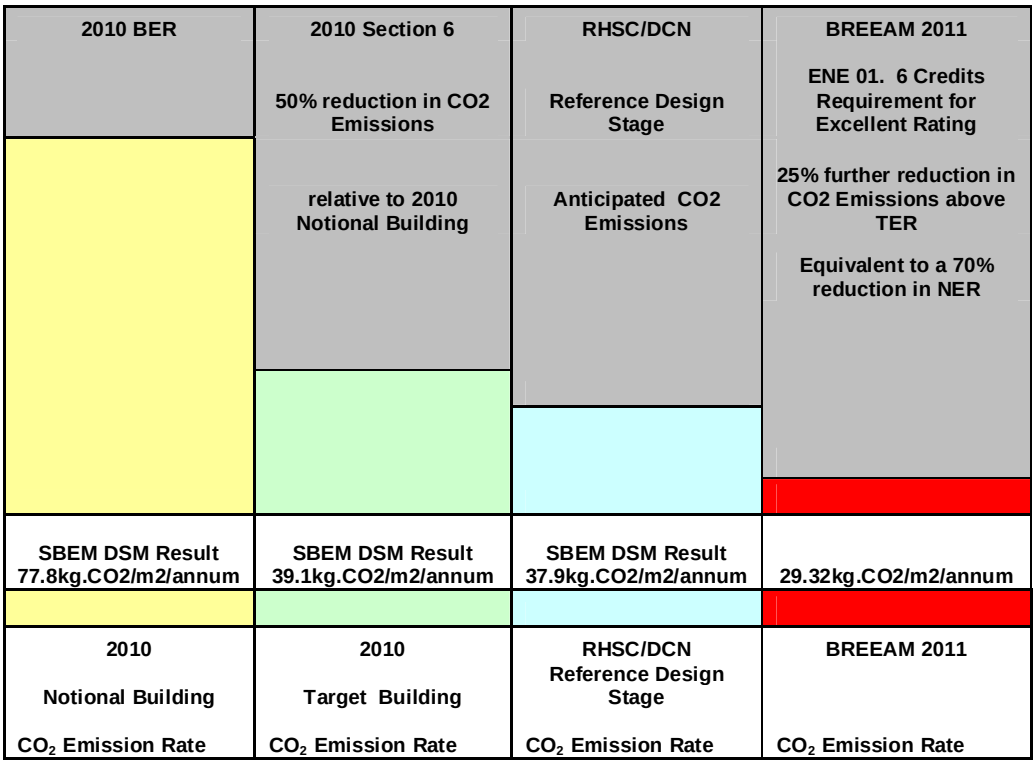

Table 1.2.2 2010 CO2 Emission Rate Targets

§ Wat 01: Water consumption

In order to achieve a BREEAM excellent rating a project must score at least one credit in the WAT01 section. In order to achieve this it must be demonstrated that the building can reduce its water consumption by approximately 12.5%. This will be difficult to achieve for a heavily serviced acute hospital building without additional water saving / recycling equipment. This may for instance require a substantial below ground rainwater harvesting scheme and filtration system, which would require significant extra site space for underground water storage and re-distribution of recovered water into the facility.

1.4 Concluding Remarks

- If assessed under the *BREEAM 2011 New Construction* scheme the project is highly like to not achieve the desired BREEAM Excellent rating for the reasons explained associated with “Minimum Standard” scoring credits.

- A Like for Like comparison has highlighted that the current level of credit compliance anticipated for the *BREEAM 2008 Healthcare* assessment method will be insufficient to achieve the minimum percentage scoring level of 70% under the 2011 assessment method required to achieve BREEAM Excellent.

- There is very significant additional risk associated with the “Minimum Standard” credits required for *BREEAM 2011 New Construction* to achieve Excellent. The greatest of these is ENE01 Reduction of CO2 emissions. The required CO2 emission reduction associated with this credit represents a total reduction in CO_2 emissions of 70% relative to the 2010 Building Regulations Notional Building. It should be noted that this is an extremely onerous target and is likely to incur significant design and cost implications even if it were possible. Our current analysis indicates it is not a practical proposition due to the restricted nature of the site and site boundary constraints.

2.0 Changes within BREEAM 2011

To maintain a flexible system *BREEAM 2011 New Construction* retains the balanced approach to the assessment and rating of building performance. This means that, to achieve a particular level of performance the majority of BREEAM credits can be traded, i.e. non-compliance in one area can be off-set through compliance in another to achieve the target BREEAM rating.

However, as per the *BREEAM Healthcare 2008* assessment method, to ensure that performance against fundamental environmental issues is not over-looked in pursuit of a particular rating, BREEAM 2011 improves Minimum Standards of performance in key areas e.g. energy, water, waste etc. It is important to bear in mind that these are minimum acceptable levels of performance and, in that respect they should not necessarily be viewed as levels that are representative of best practice for a BREEAM rating level.

To achieve a BREEAM Excellent rating the minimum overall percentage score of 70% must be achieved and the minimum standards, detailed in Table 2.1 below and overleaf must also be achieved.

Credit	Minimum Scoring required for Excellent	HK Comment
Man 01: Sustainable procurement	**One credit**	Equivalent to 2008 Assessment method. No additional risk
Man 02: Responsible construction practices	**One credit**	Equivalent to 2008 Assessment method. No additional risk
Man 04: Stakeholder participation	**One credit**	Building user information required Equivalent to 2008 Assessment method. No additional risk
Hea 01: Visual comfort	**One credit**	Equivalent to 2008 Assessment method. No additional risk
Hea 04: Water quality	**One credit**	Equivalent to 2008 Assessment method. No additional risk
Ene 01: Reduction of CO2 emissions	**Six credits**	BREEAM Excellent level (≥6 credits): Requires a CO2 parameter for the EPRNC calculation of 0.22. This is equivalent to a 25% improvement on the TER. **Significant Risk to RHSC DCN Excellent Rating.**
Ene 02: Energy monitoring	**One credit (First sub-metering credit)**	Equivalent to 2008 Assessment method. No additional risk
Ene 04: Low or zero carbon technologies	**One credit**	Equivalent to 2008 Assessment method. No additional risk

Table 2.1 continued…..

Wat 01: Water consumption	**One credit**	The water consumption (litres/person/day) for the assessed building is compared against a notional baseline performance and a minimum 12.5% improvement is required **Significant Risk to RHSC DCN Excellent Rating.**
Wat 02: Water monitoring	**Criterion 1 only**	Water meter required on incoming water main (regardless of water source) Equivalent to 2008 Assessment method. No additional risk
Mat 03: Responsible Sourcing	**Criterion 3 only**	All timber must be sourced in accordance with the UK Government Timber Procurement Policy Equivalent to 2008 Assessment method. No additional risk
Wst 03: Operational waste	One credit	Equivalent to 2008 Assessment method. No additional risk
LE 03: Mitigating ecological impact	One credit	Equivalent to 2008 Assessment method. No additional risk

Table 2.1 Minimum Excellent Rating Requirements

The following section provide a brief summary of the changes to individual credits

2.1 Management

Man 01 – Sustainable procurement

This section is comprised of BREEAM 2008 sections;

- Man 1: Commissioning - 2 credits, as previously
- Innovation credit: BREEAM AP - Now increased to 3 credits, with the first credit now split into 2 credits and the second credit remaining the same.

In addition there are new credits as follows;

- 1 credit for post construction thermo-graphic survey and remedial works where required
- 1 credit for a defined decision making process (to include the design team, contractor and occupier); agreed roles / responsibilities and schedule of training for building manager(s).
- 1 credit for post occupancy monitoring to collect energy & water data for 12 months post occupation and 'aftercare support'.

2.1/….

Man 02 – Responsible construction practices

This section is comprised of BREEAM 2008 section Man 2: Considerate Constructors and is worth 2 credits, as previously assessed under BREEAM 2008

Man 03 – Construction site impacts

This section takes a number of the BREEAM 2008 Man 3 sections and awards credits as follows;

- 1 credit for site energy targeting, monitoring and reporting (an enhancement of 2008 Man 3 item a)
- 1 credit for site water targeting, monitoring and reporting (an enhancement of 2008 Man 3 itemc)
- 1 credit for site transport monitoring and reporting an enhancement of 2008 Man 3 item b)
- 1 credit for sourcing sustainable site timber (similar to 2008 Man 3 timber credit)
- 1 credit for construction site management (EMS & pollution management similar to 2008 Man 3 items d, e & g)*Man 04 – Stakeholder participation*

This section is comprised of BREEAM 2008 sections;

- Man 4: Building user guide - 1 credit, as previously
- Man 6: Consultation - 1 credit, for covering the requirements of both 2008 credits and now also applies to commercial buildings. For schools this also now includes some elements of 2008 credit LE7.
  In addition there are new credits as follows;
- 1 credit for ensuring building accessibility, this contains some of the 2008 Man 7 credit requirements
- 1 credit for carrying out Post Occupancy Evaluation

Man 05 – Life cycle cost and service life planning

This section is comprised of BREEAM 2008 section Man 12 – Life cycle costing which is now increased to 3 credits, with the first credit now split into 2 credits and the second credit remaining the same.

2.2 Health & Wellbeing

Hea 01 – Visual comfort

This section is comprised of BREEAM 2008 sections;

- Hea 4: High frequency lighting - No credit value, but a minimum requirement for all rating levels
- Hea 1: Daylighting - 1 -2 credits, depending on building type
- Hea 2: View out and Hea 3: Glare control - Generally 1 credit, for both sections (2 credits for some healthcare buildings)
- Hea 5: Internal & external lighting levels and Hea 6: Lighting zones & controls - 1 credit, for both sections
- Hea 19: Arts in health - 1 credit, for healthcare only

Hea 02 – Indoor air quality

This section is comprised of BREEAM 2008 sections;

- Hea 7: Potential for natural ventilation - 1 credit, as previously
- Hea 8: Internal air pollution - 1 credit, as previously
- Hea 9: Volatile organic compounds - 1 credit, as previously
- Hea 17: Specification of laboratory fume cupboards and Hea 18 : Containment Level 2 & 3 laboratory areas - 1 credit, for both sections (only applicable where labs within the building)

In addition there is a new credit as follows;

- 1 credit for pre-occupancy VOC testing

Hea 03 – Thermal comfort

This section is comprised of BREEAM 2008 sections;

- Hea 10: Thermal comfort - 1 credit, as previously assessed under BREEAM 2008
- Man 11: Thermal zoning - 1 credit, as previously assessed under BREEAM 2008

Hea 04 – Water quality

This section is comprised of BREEAM 2008 sections Hea 12: Prevention of legionella and Hea 16; Drinking water worth 1 credit, for both sections

Hea 05 – Acoustic performance

This section is comprised of BREEAM 2008 section Hea 13: Acoustic performance worth 1 - 3 credits, as previously assessed under the 2008 scheme.

Hea 06 – Safety & security

This section is comprised of BREEAM 2008 sections;

- Man 8: Security - 1 credit, as previously and now also applies to commercial buildings
- Tra 4: Pedestrian & cyclist safety & Tra 8: Deliveries and Manoeuvring - Now 1 credit for both sections, all building types

2.3 Energy

Ene 01 – Reduction of CO2 emissions

Minimum standard requirements – 6 credits required for Excellent rating. A 25% reduction relative to the building TER is required in order to achieve a BREEAM Excellent rating.

This section is comprised of BREEAM 2008 section Ene 1:Reduction in CO2 emissions and is still worth 15 credits available with the top score still awarded for zero net CO2, however there is a new calculation method based on the TER from Part L BRUKL calculations rather than the EPC used for BREEAM 2008. At this stage it is difficult to be clear on what impact this is likely to have on scoring as the Ene 1 BREEAM calculator is not yet available.

Ene 02 – Energy monitoring

Minimum standard requirements;

This section is comprised of BREEAM 2008 sections;

- Ene 2: Sub-metering of major energy uses - now 1 credit, for all building types and no specific requirement for BEMS for healthcare buildings.
- Ene 3: Sub-metering of tenancy areas - 1 credit, as previously (except schools)

Ene 03 – External lighting

This section is comprised of BREEAM 2008 section Ene 4: External lighting worth 1 credit, as previously

Ene 04 – Low & zero carbon technologies

This section is comprised of BREEAM 2008 sections;

- Ene 5: Low and zero carbon technologies - 1 credit for feasibility study or green tariff in addition 1 further credit for 10% renewable energy
- Innovation credit: Ene 5 – 1 credit for 20% renewable energy (rather than the previous 15% under Ene 5)
- Ene 10: Free cooling - 1 credit, as previously but now for all building types

In addition there is a new credit as follows;

- 1 credit where the feasibility study also includes an LCA of the carbon impact of the chosen LZC system(s) and this results in a lifecycle reduction in CO2 emissions

Ene 06 – Energy efficient transportation systems

This section is comprised of BREEAM 2008 sections Ene 8: Lifts and Ene 9: Escalators and travelling walkways and is worth 2 credits. The first credit covers a transport analysis and system selection, the second covers specification of energy efficient features (both credits now cover lifts and escalators).

2.4 Transport

Tra 01 – Public transport accessibility

This section is comprised of BREEAM 2008 section Tra 1: Provision of public transport and is worth 2 – 5 credits, as previously (3 for offices & schools, 5 credits most other schemes).

Additionally, there is now also the option to get a maximum of 1 credit for buildings with a fixed shift pattern where a dedicated bus service is provided for building users. This is only available where no credits are achievable for scheduled public transport services.

Tra 02 – Proximity to amenities

This section is comprised of BREEAM 2008 section Tra 2: Proximity to amenities and is worth 1 credit for most schemes, with 2 credits available for Multi-Residential.

Tra 03 – Cyclist facilities

This section is comprised of BREEAM 2008 section Tra 3: Cyclist facilities and is worth 2 credits for most schemes. It is now possible to reduce cycle facilities by 50% if at least half the available Tra 1 credits have been achieved.

Tra 04 – Maximum car parking capacity

This section is comprised of BREEAM 2008 section Tra 6: Maximum car parking capacity and is worth 1 credit only for Healthcare

Tra 05 – Travel plan

This section is comprised of BREEAM 2008 section Tra 5: Travel plan and is still worth 1 credit.

2.5 Water

Wat 01 – Water consumption

This section combines BREEAM 2008 sections Wat 1: Water consumption and Wat 5: Water recycling and is now worth 5 credits. There is a new calculation method for all building types based on percentage improvement over a baseline of 'standard' sanitary fitting.
As the Wat 1 BREEAM calculator is not yet available is it is difficult to judge scoring impact at present.

Wat 02 – Water monitoring

This section combines BREEAM 2008 sections Wat 2: Water meter and Innovation credit: Wat 2 (where relevant) with 1 credit available for both sections.

Wat 03 – Leak detection

This section is comprised of BREEAM 2008 sections;

- Wat 3: Major leak detection - 1 credit, as previously assessed under BREEAM 2008
- Wat 4: Sanitary supply shut off - 1 credit, as previously assessed under BREEAM 2008

Wat 04 – Water efficient equipment

1 credit - all schemes, although may be filtered out if not relevant to building

This section is comprised of BREEAM 2008 sections Wat 6: Irrigation system and Wat 7: Vehicle wash and is now worth 1 credit for both sections.

2.6 Materials

Mat 01 – Life cycle impacts

This section is comprised of BREEAM 2008 section Mat 1: This is equivalent to the 2008 scheme.

Mat 02 – Hard landscaping and boundary protection

This section is comprised of BREEAM 2008 section Mat 2: Hard landscaping and boundary protection and is still worth 1 credit.

Mat 03 – Responsible sourcing of materials

This section is comprised of BREEAM 2008 section Mat 5: Responsible sourcing of materials and is still worth 3 credits.

Mat 04 – Insulation

This section is comprised of BREEAM 2008 section Mat 6: Insulation and is still worth 2 credits.

Mat 05 – Designing for robustness

This section is comprised of BREEAM 2008 section Mat 7: Designing for robustness and is still worth 1 credit.

2.7 Waste

Wst 01 – Construction site waste management

This section is comprised of BREEAM 2008 section Wst 1: Construction site waste management and is still worth 4 credits although waste benchmarks have been revised slightly.

Wst 02 – Recycled aggregates

This section is comprised of BREEAM 2008 section Wst 2: Recycled aggregate and is still worth 1 credit but now includes recycled aggregate targets for individual building elements.

Wst 03 – Operational waste

This section is comprised of BREEAM 2008 sections Wst 3: Recyclable waste storage, Wst 4: Compactor/baler and Wst 5: Composting and is now worth 1 credit for all sections (as relevant).

Wst 04 – Speculative floor & ceiling finishes

This section is comprised of BREEAM 2008 section Wst 6: Floor finishes and is still worth 1 credit but has now been extended to include ceilings.

2.8 Land Use & Ecology

LE 01 – Site selection

This section is comprised of BREEAM 2008 sections;

- LE 1: Reuse of land – 1 credit, as previously assessed under BREEAM 2008
- LE 2: Contaminated land – 1 credit, as previously assessed under BREEAM 2008

LE 02 – Ecological value of site and protection of ecological features

This section is comprised of BREEAM 2008 section LE 3: Ecological value of site and protection of ecological features and is still worth 1 credit.

LE 03 – Mitigating ecological impact

This section is comprised of BREEAM 2008 section LE 4: Mitigating ecological impact and is still worth 2 credits but uses revised habitat types.

LE 04 – Enhancing site ecology

This section is comprised of BREEAM 2008 section LE 5: Enhancing site ecology and is still worth 3 credits but uses revised habitat types.

LE 05 – Long term impact on biodiversity

This section is comprised of BREEAM 2008 section LE 6: Long term impact on biodiversity and is still worth 2 credits. Note this now includes the requirements of 2008 credit LE8 as an additional item for school assessments.

2.9 Pollution

Pol 01 – Impact of refrigerants

This section is comprised of BREEAM 2008 section;

- Pol 2: Refrigerant leak detection – Now 1 credit only for both leak detection and pump down

In addition there are new credits as follows;

- 1 credit where refrigerants have a direct effect life cycle CO2 equivalent of ≤ 1000 kgCO2e/kW cooling capacity
- 1 further credit where refrigerants have a direct effect life cycle CO2 equivalent of ≤ 100 kgCO2e/kW cooling capacity or GWP ≤10 (this would be met by achieving 2008 section Pol 1).

Pol 02 – NOx emissions

This section is comprised of BREEAM 2008 section Pol 4: NOx emissions and is still worth 3 credits.

Pol 03 – Surface water run-off

5 credits - all schemes

This section is comprised of BREEAM 2008 sections;

- Pol 5: Flood risk – 3 credits, as previously
- Pol 6: Minimising watercourse pollution – 1 credit, as previously assessed under BREEAM 2008

In addition there is a new credit as follows;

- 1 credit for additional attenuation of surface water run-off to ensure that local flooding will not occur in the event of local drainage system failure. This is in line with the requirements of the Code for Sustainable Homes.

Pol 04 – Reduction of night time light pollution

This section is comprised of BREEAM 2008 section Pol 7: Reduction of night time light pollution and is still worth 1 credit.

Pol 05 – Noise attenuation

This section is comprised of BREEAM 2008 section Pol 8: Noise attenuation and is still worth 1 credit.

2.10 Innovation

Man 01 – Sustainable procurement
1 credit for a 3 year commitment to monitor energy, water and occupancy satisfaction

Man 02 – Responsible construction practices
1 credit as 2008 Man 2 innovation credit.

Hea 01 – Visual comfort
1 credit as 2008 Hea 1 innovation credit.

Ene 01 – Reduction of CO2 emissions

Increased to 5 credits for a 'carbon negative' building

Ene 04 – Low or zero carbon technologies

1 credit for a 30% reduction in CO2 emissions as a result of specifying local LZC technologies

Wat 01 – Water consumption

1 credit for 65% improvement over benchmark

Mat 01 – Life cycle impacts

1 credit as 2008 Mat 1 innovation credit

Mat 03 – Responsible sourcing of materials

1 credit as 2008 Mat 5 innovation credit

Wst 01 – Construction site waste management
1 credit as 2008 Wst 1 innovation credit but now must also meet highest waste benchmark as well.

NHS Lothian

Royal Hospital for Sick Children

& Department of Clinical Neurosciences

Reference Design Stage

Section 6 SBEM Compliance Report

Revision A

February 2012

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.....Making Buildings Work

Prepared By:	Jonathan McMillan
Authorised By:	Michael O'Donnel
Rev.	A
Date:	17/02/2012

Doc. Location: K\Edinburgh2\projects\Drawings\11276A\Documentation\Rpts&Sch\Energy Reports\11276A Section 6 Compliance Report_Reference Design.doc

NHS Lothian
Royal Hospital for Sick Children
& Department of Clinical Neurosciences
Reference Design Stage
Section 6 SBEM Compliance Report

Revision A

February 2012

REV	DESCRIPTION	PREPARED BY	DATE
-	First Issue	JMcM/MOD	August 2011
A	Second Issue – Remodelled based on 1:200 Envisaged Solution	JMcM/MOD	Feb 2012

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1.0 Introduction

This report has been prepared by Jonathan McMillan for Hulley Eco, a sustainable building design and building simulation division within Hulley & Kirkwood LTD, in order to demonstrate that the proposed Reference Design envisaged energy approach and envelope performance criteria for the Royal Hospital for Sick Children / Department for Clinical Neurosciences building could be compliant with the 2010 version of Section 6 Energy of the Scottish Building Regulations further to departmental layouts progressing beyond the 1:500 stage to 1:200 stage.

Jonathan has the following qualifications relevant to building energy modelling & low carbon/sustainable building design

- MEng (Hons). in Mechanical Engineering - The University of Edinburgh
- BRE Approved Certifier of Design for Section 6 Compliance
- Integrated Environmental Solutions (IES) accreditation covering Section 6 Compliance for building types 3, 4 & 5 and for preparation of Energy Performance Certificates.
- BRE ISBEM software qualification
- CIBSE Low Carbon Consultant Simulation Specialist
- CIBSE Low Carbon Consultant Building Design Specialist
- Licensed BREEAM Healthcare Assessor

1.1 Building Energy Modelling

A Simplified Building Energy Model calculation (SBEM) has been carried out to demonstrate compliance with Section 6 of the 2010 Building Regulations for the envisaged Reference Design Stage building. The model's geometry was accurately drawn from final Reference Design Stage 1:200 architectural plan layouts supplied by the Architect, Nightingale Associates. Assumptions on the occupancies and internal heat gains were based on typical values for specific operational area usage associated with acute hospital departments included. The latest version of IES Virtual Environment modelling software has been used (IES version 6.4) to demonstrate compliance. The details of which are given in Table 1.1.

Calculation Engine:	Apache SIM
Calculation Engine (version):	V6.4
Interface to Calculation Engine:	IES Virtual Environment
Interface to Calculation Engine (version):	V6.4
BRUKL Compliance Check (Version):	V4.1.c.2

Table 1.1. Calculation Tool Details

It should be noted that IES Virtual Environment V6.4 is an approved non-domestic DSM software package accredited through the Scottish Building Standards Agency.

2.0 Simulation Component Properties

2.1 Building Fabric

The following building fabric U-values have been incorporated into the Simplified Building Energy Model (SBEM) Calculation.

	U-Value W/m^{2}K
External Wall	0.21
Floor	0.20
Roof	0.20
Windows / Roof lights	1.7
Personnel Doors	1.7

Table 2.1 Building Fabric

2.1.1 Cold bridging details

An approved dynamic software package, IES Virtual Environment, has been used to prove compliance with Section 6. The software incorporates cold bridging details by using specific ψ values, measured W/(m.K), for the relevant building element junctions.

	Junctions involving metal cladding	Junctions not involving metal cladding
Type of Junction	ψ (W/(m.K))	ψ (W/(m.K))
Roof-Wall	0.6	0.12
Wall-Ground Floor	1.15	0.16
Wall-Wall Corner	0.25	0.09
Wall – Floor (not ground)	0.07	0.07
Lintel above window	1.27	0.3
Sill below window	1.27	0.04
Jamb at window/door	1.27	0.05

Table 2.1.1 Element Cold Bridging Details

2.2 Building Air Tightness

The building air tightness incorporated within our final Reference Design Stage SBEM model was set to 7.5(m^3/h)/m^2@50pa.

2.3 Internal Conditions

The various operational zones were subject to internal gains determined from National Calculation Method (NCM) templates and operational schedules. NCM templates were used to describe the daily activities and associated gains for the following room types.

- A&E Consulting/treatment/work areas
- Bathroom
- Bedroom
- Changing Facilities
- Circulation Areas
- Classroom
- Common room/staff room/lounge
- Consulting Room
- Diagnostic room
- Eating/Drinking
- Food Preparation
- Hall/lecture theatre
- Hydrotherapy pool
- Industrial Process area
- Intensive Care
- IT equipment (comms server)
- Laboratory
- Laundry
- Meeting Room
- Operating Theatre
- Patient Accommodation Day
- Multi-bed Wards
- Physiotherapy Studio
- Plant room
- Post mortem facility
- Reception
- Storage Area
- Tea Making
- Toilet
- Waiting Room
- Ward Offices

For the National Calculation Method (NCM) templates detailed above, the following gains are taken into account;

- Occupancy sensible
- Occupancy latent
- Lighting
- Activity specific equipment
- Miscellaneous small power

2.3/….

The nature of Section 6 SBEM modelling means that internal gains and operational profiles are fixed for both the Notional and Design buildings. These cannot be edited by the engineer.

2.4 External Conditions

Each scenario was simulated with respect to statistically predicted weather data and the local solar path, determined by the location and orientation of the site. Details of the solar path and annual ambient thermal profile can be seen in sections 2.4.1 & 2.4.2 respectively.

2.4.1 Solar Axis and Azimuth.

The following data is embedded within IES and is used to determine the magnitude of solar gain experienced due to direct sunlight exposure.

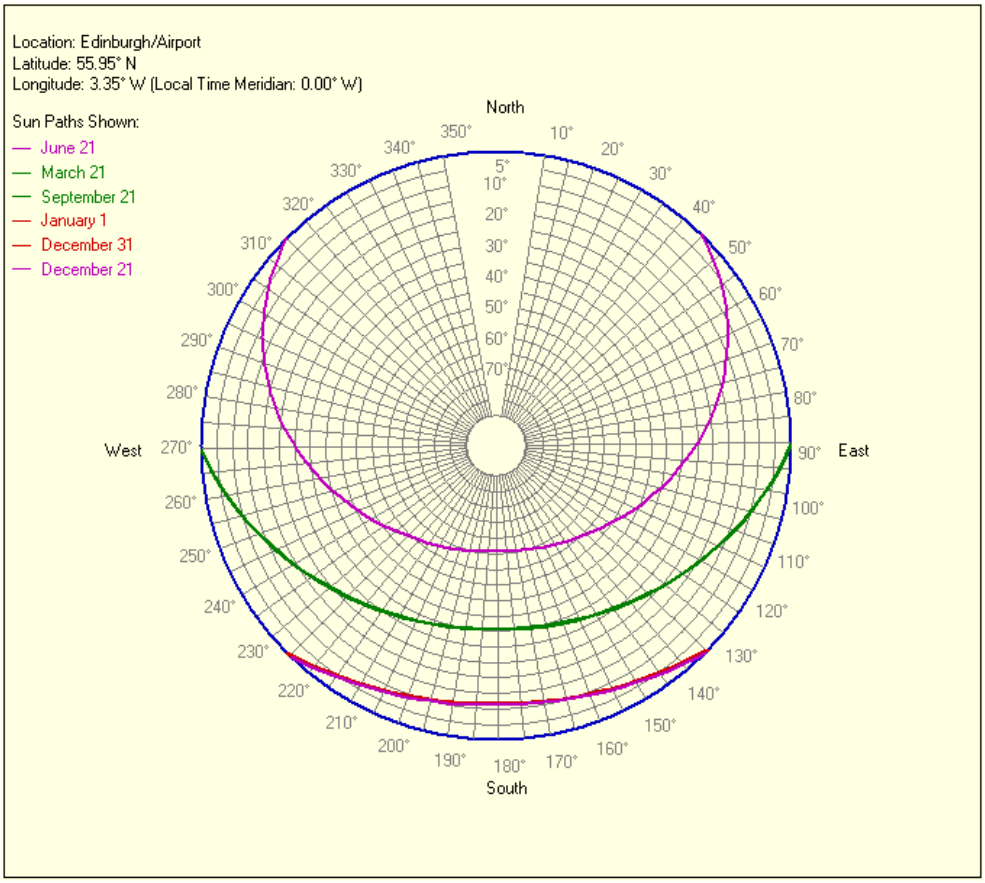
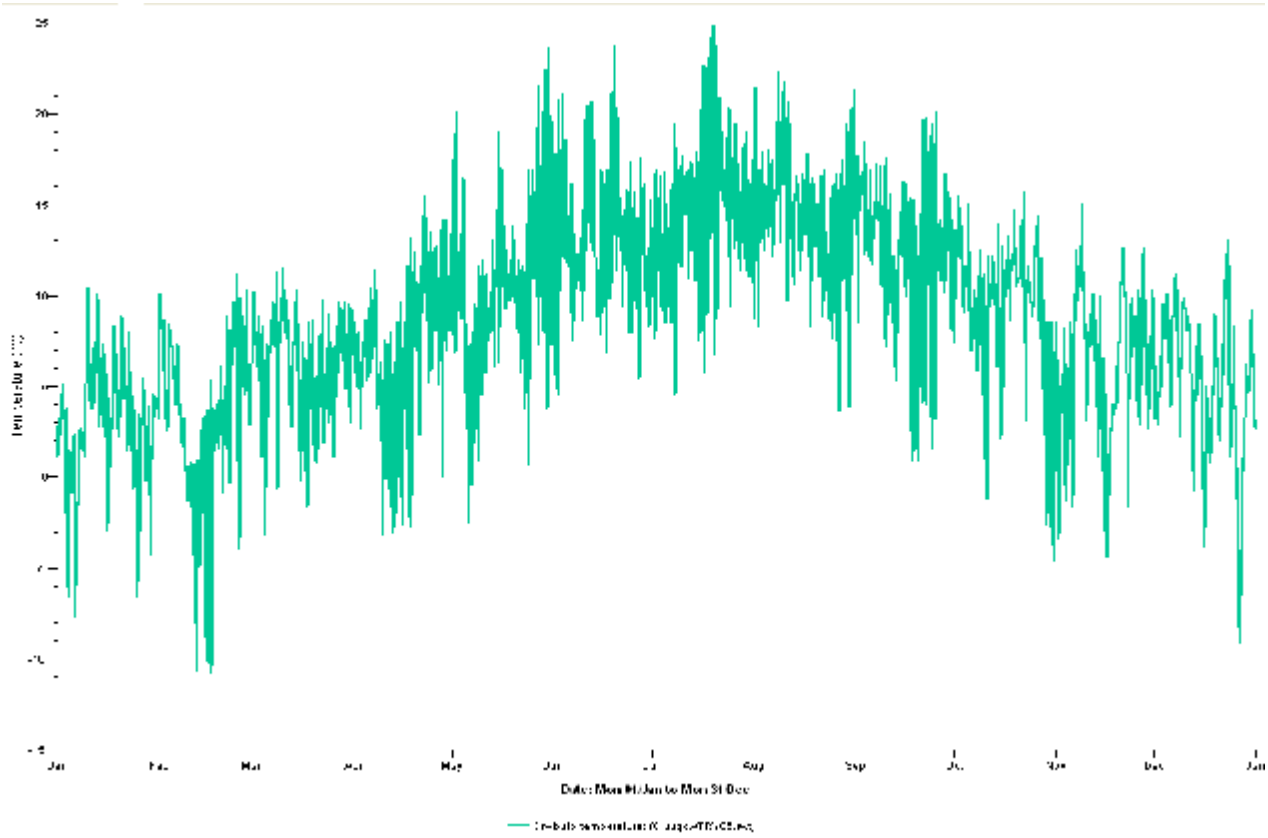


Figure 2.4.1 Solar Path Data

2.4.2 **Ambient external dry bulb temperature.**

As per the requirements of Section 6 of the Scottish Building regulations the Test Reference Year (TRY) weather file for Glasgow has been used.



2.5 Space Conditioning Systems

The heat source is a two system modular array comprising approximately 600kW (thermal) of waste heat from an onsite LZCT i.e. gas fired CHP engine operating alongside dual fuelled gas/oil boilers.

The generating technologies operate successively as follows;

1. Waste heat from the CHP engine is the first contributing low carbon heat source for the system meeting the envisaged base load heating demand.

2. The gas/oil boiler plant supplies the remainder of the seasonal heating loads, working in conjunction with the low carbon plant.

Thermal templates have been created to reflect the space heating and domestic water systems present in the new RHSC / DCN building. Thermal templates define the generating efficiency of mechanical plant, the specific fan power of mechanical ventilation plant, the SCoP of chillers and attribute auxiliary energy consumption to each system type based on energy u.sed by auxiliary pumps, fans and controls. The envisaged building systems present in RHSC / DCN Reference Design Stage building can be described as follows;

- LTHW radiant ceiling panels with local TRV temperature control with tempered and comfort cooled fresh air supply and general extract ventilation through central mechanical AHU plant with heat recovery devices.

- Heating & cooling supplied by mechanical ventilation, with use of local duct mounted reheat batteries and general extract ventilation through central AHU plant with heat recovery devices.

- Chilled water cassettes / FCUs for cooling of isolated high gain zones such as meeting rooms, equipment control rooms, IT/Hub rooms, ward kitchens and non-clinical area hot spots.

2.6 Additional Zero Carbon Generating Technologies (LZCGTs)

Photovoltaic technology generates electricity from light. Photovoltaic panels are distinct from other renewable energy technologies since there are no moving parts to be maintained and they are silent.

We have assessed the application of embedded photovoltaic panels on a south facing and south sloping roof and have assessed this technology on the basis of an active area of 800m^2 to demonstrate the benefits in contribution of zero carbon electrical energy to the building to assist with Section 6 compliance.

2.7 Building Geometry

A geometrically accurate representation of the new build Royal Hospital for Sick Children / Department for Clinical Neurosciences building was constructed from the architect's reference stage departmental layouts using the Model IT package within the IES Virtual Environment. As building elevations have not yet been formalised glazing has been added to the external walls such that 25% of the external wall area is glazed. This can be seen in figures 2.7.1 to 2.7.2 below.

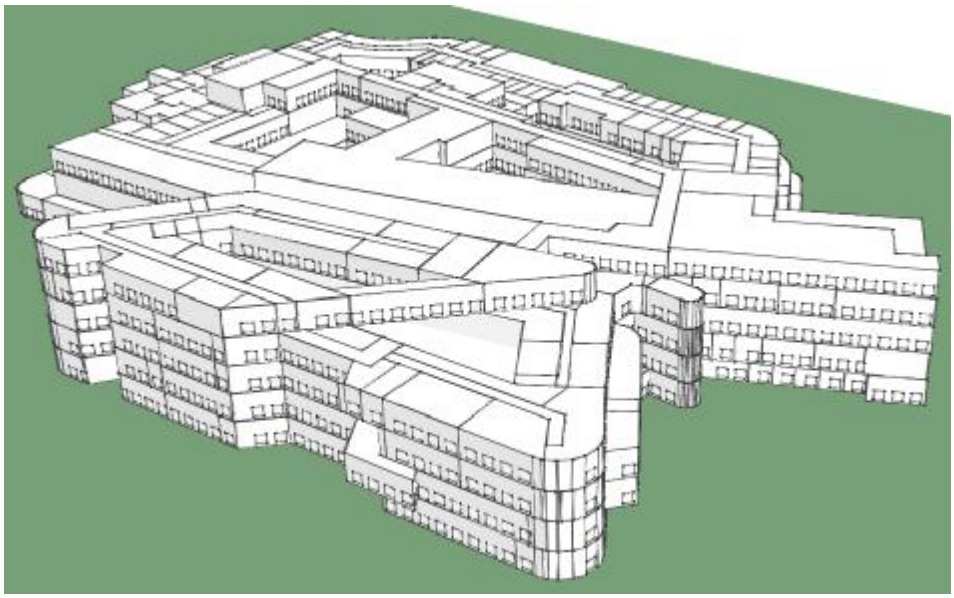


Figure 2.7.1 Model Geometry

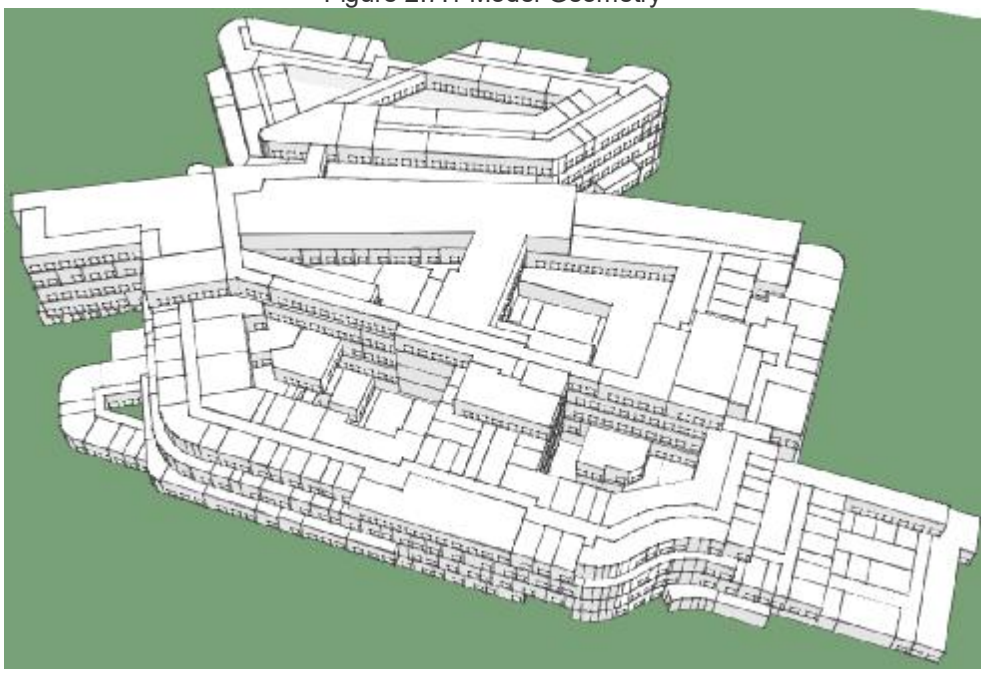


Figure 2.7.2 Model Geometry

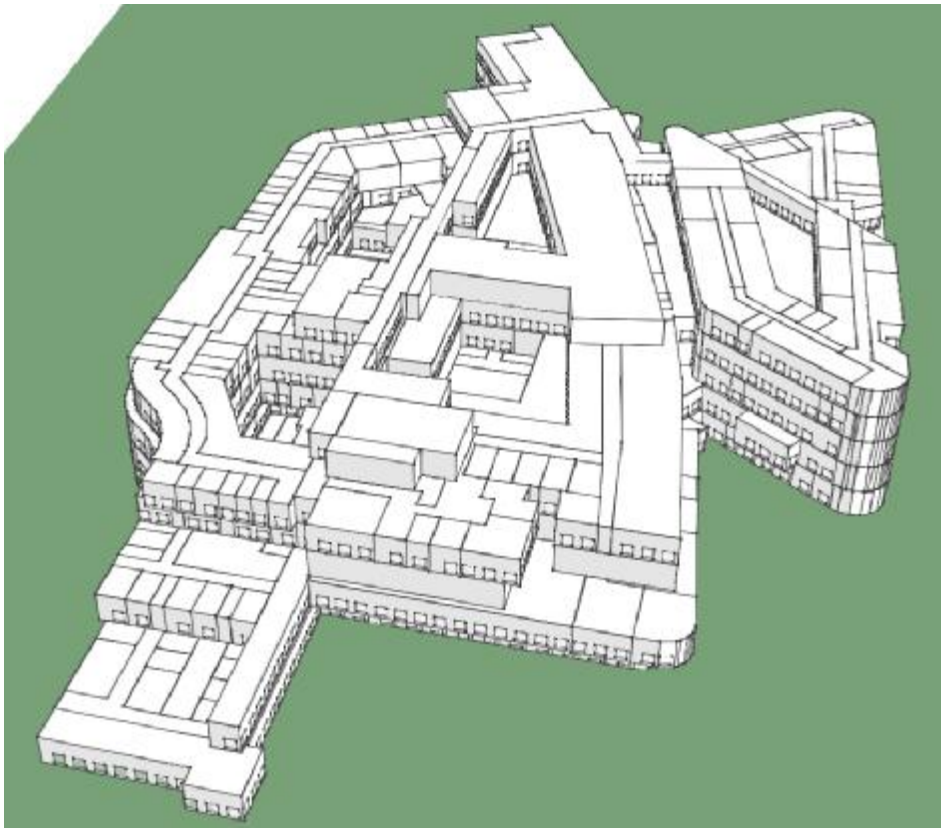


Figure 2.7.2 Model Geometry

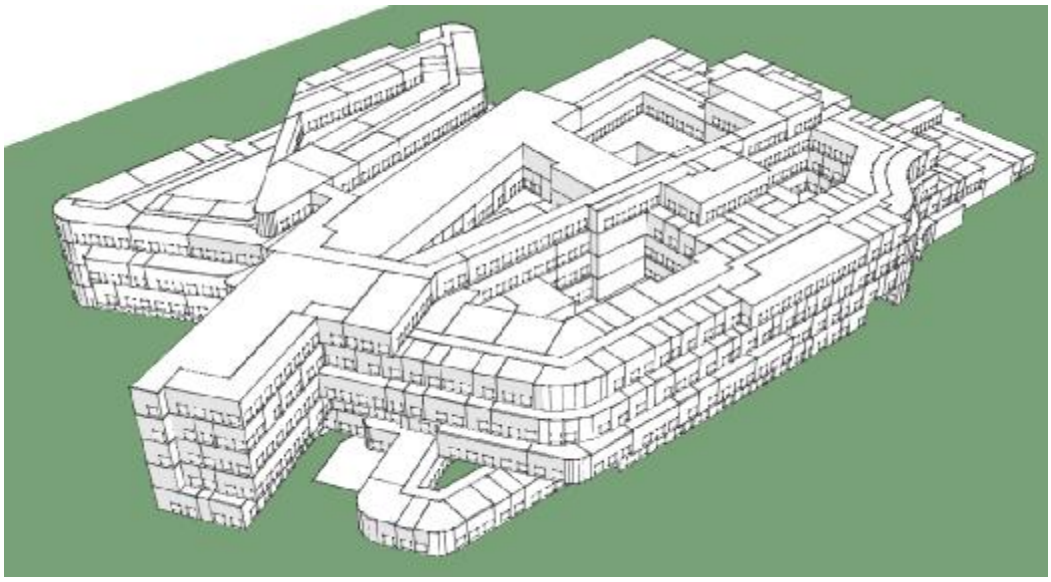


Figure 2.7.2 Model Geometry

3.0 Building CO2 Emission Results

Results of our SBEM Section 6 compliance simulation are detailed in Table3.0 below. Please refer to attached BRUKL Document for confirmation of NER, TER & BER.

- The NER is the Notional CO_2 Emission Rate for a building comprising the same geometry, location and operational usage/usage profile, but which is not designed to the current building regulations.

- The TER is the Target Emission Rate for the design building, which is derived from the improvement factor and LZCT factor detailed in Table 3.0 above. The improvement factor is based around the proportion of natural ventilation to mechanical ventilation within the building. A fully mechanically ventilated building will have an improvement factor of 0.2.

  The LZCT factor is set to 0.1 for all buildings.

  The TER is derived from the NER as follows

  TER = NER x (1 – 0.408) x (1 - LZCT Factor)

- The BER is the Reference design building CO_2 emission rate, incorporating actual plant efficiencies, U-values & LZCTs

LZCGT	Modulating CHP engine. Duty set to match building base heat load. PV panels - 800m2 - could be located on Energy Centre roof (floor area 1000m2 approx)	
Glazing Type	Solar control glass on S & W facades (g=.45)	
U - Values	U-values improved beyond those set out in Section 6	
Building Air Tightness	7.5 (m3/h)/m2@ 50Pa	
Notional Building Emission Rate (NER) Section 6 -2010	**Target Emission Rate (TER) Section 6 -2010**	**Reference Design Envisaged Scheme : Building Emission Rate (BER)**
$Kg.CO_2/m^2$	$Kg.CO_2/m^2$	$Kg.CO_2/m^2$
52.8	**26.6**	**25.8**

The figures detailed above have been derived from IES VE 2010 Apache Sim method. It is however accepted, and should be noted, that the figures derived from a compliance simulation based on NCM templates using the SBEM & DSM methods are not equivalent to the buildings actual “in-operation” consumed energy. As such, despite proving that the building will be more energy efficient and emit less CO_2 than an equivalent notional building, the figures detailed in section 3.0 should not be used as a benchmark or a target figure for actual building CO_2 emissions or to derive energy consumption.

4.0 Conclusions. Compliance with Section 6 – Energy

A Simplified Building Energy Model (SBEM) calculation has been carried out for the Reference Design Stage Royal Hospital for Sick Children / Department for Clinical Neuroscience building using the envisaged approach.

It should be noted that the envisaged approach is not intended to be prescriptive and that alternative approaches where put forward beyond the Reference Design could also be valid provided the conditions of planning are not compromised and that Section 6 can be complied with and that client briefing can be complied with.

Results detailed in Section 3.0 indicate that for the envisaged Reference Design approach , by incorporating the following passive and active LZCGT measures the RHSC/DCN building can meet the CO_2 emission reduction requirements set out in Section 6 Energy of the 2010 Scottish Building Regulations;

- Use of modulating gas fired Combined Heat and Power (CHP) to meet the building base heat load demand.
- Use of 800m^2 of Photo-Voltaic (PV) panels – possibly located on the energy centre roof.
- Use of high efficiency building services plant.
- Heat Recovery to AHU plant, with a minimum efficiency of 60% relative to return air volume.
- Inverter Drives to AHU motors and Circulation Pumps (variable speed drives).
- Occupancy/presence detectors in conjunction with automatic lighting controls with high efficiency lighting.
- Improving the building envelope U-values beyond the requirements of Section 6 Energy.
- Improving the building air tightness, to 7.5 (m^3/h)/m^2 @ 50Pa.
- The introduction of solar control glass, with a g-value of 0.45, to facades which are subject to high solar gain
- Ventilation solutions as aligned to the RHSC-DCN Environmental Matrix

5.0 Concluding Remarks

The simulation results given in this report are based on the output of a complex, dynamic Energy model, which takes account of the following design criteria:

- Architect's drawings
- Weather data
- Simulation Software
- Internal Conditions
- Construction materials
- Space Conditioning system efficiency

Any output from the model is only as accurate as the input of the variables associated with the above criteria.

It is essential that all parties understand and accept the various criteria, as these 'drive' the performance of the simulation.

A bright new future: A project to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France

"Re-provision of RHSC and DCN at Little France"

INVITATION TO PARTICIPATE IN DIALOGUE

Volume 1

Revision B

Contract Notice Ref: 386758-2012 (2012/S 235-386758)

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Issue and Revision Record:

Version	Date	Description
A	11 March 2013	ITPD issue
B	17 April 2013	Amendments to 1.3.2, 2.5.1, 2.12, 3.8.14, Appendix A (ii) (D12.2) & Appendix E.

IMPORTANT NOTICE

The Invitation to Participate in Dialogue and any subsequent Invitation to Submit Final Tender (together the "**Invitation**") has been prepared for the purpose of providing certain information to Bidders invited to participate in the competition for the design, build, finance and maintenance of a project to enable the re-provision of services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France ("**the Project**").

In no circumstances shall the Board or their advisers, consultants, contractors, servants or agents incur any liability or responsibility arising out of or in respect of the issue of the Invitation.

Nothing in the Invitation shall be construed as legal, financial or tax advice.

Any summaries or descriptions of documents or contractual arrangements contained in any part of the Invitation cannot be and are not intended to be comprehensive, nor any substitute for the underlying documentation (whether existing or to be concluded in the future), and are in all respects qualified in their entirety by reference to them.

No legal relationship or other obligation shall arise between any Bidder and the Board unless and until the NPD Project Agreement has been formally executed in writing by the Board and the successful Bidder and any conditions precedent to its effectiveness have been fulfilled.

In this notice, references to the Invitation shall include all information contained herein and any other information (whether written, oral or in machine-readable form) or opinions made available by or on behalf of the Board, their advisers, consultants, contractors, servants or agents in connection with the Invitation or the Project including, without limitation, any additional information made available by the Board throughout the Dialogue Period.

Scots law shall be applicable to the Invitation and the Scottish Courts shall have exclusive jurisdiction.

Each Bidder's acceptance of delivery of the Invitation constitutes its agreement to, and acceptance of, the terms set forth in this Important Notice.

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1 INTRODUCTION

1.1 Purpose of Invitation to Participate in Dialogue

This Invitation to Participate in Dialogue (ITPD) is being issued to the three successful candidates (each of whom shall be a Bidder) shortlisted by the Board following completion of the Pre-Qualification Questionnaire initiated by the Office Journal of European Union (OJEU) notice *ref.386758-2012 (2012/S 235-386758)* published on 5 December 2012. The ITPD describes the Board's needs and requirements and sets out how Dialogue will be conducted.

1.2 Structure of the Invitation to Participate in Dialogue

The ITPD comprises four volumes of information as follows:

1.2.1 **Volume 1** contains background information on the Project, the conditions of participation, the arrangements for the Dialogue, the Informal Submissions that Bidders must provide during the Dialogue Period, Draft Final Tender requirements, envisaged Final Tender requirements and how the Board intends to evaluate the Final Tender, award the Project and communicate with Bidders.

1.2.2 **Volume 2** contains the contractual requirements which are set out in the NPD Project Agreement and schedules, (which include the draft Payment Mechanism) and Articles of Association.

1.2.3 **Volume 3** contains the specific technical requirements of the Board for the Project including construction (clinical and non-clinical) requirements and Facilities standards, equipping requirements and facilities management requirements.

1.2.4 **Volume 4** comprises of details of the Data Room available to Bidders during the Tender Period.

1.3 Definitions within Invitation to Participate in Dialogue

1.3.1 In terms of the interpretation of the ITPD, unless the context otherwise requires:

(a) The masculine includes the feminine and vice-versa;

(b) The singular includes the plural and vice versa;

(c) The words "include" and "including" shall be construed without limitation;

(d) Any reference to a person includes a reference to an individual, company, authority, board, association or other legal entity;

(e) Any reference to any directive, statute or statutory provision shall include any directive, statute, or statutory provision which amends or replaces or has amended, replaced consolidated or re-enacted it and shall include any subordinate legislation made under any directive or statute;

(f) Save as otherwise provided herein, any reference to a Volume shall be a reference to a Volume of the ITPD to; and

(g) Save as otherwise provided herein, any reference in this Volume 1 to a section shall be a reference to a section of this Volume 1.

1.3.2 The terms used in these instructions to Bidders shall, where the same have been defined in the NPD Project Agreement, bear the same meaning as in the NPD Project Agreement unless otherwise defined hereunder:

Additional Documentation Submission has the meaning given to it in Appendix C(i) of Volume 1 of the ITPD;

Ancillary Agreements means the Memorandum and the Articles of Association;

Annual Service Payment has the meaning given to it in the NPD Project Agreement;

Bidder means each of

- B3 *(herein referred to as Bidder A);*
- Integrated Health Solutions (Lothian) *(herein referred to as Bidder B); and*
- Mosaic *(herein referred to as Bidder C)*

and **Bidders** shall be construed accordingly;

Bioquarter Site has the meaning given to it in the NPD Project Agreement;

Board has the meaning given to it in the NPD Project Agreement;

Board's Construction Requirements has the meaning given to it in the NPD Project Agreement;

Board Services has the meaning given to it in the NPD Project Agreement;

Briefing Meeting has the meaning given to it in paragraph 4.4 (Briefing Meeting and Q and A Sessions) of Volume 1 of the ITPD;

CAMHS means the Child and Adolescent Mental Health Service currently provided from the Royal Edinburgh Hospital, Morningside Place, Edinburgh.

Campus Facilities has the meaning given to it in the NPD Project Agreement;

Campus Site has the meaning given to it in the NPD Project Agreement;

Certificate of Non-Collusion and Non-Canvassing means the certificate of that name set out in Appendix H of Volume 1 of the ITPD*;*

CEC means the City of Edinburgh Council;

City Development means the department of City Development within the City of Edinburgh Council;

Conject means the Conject information channel, formerly known as BIW, provided by Conject Ltd, a web based construction collaboration portal utilised on the project by the Board.

Conject User Manual means the user manual for Conject set out in Volume 4 of the ITPD;

Consort has the meaning given to it in the NPD Project Agreement;

Core Evaluation Team means the principal assessment body for procurement, for Pre-Qualification Questionnaire, Dialogue and evaluation of the Final Tender;

Data room means the secure electronic data storage room that will be provided via Conject;

DCN means the Department of Clinical Neurosciences currently provided from the Western General Hospital on Crewe Road South, Edinburgh;

Dialogue means the competitive dialogue conducted in accordance with the Regulations;

Dialogue Meeting means a meeting between the Board and a Bidder during the Dialogue Period;

Dialogue Period means the period between the date of issue of the ITPD and the date of issue of the notification from the Board that Dialogue has been concluded;

Dialogue Period Bulletin means a communication during the Dialogue Period of that name described in paragraph 4.11.2 (Communication Protocol) of Volume 1 of the ITPD;

Dialogue Period Query means a communication during the Dialogue Period of that name described in paragraph 4.11.2 (Communication Protocol) of Volume 1 of the ITPD;

Draft Final Tender means the submission made by a Bidder during the Dialogue Period in accordance with Appendices A, B and C of Volume 1 of the ITPD;

Draft Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ITPD;

Enabling Works has the meaning given to it in paragraph 2.7.5 (Enabling Works) of Volume 1 of the ITPD;

Economic Cost has the meaning defined in paragraph 5.7.1 (Economic Cost) of Volume 1 of the ITPD;

Energy Centre means a dedicated autonomous energy centre to be provided as part of the Project;

Expiry Date has the meaning given to it in the NPD Project Agreement;

Environmental Matrix means the matrix contained in ITPD Volume 3, Schedule Part 6, Section 3, Appendix C*;*

Equalisation Adjustment has the meaning described at paragraph 5.7.1 (c) (Economic Cost) of Volume 1 of the ITPD;

Equipment Schedule means the document named such in Volume 3 of the ITPD;

Equipment Responsibility Matrix means the document named such in Volume 3 of the ITPD;

Facilities has the meaning given to it in the NPD Project Agreement;

Family Hotel has the meaning given to it in Schedule Part 6, Section 3, Sub-section D (Specific Clinical Requirements);

FOISA has the meaning given to it in the NPD Project Agreement**;**

Full Business Case or FBC means full business case of the Board;

Financial Close has the meaning given to it in the NPD Project Agreement;

Financial Model means an electronic model used for the purposes of this procurement as produced by a Bidder in support of the Bidder's Financial Submission (or by the Board in the case of the Shadow Bid Financial Model), having the attributes defined at paragraph 3.9 of this document*;*

Financial Proformas means the contents of Annex 1 to Appendix B of Volume 1 of the ITPD;

Financial Submission means the elements of a Bidders proposals relating to financial issues as defined in Appendix B of Volume 1 of the ITPD and as relating to the Final Tender, Draft Final Tender and all other submissions required during the Dialogue Period;

Final Tender means a submission made by a Bidder in response to an Invitation to Submit Final Tender;

Final Tender Period means the period between the date of issue of the notification that Dialogue has been concluded and the date of the Final Tender;

Generic Rooms has the meaning given to it in paragraph 2.5.2 (Room Layouts) of Volume 1 of the ITPD;

GICs means guaranteed investment certificates

Group 1 Equipment has the meaning given to it in the NPD Project Agreement;

Group 2A Equipment has the meaning given to it in the NPD Project Agreement;

Group 2B Equipment has the meaning given to it in the NPD Project Agreement;

Group 3 Equipment has the meaning given to it in the NPD Project Agreement;

Gross Internal Floor Area means the area of a building measured to the internal face of the perimeter walls at each floor level. The rules of measurement of gross internal floor area are defined in the latest edition of the RICS Code of Measuring Practice;

Hard FM has the meaning given to it in paragraph 2.11 (Facilities Management: Services to be provided by Project Co) of Volume 1 of the ITPD;

Helpdesk has the meaning given to it in the Service Level Specification contained in Volume 3 of the ITPD. *;*

Indicative Elements of the Reference Design has the meaning given to it in paragraph 2.6 (Indicative Elements of the Reference Design) of Volume 1 of the ITPD;

Informal Submission has the meaning given in paragraph 4.2.3 (Timetable and Dialogue Meetings) of Volume 1 of the ITPD;

Information Provided means the information provided to the Bidders by the Board or its advisers during the Dialogue Period;

Interface Proposals has the meaning given to it in the NPD Project Agreement;

Invitation to Participate in Dialogue or ITPD means this document as more particularly described in paragraph 1.2.1 of Volume 1 of the ITPD as updated by the Board from time to time;

Invitation to Submit Final Tender or ISFT means the document(s) which may be issued by the Board to any shortlisted Bidders inviting them to submit their Final Tender;

IRR means internal rate of return;

Key Rooms has the meaning given to it in paragraph 2.5.2 (Rooms Layouts) of Volume 1 of the ITPD;

Key Stage Review the validation to be carried out by the Scottish Futures Trust on behalf of the Scottish Government at key stages of the procurement process;

Link Building has the meaning given to it in the NPD Project Agreement;

Mandatory Reference Design Requirements has the meaning given to it in paragraph 2.5 (Reference Design and Mandatory Reference Design Requirements) of Volume 1 of the ITPD;

Medical School means the University of Edinburgh Medical School, Chancellor's Building, 49 Little France Crescent, Edinburgh, EH16 4SB;

MLA means mandatory liquid assets;

NPD means non-profit distributing;

NPD Articles of Association means the mandatory articles of association of Project Co, which are prescribed by the SFT;

NPD Model means the non-profit distributing model ascribed by the Scottish Government which represents a development of the traditional PFI model;

NPD Project Agreement means the contract set out in draft form at Volume 2 of the ITPD as updated from time to time and issued to all Bidders who remain in Dialogue with the Board at the relevant time;

NPV means net present value;

OBC means Outline Business Case of the Board relating to the Project;

Operational Functionality means

(a) the following matters as shown on the 1:500 scale development control plan and site plans;

(i) the point of access to and within the Site and the Facilities;

(ii) the relationship between one or more buildings that comprise the Facilities; and

(iii) the adjacencies between different hospital departments within the Facilities,

as indicated in the Reference Design;

(b) the following matters as shown on the 1:200 scale plans:

(i) the points of access to and within the Site and the Facilities;

(ii) the relationship between one or more buildings that comprise the Facilities;

(iii) the adjacencies between different hospital departments within the Facilities; and

(iv) the adjacencies between rooms within the hospital departments within the Facilities,

as indicated in the Reference Design;

(c) the quantity, description and areas (in square metres) and minimum critical dimensions of those rooms and spaces shown on the Draft Schedule of Accommodation, excluding Project Co spaces;

(d) the location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal elevations; and

(e) the location of and the inter-relationships between rooms within the departments within the Facilities, as indicated in the Reference Design;

but only insofar as each of the matters listed in (a) to (e) above relate to or affect Operational Use (with the exception of Non-Clinical Services);

Operational Use means the use of a room or space to the extent that it is used by the Board or its employees, tenants, agents and/or contractors (but not to avoid doubt Project Co staff) for carrying out the Board Services;

Payment Mechanism has the meaning given to it in the NPD Project Agreement;

Non-Clinical Services has the meaning given to it in the NPD Project Agreement;

NPD Project Agreement Submission has the meaning given to it in Appendix C(i) of Volume 1 of the ITPD;

Plan 2 has the meaning given to it in the NPD Project Agreement;

Plan 4 has the meaning given to it in the NPD Project Agreement;

Planning Permission in Principle or PPiP means planning permission in principle granted to the Board by CEC in relation to the Site;

Preferred Bidder means the Bidder identified by the Board after evaluation of each of the Final Tenders with which the Board wishes to enter into the NPD Project Agreement;

Pre-Qualification Questionnaire means the document of that name issued on 5 December 2012;

Price Evaluation means the process set out in paragraph 5.7 (Price Evaluation) of Volume 1 of the ITPD;

Price Evaluation Mark has the meaning given to it in paragraph 5.7.2 (Price Evaluation Mark) of Volume 1 of the ITPD;

Project has the meaning given to it in the NPD Project Agreement;

Public Interest Director has the meaning given to it in paragraph 3.2.1(b) (Public Interest Director) of Volume 1 of the ITPD;

Quality Evaluation Mark has the meaning given to it in paragraph 5.6 (Quality Evaluation Criteria) of Volume 1 of the ITPD;

Query Proformas means the document provided within Appendix D of Volume 1 of the ITPD;

Reference Design means the preliminary designs prepared by the Board and their advisers and contained in the Data Room;

Reference Design Elements means the documents referred to within Appendix E of Volume 1 of the ITPD;

Reference Design Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ITPD

Regulations mean The Public Contracts (Scotland) Regulations 2012;

RIE Facilities has the meaning given to it in the NPD Project Agreement;

RIE Project Agreement has the meaning given to it in the NPD Project Agreement;

Royal Hospital for Sick Children and Department of Clinical Neurosciences means the premises and associated infrastructure proposed to be constructed as part of the Project and includes CAMHS;

RHSC means the Royal Hospital for Sick Children currently located at 9 Sciennes Road, Edinburgh EH9 1LF**;**

Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ITPD;

Schedule of Operational/Design Notes means document contained in Volume 4 of the ITPD (Data Room);

Service Strip has the meaning given to it in the NPD Project Agreement;

SFT means the Scottish Futures Trust;

SFTs Standard Form NPD Project Agreement means the form of project agreement issued by SFT on in June 2012, and as amended by SFT from time to time;

Site Survey means the survey of the Site to be procured by the Board and set out in paragraph 2.16 (Surveys and Dialogue Period Ground Investigations);

Soft FM Interface Specification means the specification contained in Volume 3 of the ITPD, Part 6, Section 3;

Solution means a solution developed by each Bidder in regard to the Project during the Dialogue Period;

Submission means either or all of the Informal Submission, Draft Final Tender and/or Final Tender where the context requires

Surplus has the meaning given to it in the NPD Project Agreement;

Technical Cost Proformas means the proformas included in Annex 1 to Appendix A of Volume 1 of the ITPD;

Tender Period means either the Dialogue Period or any Final Tender Period;

User Guide means the SFT user guide in relation to standard project agreements (hub DBFM and NPD Model); version 2 dated June 2012 as amended from time to time;

VAT means value added tax;

VFM means value for money;

VIE means vacuum insulated evaporator.

1.4 Overview of Project

The Project shall be to design, build, finance and maintain a new facility to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France

In accordance with the Scottish Government's NPD initiative, the Board is now seeking to procure through Dialogue a partner who will form a NPD company (the "**Project Co**") for the delivery of the Project.

The Project shall be based at the Campus Site. The Campus Site shall comprise the Retained Site (i.e. the site of the existing hospital and university buildings) and the Site (i.e. the site for the new Facilities) together with the Retained Estate (i.e. the existing hospital and university buildings) and the Facilities (i.e. the new hospital). The Retained Estate and Retained Site form part of an earlier PFI project entered into between the Board and Consort in 1998. Consort therefore operate (on behalf of the Board) the Retained Estate and the Retained Site.

The intention is that the Project shall construct standalone Facilities on the Site within the Campus Site at Little France as far as is practically possible. However, there shall be a physical link between the Facilities and the Retained Estate via a Link Building between the Facilities and the RIE Facilities at ground and first floor levels.

The Project will co-locate services currently provided at the RHSC located at Sciennes Road, Edinburgh, CAMHS at the Royal Edinburgh Hospital and DCN at the Western General Hospital, Edinburgh. Planning Permission in Principle has been received in respect of the Project.

This Project is regulated and governed by the Public Contracts (Scotland) Regulations 2012 and any contract awarded shall be to the Bidder who can offer the most economically advantageous tender in accordance with the Dialogue procedure.

1.5 Project Objectives and Drivers

1.5.1 The Board has developed a strategic clinical framework to underpin its approach to delivering Scotland's vision for sustainable, quality health care services and a healthier future for everyone.
The framework sets out the Board's principles for planning and delivering services and care in Lothian, and identifies how, through integrated working with partners and redesigning service around and with people, the Board will promote good health and deliver safer, more effective, person-centre healthcare.

The key principles are to:

- focus on prevention and early intervention to help people keep well and anticipate care needs;
- take a whole system approach to planning and managing integrated pathways of care, working with partner agencies in local authorities and voluntary sector;
- reduce unnecessary variation in the way patients are cared for;
- deliver services with the appropriate mix of staff skills, ensuring viable clinical staff rotas;
- reduce spend on property and buildings as hospital stays reduce, to release money for direct patient services;
- question active treatment which will not extend life or quality of life;
- identify services that are not sustainable in the longer term and proactively plan a new way of delivering care;
- make sure we stop procedures and treatments which add no clinical value; and
- maximise the opportunities for use of new technologies to support health and healthcare.

The framework focuses on six strategic aims:

1. prioritise prevention, reduce inequalities and promote longer healthier lives for all;
2. put in place robust systems to deliver the best model of integrated care for our population – across primary, secondary and social care;
3. ensure that care is evidence based, incorporates best practice and innovation, and achieves sustainable care pathways for patients;

4. design healthcare systems to reliably and efficiently deliver the right care at the right time in the most appropriate setting;
5. involve patients and carers as equal partners, enabling individuals to manage their own health and wellbeing and that of their families; and
6. use resources – skilled people, technology, buildings and equipment - efficiently and effectively.

1.5.2 The Board is committed to increasing social capital and addressing inequalities, deriving benefit for the communities, such as through proactive application of community benefits clauses in its procurement processes.

1.5.3 Specific factors driving the need for change in children's and young people's services and clinical neurosciences are:

(a) The age and limitations of the current premises;
(b) The increase in age range of patients to be seen in the facility, up to age 16 years old, or 18 in some specialities.
(c) The need to deliver sustainable specialist services whilst meeting the challenge of relatively small numbers of patients and small numbers of clinical experts;
(d) The national policy for Paediatric Intensive Care Units in Scotland, which have been commissioned under NHS National Services since 2007, sited in two hospitals for children and young people;
(e) The need to deliver neurosurgery on the same site as adult and children's emergency departments; and
(f) The need to maintain strong links with the University of Edinburgh's Division of Clinical Neuroscience and their planned Institute of Neuroscience at Little France.

1.5.4 Clinical benefits of integrating the services into one building, supporting the Board's and national strategic ambitions include:

(a) The ability to deliver paediatric and adult neurosurgery in the same theatre suite, maximising the utilisation of specialist equipment (e.g. intra-operative MRI) and expert staff, with direct internal access to age-appropriate critical care and wards;
(b) Mental health services on the same site as acute hospital services for children and young people, supporting their physical as well as psychological care;
(c) Joint-working and economies of scale in high-cost specialist clinical areas such as theatres and radiology; and
(d) The opportunity to improve emergency access to services by incorporating a helipad on the roof of the Facilities.

1.6 Project Governance

1.6.1 The terminology used to describe project governance arrangements is as defined by the "Scottish Capital Investment Manual Programme and Project Organisation Guide".

1.6.2 The Investment Decision-Maker is Lothian Health Board, which is ultimately accountable for the Project.

1.6.3 The Board's Finance and Resources Committee (F&RC) has established a Project Steering Board, chaired by the Project Owner, who is NHS Lothian's Director of Finance.

1.6.4 The F&RC routinely receives minutes of the Project Steering Board. The Project Owner shall provide assurance to the F&RC on key aspects of project governance and internal control, and progress reports on the delivery of key project milestones.

1.6.5 The Project Owner shall alert the F&RC in the event of any trend towards cost escalation or delay, or any radical changes to the objectives of the Project. The Project Owner shall make recommendations to the F&RC on action to take in these circumstances.

1.6.6 The Project Owner has the executive responsibility for decision-making relating to the project. All decisions must be consistent with Board strategies, policies and procedures and delegated budgets or in line with any agreed derogations.

1.6.7 The Project Director has responsibility for delivering the project within the governance parameters set out.

1.6.8 Project Steering Board remit shall be:

- To assist the Project Owner and Project Director in the decision-making process for issues relating to the Project;
- To support the Project Owner and Project Director in preparing submissions to the F&RC, to satisfy that Committee's assurance needs on governance and internal control and monitoring of key performance milestones;
- To serve as the Capital Management Group, with delegated authority to approve capital enabling works for the Project up to £250k, and will be the first place to review schemes higher than £250k; and
- To be the arbiter of matters arising from the implementation of the Project Design and the Strategic Delivery Programme.

1.6.9 Project Steering Board Membership:

- Project Owner (chair)
- Project Director
- Medical Director
- Non-executive member(s) of Lothian NHS Board
- A representative from the service
- Project Clinical Director
- Director of Capital Planning and Projects
- Associate Director of Finance
- Project Operational Lead
- Communications Manager
- A representative from the Lothian Partnership Forum
- A representative from the South-East & Tayside Regional Planning Group (SEAT)
- A representative from the Scottish Government
- A representative from the Scottish Futures Trust

1.6.10 The Project Owner, as chair of the Project Steering Board, shall decide whether a meeting should proceed in the event of absence of any members. The Project Owner may designate a member to chair a Project Steering Board meeting in their absence.
However if the Project Steering Board is considering any business in its capacity as a Capital Management Group then the quorum is the Project Owner plus one member of Lothian Health Board, or if the Project Owner is not present, two members of Lothian Health Board.

1.6.11 The Project Director is supported by a project team comprising clinical experts and experienced NHS managers from capital planning, service management, finance and communications. Staff representation is fully integrated into the project with a full-time Partnership member of the team.

1.6.12 The Board's team are supplemented by specialist expertise from external financial, legal and technical advisers.

1.6.13 A Project Management Executive supports the Project Director in the day to day running of the Project and reporting on progress to the Project Steering Board.

1.7 Programme

The following table sets out the key target milestones for the Project.

Task	Date
Issue Invitation To Participate In Dialogue	12/03/13
Briefing Meetings	w/c18/03/13
Board to propose draft Site Survey	22/03/13
Bidders to provide comments in relation to draft Site Survey	05/04/13
Dialogue Meeting 1	w/c 01/04/13
Dialogue Meeting 2	w/c 29/04/13
Dialogue Meeting 3	w/c 27/05/13
Dialogue Meeting 4	w/c 24/06/13
Dialogue Meeting 5	w/c 22/07/13
Draft Final Tender submission	26/08/13
Dialogue Meeting 6	w/c 23/09/13
Close dialogue	30/09/13
Invitation to Submit Final Tenders	11/10/13
Final Tender submission	11/11/13
Identify Preferred Bidder	13/01/14
Commercial and Financial Close	07/08/14
Construction commences	18/08/14
Completion date (target)	17/03/17
Hospital opening date	15/05/17

2 TECHNICAL OVERVIEW

2.1 Introduction

This section provides an overview of the technical requirements of the Project. In relation to all technical information provided by the Board, the Board reserves the right to amend all such information during the course of the Dialogue Period, including without limitation the Mandatory Reference Design Requirements, Board's Construction Requirements and Equipment provisions.

2.2 The Site

The planned location for the new Facilities is at Little France, in the south east of Edinburgh, home to the RIE Facilities and the University of Edinburgh Medical School and adjacent to the Edinburgh Bioquarter Site development.

The site is bounded on the north by the Medical School, on the east by the RIE Facilities, to the south by existing commercial and residential buildings on Old Dalkeith Road and to the west by the Queen's Medical Research Institute and the main entrance road serving the Campus Site at Little France.

Also to the west of the Campus Site is an area of rising ground which slopes up to Craigmillar Castle. The view from the south-east over the site to the castle, with Arthur's Seat in the distance, is considered by City of Edinburgh Council (CEC) to be an important view on the southern approach to the city. The Site of the new Facilities is wholly within the red line boundary set out in Plan 1.

2.2.1 The Royal Infirmary of Edinburgh

The RIE Facilities is a major acute teaching hospital and has more than 900 inpatient beds. As described above the RIE Facilities were procured under a PFI contract between the Board and Consort in 1998 and was opened in 2003.

It is home to Scotland's busiest maternity unit – some 6000 babies are born at the RIE Facilities' "Simpson Centre for Reproductive Health" each year – and to Scotland's busiest emergency department.

With a 24-hour emergency department, it provides a wide range of acute medical and surgical services for patients from across the Lothian region and specialist services for people throughout the south east of Scotland and beyond.

2.2.2 University of Edinburgh

The Chancellor's Building, adjoining the RIE Facilities, is part of the University of Edinburgh Medical School and houses teaching facilities, the medical library and research laboratories. It is currently home to the Multiple Sclerosis and Euan MacDonald Motor Neurone Disease research centres. The Chancellor's Building was constructed by Consort under the terms of the RIE Project Agreement.

The University opened its Queen's Medical Research Institute in 2005 which represented a major milestone in the history of biomedical research in Edinburgh. The Queen's Medical Research Institute houses over 600 researchers and aims to tackle a wide range of diseases at the most fundamental cellular level. Facilities include MRI and other modern imaging technologies and supporting infrastructure.

The University's Scottish Centre for Regenerative Medicine was opened in the Edinburgh Bioquarter Site in 2011. The Anne Rowling Building is the most recent addition to the University's facilities and lies between the Chancellor's Building and the site proposed for the new Facilities

2.3 Stand Alone Requirements

Subject to Clause 9 (Nature of Land Interests) including without limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement, Appendix A of the Board's Construction Requirements and/or the Interface Proposals all buildings, facilities, services and associated works required to deliver the Project shall be contained within the Facilities and/or the Site and shall not be reliant upon any other buildings, facilities or services on the Retained Facilities and/or Retained Site (the "**Stand Alone Requirements**"). For the avoidance of doubt the following dedicated and autonomous elements shall be provided on the Site as part of the Project;

(a) an Energy Centre;
(b) the FM goods service yard; and
(c) Hard FM spaces.

2.4 Design and construction elements

2.4.1 Overview

The specific requirements for the Facilities to be provided are set out in the Board's Construction Requirements. This comprises: -

- General Requirements;
- Specific Clinical Requirements; and
- Specific Non-Clinical Requirements.

The Board's Construction Requirements are set out in Section 3 of Volume 3 of the ITPD and will ultimately form Section 3 of Schedule Part 6 (Board's Construction Requirements) of the NPD Project Agreement.

Using the work undertaken to date, the Board is seeking innovative proposals to meet its requirements.

The focus must be on providing age appropriate Facilities in a safe, caring and healing environment. This includes suitable Facilities for babies and young children, an adolescent inpatients zone, and accommodation for the adult population of DCN.

Areas for children, young people and adults should have their own identity within the integrated Facilities. At all times, the ethos, environment and needs of these different specialist areas has been considered in planning departmental relationships and patient pathways and this must be maintained.

Effective delivery of clinical services relies on close adjacencies between related specialties and disciplines. The design brief specifies that routes between departments should minimise travel time and distances for patients and staff in order to maximise clinical safety and efficiency.

The design will incorporate clearly identifiable, friendly and secure children's entrances to their outpatient and ward areas. There will be a separate main entrance to the DCN facilities. Recreation space and public facilities outside the wards will also be segregated as far as is practical.

The Board welcomes and will encourage Bidders to bring innovation, and expertise from within the UK and/or overseas to develop their own design proposals but it should be noted that certain elements of the design as they relate to aspects of Operational Functionality are mandatory, as described below and in Appendix E (Reference Design Elements) of Volume 1 of the ITPD.

2.4.2 Facilities to be provided

Facilities required for the Project include:

(a) inpatient wards;
(b) day case facilities;
(c) outpatient clinics;
(d) emergency department;
(e) operating theatres;
(f) radiology and physiology departments;
(g) rehabilitation facilities;
(h) support department;
(i) roof top helipad; and
(j) dedicated energy centre and goods delivery yard.

2.5 Reference Design and Mandatory Reference Design Requirements

The use of Reference Design in NPD projects is being promoted by the SFT and the Scottish Government.

A Reference Design for the Project has been developed and comprises mandatory elements and indicative elements.

The mandatory elements of the Reference Design (the "**Mandatory Reference Design Requirements**" are those elements of the Reference Design relating to Operational Functionality. The definition used in the NPD Project Agreement is being applied to define the agreed Operational Functionality included in the Reference Design and is generally set out in the following constituents of the Reference Design:

- 1:500 Departmental Adjacency Layouts;
- 1:200 Departmental Layouts; and
- 1:50 Generic and Key Room Layouts.

Other areas of Operational Functionality are contained in other components within the Reference Design. Full details of the Mandatory Reference Design Requirements are set out in Appendix E (Reference Design Elements).

Bidders are required to develop design proposals which comply with the Mandatory Reference Design Requirements.

For the avoidance of doubt, the Board will not enter into any Dialogue on alternative solutions to the Mandatory Reference Design Requirements. Bidders' proposals must be developed to comply with these Mandatory Reference Design Requirements. Bidders will be fully responsible for all elements of the design and construction of the Facilities including being responsible for verifying and satisfying themselves that the Mandatory Reference Design Requirements can be designed, built, and operated to meet the Board's Construction Requirements.

Following completion of the Reference Design some further adjustments were developed by the Board. These are set out in the Schedule of Proposed Adjustments contained in Volume 4 of the ITPD. Bidders are expected to address these adjustments during the Dialogue Period and incorporate them with their Final Tender. Bidders are required to provide a full breakdown of all costs (capex and opex) relating to item U1 "RHSC Specialist Paediatric Biochemistry Laboratory" included in the schedule.

2.5.1 Schedule of Accommodation and Reference Design Schedule of Accommodation

A schedule of accommodation has been developed by the Board to meet their requirements (the "**Draft Schedule of Accommodation**"). While the Draft Schedule of Accommodation is not mandatory in itself, the areas set out within it are considered to be minimum areas. These minimum areas will only apply to elements which affect the Operational Functionality and Non-Clinical Services areas. Areas such as service spaces (including risers) and Hard FM spaces will be for the Bidders to determine since responsibility and risk for these non operational spaces will ultimately rest with Project Co.

A further schedule of accommodation is included as part of the Reference Design; this has been developed based on the room areas achieved, as drawn, in the Reference Design (the "**Reference Design Schedule of Accommodation**"). Bidders are required to meet the minimum floor areas specified in the Draft Schedule of Accommodation however the Reference Design Schedule of Accommodation contains rooms where the area is less than the minimum requirements set out in the Draft Schedule of Accommodation. If Bidders cannot achieve the minimum floor areas for these rooms then it is acceptable, subject to agreement with the Board, for the rooms to be provided at the size achieved in the Reference Design. For the avoidance of doubt this will only apply to those individual rooms and not rooms of the same type or designation. Bidders will be expected to develop a schedule of accommodation which will form part of their proposals (the "**Schedule of Accommodation**").

Circulation and communication space indicated in the Reference Design is also considered to be indicative but any corridor widths specified will be treated as minimum requirements. This is also outlined paragraph 5.10 (Corridor Widths and Heights) of the Board's Construction Requirements. Therefore minimum corridor widths set out in the Reference Design are considered to be Mandatory Reference Design Requirements.

Any courtyards and terrace spaces are to be treated as communications spaces. These should be indicated on the Schedule of Accommodation submitted by Bidders but excluded from the measure of Gross Internal Floor Area.

2.5.2 Room Layouts

The 1:50 layout drawings included in the Reference Design cover the generic and key rooms only. Generic rooms are those rooms that are replicated more than four times across the Facilities ("**Generic Room"**). Key rooms are those that have critical operational requirements which the Board has identified for more detailed consideration and development at this early stage ("**Key Room"**). These include major spaces in the emergency department, operating theatre, radiology and outpatients departments. There are:

- 1839 rooms in total;
- 222 are covered under 88 Key Room types; and
- 756 are covered by 31 Generic Room types.

The Reference Design is developed in full at 1:500 and 1:200 scales. At 1:50 scale, where individual room layouts are detailed, the coverage is 53% of the total number of rooms (equating to 43% of the net floor area).

During Dialogue Bidders will be required to develop 1:50 layout drawings for the rooms identified in the table below which will form part of their proposals.

Table: 1:50 Layout Drawings to provided by the Bidders		
Room Reference	**Room Designation**	**Department**
G - A1 - 028/029	Resuscitation Bay	Emergency Department
G - E1 - 001	The Pod/Multi-functional activity zone	Outpatient Area
G - D2 - 013	Lung Function Laboratory	Cardiology and Respiratory
1 - D6 - 053-4	Rehabilitation Rooms	Therapies
1 – J1 – 003	Body Viewing	Bereavement Suite
2 – R1 – 001-055	All	Clinical Management Suite
3 – H3 – 001	Workshop/Tutorial 3	Clinical Education Suite
3 – C1.1 – 042	Clean Utility	Medical In-patients
4 – H1 – 018	Molecular Biology Laboratory	Child Life and Health
4 – H1 – 027	Physiological Laboratory	Child Life and Health
4 – H1 – 016	Tissue Culture Store	Child Life and Health

The Preferred Bidder will be required to develop 1:50 layout drawings for all remaining rooms prior to Financial Close.

2.5.3 Room Data Sheets

Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the "**Room Information**") are detailed in a combination of the following documents:

- The Board's Construction Requirements;
- The Environmental Matrix;
- The Schedule of Operational/Design Notes;
- The Equipment Schedule;
- The Equipment Responsibility Matrix;
- The Draft Schedule of Accommodation; and
- The Operational Functionality elements of the Reference Design.

During Dialogue Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings have been prepared. For the avoidance of doubt this shall include all Key Rooms and Generic Rooms in addition to those rooms identified in the table at paragraph 2.5.2 above. The Room Data Sheets will form part of the Bidders proposals. The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close.

2.6 Indicative Elements of the Reference Design

During the preparation of the Mandatory Reference Design Requirements, other information has been generated both as a by-product of preparing the Reference Design itself and as a general Project requirement as follows:

(i) FM goods handling and distribution;
(ii) Structural engineering solutions;
(iii) Building services engineering solutions;
(iv) Servicing strategies and space allocations; and
(v) Hard FM solutions and space allocations.

This constitutes the "**Indicative Elements of the Reference Design**".

Such information is issued to the Bidders for "information only" so that they may understand the intent of the Reference Design. Bidders must however refer to the Board's Construction Requirements for the detailed requirements for all such Indicative Elements of the Reference Design for which they will ultimately carry the risk. Bidders are advised that the Board's Construction Requirements will always take precedence over the Reference Design for matters which do not define Operational Functionality. The full distinction between Mandatory Reference Design Requirements and Indicative Elements of the Reference Design are set out in Appendix E (Reference Design Elements).

2.7 Interface and Enabling Works

Introduction

The section is an overview of:

1. General background and information about the Works – see paragraph 2.7.1;

2. Works to be designed, constructed and replaced, repaired, renewed and maintained by Project Co as part of the Project. Sometimes these works are on the Site or on the RIE Site or Campus Site or even off the Campus Site – see paragraphs 2.7.2 and 2.7.3;

3. Works to be designed and constructed by Project Co as part of the Project but not intended to be replaced, repaired, renewed and maintained by Project Co – see paragraph 2.7.4;

4. Works which are being carried out by others and not intended to form part of the Project but are taking place at the Campus Site or off the Campus Site but which are nevertheless pertinent to the operations at the Campus Site as a whole – see paragraph 2.7.5;

2.7.1 General information relevant to the Works

The permanent and temporary Works and all construction operations for the Project should, save where expressly provided otherwise, generally be designed and constructed to enable them to be carried out and where appropriate replaced, repaired, renewed and maintained on and from within the Site.

The Site is part of the Campus Site and Project Co has to be aware of and plan and programme the Works having regard to the other activities and operations ongoing at the Campus Site.

At some points it may be necessary temporarily for Project Co to enter or have access across other parts of the Campus Site for construction activities and the Board has secured a number of rights for Project Co in respect of such other parts of the Campus Site.

As well as operations on the Site, Project Co will be entitled to use Car Park E for a site compound during the Construction Phase for the Works, subject to a number of restrictions on use as detailed

in Section 3 (Site Compound/Car Park E) of Appendix A of the Board's Construction Requirements and Clause 9 (Nature of Land Interests) including with limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement. Further, in the event any activities on the Site involve oversailing any part of the Retained Site and/or the Retained Facilities then Project Co will require to develop an Oversail Strategy as detailed in Section 4 (Oversail) of Appendix A of the Board's Construction Requirements.

Where any construction and/or replacement, repair, renewal or maintenance activities are permitted at the Campus Site but off the Site then these activities are restricted to and must be carried out in accordance with the rights secured for such activities which rights are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement and such rights are subject to a number of conditions being met which conditions are further detailed in Appendix A (Interface with Campus Site and/or Campus Facilities) of the Board's Construction Requirements. Further restrictions on conditions and other information governing design, construction and replacement, repair, renewal and maintenance activities are detailed in the Board's Construction Requirements and Services Requirements.

Please also refer to the Interface Proposals which require to be developed by Bidders during the Dialogue Period.

2.7.2 Links with RIE

(a) Link Building

As set out in paragraph 2.3 (Stand Alone Requirements) the new Facilities shall be delivered as a standalone new build. However, the Facilities will be physically linked to the RIE Facilities at ground and first floor levels. The part of the RIE Facilities to which the Facilities will be linked is called the Link Building.

The Link Building is being constructed as part of the key enabling works described in paragraph 2.7.5 (Enabling Works). Its construction is not intended to be part of the Project and it is intended to be completed prior to the Works commencing on Site. The Link Building shall ensure improved clinical functionality and service delivery, particularly between the emergency departments, operating theatres and critical care departments in the RIE Facilities and the Facilities. Project Co will be responsible for designing and constructing the Facilities to physically link to the RIE Facilities at the Link Building interface point as set out in Appendix B (Interface Output Specification) of the Board's Construction Requirements.

(b) RIE Works within the Campus Site but outside the Site boundary and maintained by Project Co

There shall also be building services links between the new Facilities and the RIE Facilities in respect of building services and other connections in terms of: -

- infrastructure associated with ICT;
- a pneumatic tube system (PTS);
- fire alarm system; and
- foul drainage connections.

A new PTS will be designed and built which will run from the Facilities to the pharmacy and laboratories within the RIE Facilities. An ICT system will be designed and built which will run from the Facilities to link to the Board's ICT equipment/systems within the RIE Facilities. The Board will

advise Project Co of the route for the PTS and ICT within the RIE Facilities. The Board will procure that Project Co will be given access to the RIE Facilities for the installation of the PTS and ICT and Project Co will be responsible for replacing, repairing, renewing and maintaining the PTS and ICT which have been installed as part of the Works. The Board will procure access for constructing, replacing, repairing, renewing and maintaining, PTS and ICT within the RIE Facilities, such rights of access are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement but are subject to design, construction and other information being provided to and approved by the Board and Consort about the PTS and ICT systems as detailed in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of Appendix A. For more information about these systems please also see sections Appendix A of the Board's Construction Requirements.

The fire system for the Facilities will have to be designed and constructed and replaced, repaired, renewed and maintained such that they will be connected to, communicate and operate with the fire system at RIE Facilities. It is envisaged that such connections and a control box will be proximate to or within the Link Building. The rights to make and replace, repair, renew and maintain such connections are subject to design, construction and other information being provided to and approved by the Board and Consort about the fire system for the Facilities as detailed in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see paragraph 4 of the Board's Construction Requirements.

(c) Service Strip / Foul Drainage

There may also be connections into some existing infrastructure for foul drainage. If Project Co requires to connect the foul drainage systems for the Facilities into the existing foul and surface water drainage systems for RIE Facilities then foul drainage systems must be designed and constructed by Project Co such that they may be connected to foul drainage systems only at the agreed connection points in the Initial Drainage Proposal or within the Foul Service Strip shown shaded yellow and hatched black on Plan 2A serving the RIE Facilities. The Board will procure that Project Co will be given access to specified places and connections points on the RIE Site. Project Co will be responsible for replacing, repairing, renewing and maintaining the foul drainage systems serving the Facilities and the connections. The Board will procure access for Project Co constructing, replacing, repairing, renewing and maintaining the foul drainage systems serving the Facilities and connections as are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement, but are subject to design, construction and other information being provided to and approved by the Board and Consort about the foul drainage systems serving the Facilities as detailed in Section 6 (Service Strip and foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see paragraphs 4, 6 and 8 of the Board's Construction Requirements and the Initial Drainage Proposal

A list of Interface Proposals from Bidders is required during Dialogue for those elements of the new Facility which may have to interface with the existing RIE Facilities and infrastructure serving RIE. These are detailed in Appendix A of the Board's Construction Requirements and summarised in Appendix C (iv) (Interface Proposals) of Volume 1 of the ITPD.

As regards design and construction of any electrical, gas and water connections there must all be independent services serving the Facilities and are not intended to connect into any such services serving RIE Facilities or the rest of the Campus Site and/or Campus Facilities. However wherever any such services have to be installed on the RIE Site, the locations for such services are restricted to certain areas, including the Service Strip which is shown shaded yellow and hatched black on Plan 2. Project Co will be responsible for design and construction and replacing, repairing, renewing and maintaining such services serving the Facilities. The Board will procure for Project Co access

for such rights of access for constructing replacing, repairing, renewing and maintaining such services as are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement but are subject to design, construction and other information being provided to and approved by the Board and Consort about the services as detailed in Section 6 (Service Strip and Foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix and for more information about these systems please also see paragraphs 4, 6 and 8 of the Board's Construction Requirements.

2.7.3 Other Works outside Campus Site

The Board has identified other works (the Off Site Works on the Bioquarter Site) which will be required to be carried out, by Project Co, outwith the Campus Site. This may include the provision of a dedicated Scottish Power Substation for the Project which may be located adjacent to Car Park F at the Campus Site in the area outlined in blue on Plan 4 although Project Co is invited to suggest alternative locations for any suitable power source outwith the Campus Site. If required, access to the Substation, if constructed adjacent to Car Park F detailed above, for construction and ongoing maintenance may be via the area shaded blue and hatched black on Plan 4. The cable route to the Facilities will be agreed with the Board and may enter the Site via the Service Strip (shown shaded yellow and hatched in black on Plan 2) and the cable route may not cross the RIE Site at any other point.

2.7.4 Retained Estate Handback Infrastructure

The Board has identified the following RIE Works which will be required to be carried out on the Campus Site but outwith the Site boundary. These works shall result in the Retained Estate Handback Infrastructure and shall be Works carried out by Project Co but upon completion will not be maintained by Project Co but by or on behalf of the Board by or on behalf of Consort. These Works include the design and construction of:

(a) Hospital Square Infrastructure;
(b) Cycle Path Infrastructure; and
(c) Drainage Infrastructure.

The Retained Estate Handback Infrastructure is more fully described in paragraph 4 of the Board's Construction Requirements.

2.7.5 Enabling Works

(a) RIE Enabling Works

The Board has identified the following enabling works (the "**RIE Enabling Works**") which will be required to be carried out on the Campus Site to meet planning requirements for the Project. These key enabling works will be carried out by or on behalf of the Board by or on behalf of Consort. These works are not intended to form part of the Project and it is intended they are completed or substantially completed prior to any part of the Works commencing on Site. The key enabling works are described here for information purposes only.

(i) Flood Protection Works: which means the enhancement of existing flood protection measures at the Campus Site;

(ii) Road Infrastructure Works: which means changes to the road and transport infrastructure at the Campus Site , including but not limited to the creation of a public transport terminus to the east of RIE Facilities, new bus stances and revision of existing car parking;

(iii) VIE Relocation Works: which means relocation of the existing VIE plant serving RIE Facilities to another location on the RIE Site. Separate VIE plant is required for the Facilities;

(iv) Link Building Works: which means the building which is to be part of RIE Facilities to which the new Facilities will be connected at ground and first floor levels described in paragraph 2.7.1(a) above;

(v) Service Diversion Works: which means the diversion of certain services such as electricity, water, gas, that serve RIE Facilities and are currently located on under or over the Site to positions outwith the Site to new positions within the RIE Site. However Project Co should note that not all redundant services are being removed and grubbing up of any diverted and redundant services will be the responsibility of Project Co as part of the Works. For the avoidance of doubt there shall be no diversion of the County sewer, the crèche's sewer and connection, the crèche's storm water sewer which it is believed run under the Site;

(vi) Sewer Diversion Works: which means the diversion of trunk sewers currently located in the Site to positions outwith the Site to new positions within the RIE Site;

(vii) Clinical Facilities: Reconfiguration/alteration of a number of clinical facilities within RIE Facilities; and

(viii) Way Finding: which means the installation of new comprehensive way-finding measures across the Campus at Little France (new signage and directional indicators as necessary).

(b) Flood Works

Off-Site Flood Protection Works – It is proposed to construct flood defence walls (approximately 1000mm high) to both sides of the Niddrie Burn in the Nether Craigour area upstream of the Old Dalkeith Road bridge to provide improved flood protection to the Campus Site. These works will be procured under a separate contract and do not form part of the Project.

2.8 BREEAM

Bidder's designs must achieve, as minimum, a "Very Good" BREEAM rating in line with the requirements for healthcare facilities as set out in the BREEAM Scheme Document for New Construction (SD5073) 2011. The designs must also achieve a minimum of 6 credits ("Excellent" rating) in accordance with the BREEAM Scheme Document for New Construction (SD5073) Section 6.0 ENE1.

2.9 Sustainable Design and Quality

Bidders are required to promote sustainable development by demonstrating an integrated approach to the social, environmental and economic well-being of the area served, now and for future generations. The Facilities will reflect the objectives of any local agenda strategy supported by the CEC and also satisfy the requirements of all health and social care guidance notes, as set out in Board's Construction Requirements associated with sustainability and environmental performance.

2.10 Community Benefits

The Board recognises the importance of sustaining the community and delivering against social considerations. As well as providing significant training and employment opportunities for the full Project Term, the Project also has the potential to drive significant initiatives relating to regeneration, sustainability and social benefits, aligning with the Board's strategic objectives.

Community Benefits clauses set out within Clause 73 (Community Benefits) of the NPD Project Agreement support this agenda. Provisions relevant to training and appropriate measures regarding supply chain contracts and engagement with small and medium sized enterprises and supported businesses are recognised as examples of the elements that may be taken into account.
Project Co will work in partnership with the Board and where appropriate, the Edinburgh Partnership and the agencies listed in paragraph 3.6 of Appendix I to deliver the Board's requirements in respect of both the Construction Phase and Operational Term of the Project.

Please refer to Appendix I and section B6 of Appendix A(ii) of Volume 1 of the ITPD which set out the Board's approach to social considerations/Community Benefits and how Bidder proposals in these areas will be taken into account.

2.11 Facilities Management - Services to be provided by Project Co

The interface of facilities management (FM) services provided across the Campus Site will be addressed through the Little France Campus Working Group.

Project Co will be required to provide the Services which shall be a proactive facilities management and lifecycle replacement service. The key elements of the Services shall include, but not be limited to:

- Contract management;
- Performance management and monitoring via a helpdesk facility;
- Programmed ,maintenance and unprogrammed maintenance work of the mechanical, electrical and building fabric components of the Facilities;
- Procurement and management of Utilities;
- Lifecycle replacement of the mechanical, electrical and building fabric components of the Facilities, including all floor coverings;
- Hard landscaping maintenance;
- External façade cleaning / window cleaning; and
- Periodic cleaning of vents, extractors and luminaires.

For the avoidance of doubt, Bidders should note that the following items are excluded from the Services and will be delivered by the Board (or third party providers):

- Portable Appliance Testing; and
- Redecoration of walls and ceilings.

The detailed requirements for above are set out in Volume 3 of the ITPD and will ultimately become Schedule Part 12 (Service Requirements) of the NPD Project Agreement.

2.12 Services to be provided by the Board

Delivery of all Clinical Services in the Facilities will be the responsibility of the Board.

It is anticipated that soft FM services will be provided by a combination of the Board and third party providers contracted with the Board. There will be a number of operational interfaces not only with the Board's team but also the FM staff working within the RIE Facilities and so Project Co shall be required to adopt a collaborative approach to interfaces so that hard and soft facilities services are provided by Project Co, the Board and the RIE FM team effectively and in adherence with Board policies. Key to the success of that relationship will be the quality of the team and clarity of the agreement between the parties.

To assist Bidders in developing their proposals and understanding the interfaces with the Board and third party providers, information on the Board's proposed delivery strategies has been provided within Schedule Part 6 (Board's Construction Requirements), section 3, Sub-section E (Specific Non-Clinical Requirements) of the NPD Project Agreement covering items such as but not limited to:

- Linen Services;
- Waste Management/ Disposal;
- Materials Management;
- Portering Services;
- Catering Services;
- Routine, Periodic and Specialist cleaning;
- Domestic Services; and
- Delivery Area.

In addition the Board will be responsible for the maintenance and lifecycle replacement of Equipment that the Board is responsible for as set out in paragraph 2.15 (Equipment) and the Board Services.

2.13 ICT

The Project includes the design, construction and maintenance of comprehensive and robust infrastructure (e.g. containment, cabling and node rooms) for the Facilities in accordance with the requirements of the Board's Construction Requirements.

The Board will install hardware (e.g. servers, PCs, printers, scanners), make the final connections (at the application and in computer rooms) and commission the operational system. Future management of the telephone system and IT helpdesk will not form part of Project Co's scope of the Services. Instead, the telephone system and switchboard will be managed by the Board. The IT helpdesk service will also be provided by the Board.

A responsibility matrix relating to the ICT installations is contained in the Board's Construction Requirements.

2.14 Retail opportunities

The provision of catering and retail services within the Facilities does not form part of the Project. Catering and retail services shall be provided by the Board and associated parties (such as voluntary and/ or charitable organisations). These will be part of the Board Services.

2.15 Equipment

2.15.1 Equipment documentation

The following documents are contained within Volume 3 of the ITPD, which outline the Board's requirements in relation to Equipment and associated responsibilities:

(a) Equipment Schedule which shows all Equipment (Group 1, Group 2A, Group 2B and Group 3) which will be installed or anticipated to be installed in the Facilities presented on a room by room basis; and

(b) Equipment Responsibility Matrix which shows for each different item of Equipment, the split of responsibilities between Project Co and the Board.

2.15.2 Groups of Equipment

Equipment included for the Project will include new equipment replacement, transfer and fit out of existing equipment, upgrade of existing equipment and new equipment included in developments.

(a) Group 1 Equipment

This is Equipment fixed to the building fabric (including fixed furniture e.g. cabinets, boards, blinds, brackets, shelves, TV brackets and illuminators) and/or attached to, or forming part of the building services (e.g. sanitary ware, sockets, outlets IT and medical, theatre lights, luminaries and pendants etc).

Project Co will generally be responsible for all Group 1 Equipment including specification, procurement, installation, maintenance and Lifecycle Replacement. However, the Board shall specify the details (both quantities and specification) for certain key items of Group 1 Equipment which are more clinical in nature (e.g. pendants in theatres and critical care).

The quantities specified for Group 1 Equipment in the Equipment Schedule are considered to be indicative by the Board. However, such quantities of Group 1 Equipment represent the minimum quantities acceptable to the Board. The exception to this are those items of Group 1 Equipment which the Board wish to specify – these are identified on the Equipment Schedule and will be considered to be mandatory.

(b) Group 2A Equipment

Project Co will only be responsible for the installation of Group 2A Equipment (and the installation of the replacement equipment at lifecycle intervals). The Board will be responsible for all other aspects of Group 2A Equipment (such as specification, procurement, maintenance and Lifecycle Replacement). Project Co will be responsible for designing Facilities which allow the Board to carry out their obligations in relation to Group 2A Equipment (including operation).

(c) Group 2B and Group 3 Equipment

The Board will be wholly responsible for all Group 2B and Group 3 Equipment including specification, procurement, installation, maintenance and Lifecycle Replacement. Project Co will not be responsible for any aspect of Group 2B or Group 3 Equipment however will be responsible for designing Facilities which allow the Board to carry out their obligations in relation to Group 2B and Group 3 Equipment (including operation).

Equipment included for the Project will include new Equipment replacement, transfer and fit out of existing equipment, upgrade of existing Equipment and new Equipment included in developments.

2.16 Surveys and Dialogue Period Ground Investigations

The ground investigation surveys which have been carried out to date are summarised in Volume 4 Data Room Contents. Warranties are not provided for these surveys.

The Board intends to procure a Site Survey which shall be made available to all Bidders. Bidders shall be invited to review and comment on a draft scope for the Site Survey. Bidders shall be required to submit their comments within the timescale set out in paragraph 1.7 (Programme) of Volume 1 of the ITPD. When the scope is agreed, the Board shall instruct the Site Survey, incorporating any agreed Bidder comments in accordance with paragraph 1.7 (Programme) of Volume 1 of the ITPD.

The Board shall not warrant this Site Survey. However, the Board shall procure that the party engaged to carry out the Site Survey provides a reliance letter to the Preferred Bidder in respect of the Site Survey.

2.17 Planning

An application for Planning Permission in Principle (PPiP) for the "erection of a Children's Hospital, including Department for Clinical Neurosciences (DCN) and ancillary facilities, helipad, associated enabling development including energy centre, Vacuum Insulated Evaporator (VIE), car parking, revised access and public transport arrangements, public realm works and landscaping, (car parking, access and public transport arrangements in detail)" at Edinburgh Royal Infirmary, 51 Little France Crescent, Edinburgh, EH16 4SA was submitted to the CEC on the 29th July 2011.

The application (Reference 11/02454/PPP) was approved by CEC on 5th April 2012, subject to a number of conditions, and the conclusion of a Section 75 legal agreement.

The application was supported by a suite of information including a Design and Access Statement, which included the principles of design, sustainability, scale and massing. The application was also accompanied by an Environmental Statement in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations2011.

A subsequent stand alone permission (Reference 12/00479/FUL) was granted by CEC on 4 June 2012, for development of revised public access and revised public transport arrangements, associated car park remodelling, public realm works and landscaping. This followed the conclusion of a separate Section 75 legal agreement.

Various background papers relating to the application for PPiP and the application for Planning Permission, including Section 75 legal agreements are available within the Data Room.

In order to efficiently manage the pre-application consultation process for the approval of the detailed scheme, the Board and their representatives will agree a schedule of meetings with CEC Planning and Building Standards at which Bidders will be required to present their proposals and discuss planning and related issues. Any such meetings will be coordinated by the Board and their representatives and will be attended by the Board's representatives as appropriate. The details for these meetings will be agreed with each of the Bidders early in the dialogue process. No direct contact should be made with the CEC Planning and Building Standards, unless first agreed with the Board.

Other stakeholders, including Historic Scotland, Scottish Natural Heritage and Architecture and Design Scotland, will also be invited to be involved in this pre-planning process, to assist the Board in reviewing and assessing the Submissions.

The Preferred Bidder, once appointed, will be responsible for obtaining approval of the detailed scheme, in compliance with the conditions of the PPiP. This will require approval of matters specified in conditions. This will be required prior to Financial Close. The Board expects Bidders to

have satisfied themselves before submitting their Solutions that their proposals will secure detailed planning consent.

2.18 Artwork

The integration of art into the architecture and landscape to enhance the hospital environment is an essential requirement of the design. The Board welcomes innovative proposals for interactive art and wayfinding throughout the Facilities. Project Co will appoint artists to work with the Board on developing an arts strategy for the Project. Project Co shall carefully consider the arts strategy for the Board, including artworks and artefacts from the existing buildings that have been identified for transfer, and outputs from the 2010-2014 charitably funded Artists in Residence Programme within the RHSC and CAMHS.

The Board will be responsible for approving the whole art content in the Project and Project Co shall engage the Board fully in this process before any art work is commissioned.

2.19 Family Hotel

The Family Hotel is to provide “home away from home” accommodation for the families of children receiving in patient care in hospital. This accommodation is free of charge to families at the point of delivery, and aims to provide a supportive environment, and enable the whole family to be able to spend time together and close to their sick child.

It will provide overnight accommodation for families as well as facilities for parents whose children are resident on the wards, as outlined in the Specific Clinical Requirements section K2 (Family Hotel).

2.20 Achieving Excellence Design Evaluation Toolkit (AEDET)

An initial AEDET assessment has been carried out on the Reference Design which can be found in the Data Room. During Dialogue it is the intention of the Board to carry out further AEDET assessments using the information provided by the Bidders. The AEDET assessment will be undertaken by the Board with the key project stakeholders. The AEDET reviews will not be evaluated but the outcome of the process will be passed back to the Bidders during the Dialogue prior to Dialogue Meeting five, purely as an informative tool to assist Bidders develop their proposals. Bidders are, however, reminded that their proposals shall ultimately be evaluated by the Board in accordance with paragraph 5 (Tender Evaluation and Contract Award Criteria) of Volume 1 of the ITPD.

3 COMMERCIAL OVERVIEW

3.1 Introduction

This section provides an overview of the commercial aspects of the Project.

3.2 NPD Structure

The Project will be delivered using the Scottish Government's NPD Model. The NPD Model was developed and introduced as an alternative to, and has since superseded, the traditional private finance initiative or "PFI" model in Scotland. It has been used in the education (schools) and health sectors. The NPD Model has been fine-tuned since it was first introduced and this section summarises the basic principles that will underpin the NPD Model as it will apply to the Project.

The NPD Model is defined by three core principles:

- Enhanced stakeholder involvement in the management of projects;
- No dividend bearing equity; and
- Capped private sector returns.

Projects funded using NPD Model principles will pay a fixed return to the holders of the junior or risk-bearing debt of the Project Co. All other distributions to equity (i.e. the holders of the shares and junior debt of the Project Co) will be prohibited. Surpluses arising after satisfying all precedent lines in the cash cascade, subject to any agreed buffer, will be payable to the Board as a rebate against unitary charge service payments. In this way, returns to investors are capped at the level bid during the procurement process.

Although contractors and funders are expected to earn a normal market rate of return as in any other form of privately-finance PPP deal, the NPD Model seeks to eliminate uncapped equity returns associated with the traditional PFI model and limit these returns to a reasonable rate set in competition.

3.2.1 Key features of the NPD Model:

These key features include:

(a) **Corporate structure**: The Board will contract with a special purpose vehicle (referred to in the NPD Project Agreement as "**Project Co**") which will be majority owned and controlled by the private sector investors. The Board will own a "golden share" in the Project Co which gives it certain controls over the corporate, governance and management structures within the Project Co. Project Co's articles of association must incorporate the mandatory NPD articles, produced by the SFT, that enshrine the fundamental principles of the NPD Model;

(b) **Public Interest Director:** One of the Project Co's directors will be nominated by the SFT and will bring an independent voice to Project Co's board and shall ensure a greater degree of transparency and accountability to stakeholders (the "**Public Interest Director**");

(c) **Refinancing:** Under the NPD Model the Public Interest Director has the right to instigate a refinancing on the same basis as the Board may instigate a refinancing under SoPC4 guidance;

(d) Capped Returns: This shall ensure that a "normal" level of investment return is made by the private sector and that these returns are transparent;

(e) Surpluses: Surpluses generated by Project Co shall be reinvested in the public sector; and

(f) Transparency: The public interest shall be represented in the governance of the NPD structure, which increases transparency and accountability and facilitates a more pro-active and stable partnership between public and private sector parties.

SFT has provided a suite of contractual documents, comprising a NPD Project Agreement and articles that will be adopted for use in this Project, appropriately amended for project and NHS-specific issues. These are included at Volume 2 of the ITPD.

Further information on the NPD Model is available from the SFT website: www.scottishfuturestrust.org.uk.

3.2.2 Benefits of NPD Model

The NPD Model retains the benefits of traditional PFI structures, such as:

(a) optimum risk allocation;
(b) whole-life costing;
(c) maximised design efficiencies;
(d) robust programming of lifecycle maintenance and facilities management;
(e) performance-based payments to the private sector;
(f) single point delivery system, reducing interface risk for the public sector client; and
(g) improved service provision.

Also produces additional benefits, as set out in paragraph 3.2.1 above.

3.3 Overview of NPD Project Agreement

The NPD Project Agreement reflects the SFT's Standard Form NPD Project Agreement, with additional project specific amendments which have been agreed by SFT. In terms of these project specific amendments, please refer to paragraph 3.6 (Project Specific Changes) below. The NPD Project Agreement and its schedules shall regulate the relationship between the Board and Project Co.

The Board expects Bidders to accept the positions within the NPD Project Agreement which reflect the SFT's Standard Form Project Agreement. However, the Board acknowledges that the project specific amendments to the NPD Project Agreement may be amendments worthy of discussion between the Board and Bidders. Bidders are requested to raise all comments (including all Sub-contractor comments and/or anticipated Senior Funder comments) in relation to the NPD Project Agreement prior to Dialogue Meeting 3 and, if accepted by the Board and SFT (pursuant to the derogations process), such comments may form part of the relevant Submissions.
The SFT's Standard Form NPD Project Agreement is derived from other standard documentation in use in PFI projects; in particular SoPC4 and the Scottish Standard Health PPP Contract, therefore its principles will be familiar to those actively involved in the PPP market.

3.4 General Approach in relation to NPD Project Agreement

The Preferred Bidder will be expected to enter into the NPD Project Agreement with the Board in the form of the draft NPD Project Agreement set out in Volume 2 of the ITPD with the exception of any agreed derogations sanctioned by the Board and SFT.

In terms of the Dialogue, all matters relating to the NPD Project Agreement should be raised by Bidders, their Sub-contractors and/or their potential Funders during the Dialogue Period. Depending on the approach to funding adopted for Final Tender, as set out in paragraph 3.8.6 (Due Diligence) an appropriate level of due diligence on behalf of Funders should be carried out during the Dialogue Period. Only matters in relation to fine tuning and clarification of the NPD Project Agreement shall be addressed once the Dialogue Period has closed. Other than fine tuning and clarification issues, any issues which are not raised during the Dialogue Period will not be considered by the Board after the Dialogue Period has closed.

The Board will also require the Direct Agreements to be substantially in the form set out in the draft NPD Project Agreement

To the extent that Bidders, their potential Funders, diligence teams and/or Sub-contractors have concerns about the terms of the draft NPD Project Agreement or any of the other key project documents including the Ancillary Agreements, these must be raised with the Board prior to the start of Dialogue Meeting 3.

3.5 Derogation Procedure

The Board has agreed with SFT the required project/sector specific changes to the SFT's Standard Form NPD Project Agreement prior to issue of the ITPD. Thereafter, any further changes proposed to the NPD Project Agreement by Bidders during the Dialogue Period will, if acceptable to the Board, require SFT's approval through a derogation procedure to be managed by the Board. The Board and SFT's expectation is that any such derogations will be minimal. The Board will engage with the SFT on project/sector specific changes throughout the Dialogue Period, and will aim to provide feedback to Bidders on proposed amendments as soon as possible. A final decision on all Bidders amendments to the NPD Project Agreement shall be reached between the Board and SFT, and communicated to the relevant Bidders, prior to close of the Dialogue Period.

3.6 Project Specific Changes to NPD Project Agreement

3.6.1 A number of project/sector specific amendments have been agreed with SFT and are set out in the NPD Project Agreement.

The key project specific amendments include:

a) **Lifecycle** Additional lifecycle drafting has been added at Clause 23A (Lifecycle Replacement) of the NPD Project Agreement to provide the Board with greater visibility in terms of lifecycle replacement.

b) **TUPE** The Board does not envisage that the Transfer of Undertaking (Protection of Employment) Regulations 2006 (TUPE) will apply to the Project or to any current Board staff. SFT's alternative drafting set out in Form 2 of Appendix 2 of the User Guide has therefore been added at Clause 25 (No Employee Transfer) of the NPD Project Agreement. In addition, Clause 26 (Pensions) of the NPD

Project Agreement has been deleted.

c) **Board's right to stop Project Operations** — In terms of Clause 13A, a new clause has been added permitting the Board to instruct Project Co to stop performing the Project Operations in the event of a (i) Stop Incident; (ii) potential impact upon Clinical Services, and/or (iii) the occurrence of a Major Incident. In terms of (ii) and (iii) a Compensation Event shall be available to Project Co if the Board instructs stopping the Project Operations on one of these grounds. In terms of (i), the consequences of this Board instruction shall be treated in a similar way to Clause 13 in relation to opening up of the Works.

d) **Indemnities** — Additional limbs of the indemnity have been added in relation to breach of the Interface Proposals and/or breach of Appendix A of the Board's Construction Requirements and a breach of certain Reserved Rights. These are project specific requirements of the Board and primarily relate to Site issues which may have a wider impact upon the operation of the Campus Site.

e) **Insurance** — The Board has undertaken a review of the insurable and uninsurable risks that may emanate from the Project. The insurance provisions and minimum requirements have been set out in Clause 53 (Insurance) and Schedule Part 15 (Insurance Requirements) of the NPD Project. In addition, waiver of subrogation option has been added at Clause 53.6 (Subrogation and Vitiation) of the NPD Project Agreement. Bidders shall be required to price this option as part of its Draft Final Tender and Final Tender as indicated in Financial Proformas 1a and 4.

f) **Community Benefits** — SFT's drafting set out in Form 5 (Community Benefits) of the User Guide has been added at Clause 73 (Community Benefits) of the NPD Project Agreement (see 2.10, Appendix I and section B6 of Appendix A(ii) for further detail on how the Board is taking social considerations/Community Benefits into account in this procurement.

g) **Interface** — (i) *Interface*: Appendix A of the Board's Construction Requirements sets out the specific interface issues between the Facilities and the Retained Estate. Appendix A of the Board's Construction Requirements also requires Bidders to prepare certain Interface Proposals to address these specific interface issues.

(ii) *Interface Proposals*: The Interface Proposals shall include Bidder's proposals relating to construction access, operational access, oversail strategy, access areas strategy, drainage and substation proposals, service strip and foul service strip proposals and connection to the Link Building proposals. These Interface Proposals shall form part of Bidders Submissions and shall also form part of both the Draft Final Tender and Final Tender. The requirements for the Interface Proposals are more fully described in Appendix A of the Board's Construction Requirements, but shall be subject to conditions set out in Schedule Part 5 (Land Matters) of the NPD Project Agreement. However, for ease of reference, a list of Interface Proposals has been set out in Appendix C (iv) (Interface Proposals) of Volume 1 of the ITPD.

(iii) Little France Campus Working Group: The Board has established a Little France Campus Working Group in which Project Co will be required participate in. The purpose of this group is to support all parties on the Campus Site in order that they can work in partnership to deliver their responsibilities under Health and Safety legislation and the Construction (Design and Management) Regulations 2007 to ensure the safety of patients, staff and visitors and the operation of services on the Campus Site.

h) **Payment Mechanism** The NPD Project Agreement schedule has been amended to reflect the acute healthcare nature of the accommodation and incorporates the use of sessions as opposed to days as an element of the deduction formula for unavailability, in addition to the application of a gearing mechanism to the derivation of Service Unit values.

3.7 Articles of Association

Project Co will be a private company limited by shares with the Articles of Association contained in Volume 2 of the ITPD which sets out the mandatory NPD provisions including membership of Project Co, the rights of the members, voting rights and controls on how revenue is to be used.

3.8 Financial Aspects of the Project

In this Section, the ITPD sets out the following:

(a) key financial aspects of the Project that the Board considers to be of fundamental importance;
(b) financial assumptions to be made by bidders;
(c) submission requirements at each stage; and
(d) the process by which financial evaluation of Final Tenders will take place.

3.8.1 Affordability

The Board has developed a shadow bid Financial Model that produces an Annual Service Payment as derived from technical cost inputs that reflect the Reference Design and a set of assumptions

that reflects current economic factors and funding market conditions. This model has been used to ensure that the Project is affordable to the Board.

The Board will be responsible for meeting the proportion of the Annual Service Payment related to Hard Facilities Management (Hard FM) services and 50% of the lifecycle maintenance expenditure. The Scottish Government will meet the remaining proportion of the Annual Service Payment via revenue support.

Bidders should note that Scottish Government revenue support for a proportion of the Annual Service Payment is capped in relation to the construction cost of the Project. The construction cost cap will include all construction related costs, including design fees. It has been set at an uninflated amount of £137,757,000 (based on a 3Q 2011 base date) plus an inflation allowance calculated by reference to the BCIS All-in Tender Price Index from the base date of 3Q 2011 to the index forecast at the assumed construction mid-point of 4Q 2015. The indices at 18 February 2013 are 3Q2011 (final) 220 and 4Q 2015 (forecast) 237 giving a current inflation allowance of £10,645,000 and a total current construction cap of £148,402,000. All figures are net of VAT.

The construction cap supported by the Scottish Government will be adjusted during the Dialogue Period to reflect changes in BCIS All-in Tender Price Index for the forecast of the index at 4Q 2015 and bidders are expected to monitor movements in the index for the purposes of formulating their proposals. The Board will advise bidders in the ISFT of the level of Scottish Government's cap as at that date based on the most recently published BCIS Index forecast and it will be fixed at that date. In the shadow bid Financial Model, the Board has assumed Hard FM and Life Cycle Costs of £29 per m2 and £27 per m2 respectively, at current prices.

The Board will be responsible for meeting other costs such as soft facilities management services, utility costs and rates.

The Board reserves the right to set aside any Bid that exceeds the construction cap, except where the Board has specifically agreed that a higher construction cost is acceptable.

3.8.2 Value for Money

It is essential that the Board can demonstrate that the Project remains value for money throughout the procurement process. Provision of revenue support by the Scottish Government will be dependent upon the Board being able to demonstrate to the SFT and Scottish Government that Bidder proposals are based on costs that are competitive and represent value for money.
The Board is also required to submit a Full Business Case to the Scottish Government prior to Financial Close. This needs to clearly demonstrate that the Project will deliver value for money and will be affordable to the Board over the duration of the contract. The Full Business Case requires to be approved by the Scottish Government to allow the Project to proceed.

3.8.3 Funding Approach

Due to the current volatility of the funding market, the Board has devised an approach to the funding elements of Bidders' solutions that provides for the flexibility required to allow Bidders to respond to developments in the market as Dialogue progresses. This approach is set out below.

Submissions Prior to Final Tender

It is the Board's intention to devise and issue a standard term sheet containing funding terms relevant in the current funding market that Bidders should use in developing the financial elements of the Draft Final Tender and any relevant financial submissions required during the Dialogue

Period. This standard term sheet will be issued no later than three weeks before any relevant submission date.

Final Tender Stage

At the Final Tender stage the Board reserves the right to request either:

a) A **Fully Funded Solution** that covers the full duration of the NPD Project Agreement. In this option, it would be the Bidder's responsibility to identify and propose a form of funding for the Project that is both deliverable and offers the best possible Value for Money to the Board. Should Bidders consider that this is not achievable this must be discussed during Dialogue. In preparing Final Tenders on this basis, Bidders should clearly demonstrate to the Board that a competitive process has been undertaken in order to identify the preferred funder and/or chosen funding route, and that funder due diligence has been completed. The pricing developed will be evaluated to determine whether a funding competition will be required at Preferred Bidder stage; or

b) A solution based on a **Standard Term Sheet** to be issued by the Board should this prove to be preferable based on prevailing market conditions at that time. Should this option be pursued Bidders would be required in any case to have engaged diligence teams on behalf of potential funders, whose reports would be included within the Final Tender submissions. Once a Preferred Bidder is appointed a funding competition would be carried out to identify the preferred funding solution.

The Board will inform Bidders of the preferred option at the earliest possible opportunity during Dialogue.

Bidders should note that as a condition of Scottish Government support for the project the Board reserves the right to instruct a funding competition at any point during the procurement.

Bidders are also reminded that the Scottish Government reserves the right to consider alternative funding, financing and / or contractual arrangements to support the delivery of the project. The Board will provide updates to Bidders during dialogue should any such alternatives emerge.

3.8.4 Funder Commitment and Exclusivity

Bidders are required to demonstrate the strongest possible evidence of funder support for the proposals contained in the Final Tender. The Final Tender should include the provision of term sheets and letters of support as necessary and as specified in Appendix B. A clear statement on the level of internal approval that the project has received from the respective lending organisations should be made. In addition the details of any further approvals that would be required prior to Financial Close should be fully disclosed.
The Board requires that Bidders do not appoint funders on an exclusive basis during the Dialogue Period. During the Dialogue Period, Bidders will be required to confirm that no exclusivity arrangements have been signed with their potential funders. Failure to adhere to this requirement may result in the down-selection of that Bidder. Advice as to exclusivity in the Final Tender period will be provided during the Dialogue Period.

3.8.5 European Investment Bank Involvement

Bidders should note that initial discussions have taken place with the European Investment Bank (EIB) regarding their potential involvement in the Project. The potential involvement of EIB will be discussed with Bidders during the Dialogue Period.

3.8.6 Due Diligence

By Final Tender, Bidders are required to demonstrate that a detailed due diligence over their submission has been carried out on behalf of Funders or potential Funders. At that stage the Board will require assurances that the Funders have been involved in the due diligence process and fully support the submission.
Bidders are encouraged to progress their due diligence at the earliest opportunity.

3.8.7 Surpluses

In developing the Project the Board has assumed no prescribed levels of Surpluses are required to be paid during the concession period. Bidders should assume that any and all Surpluses that are generated will be paid to the Board as a rebate against the Annual Service Payment.
Any Surpluses produced by a Bidder's Financial Model will be included in the evaluation of price by applying 7% nominal discount rate in calculating the NPV of such Surpluses. Bidders should note that this discount rate is higher than that which will be used to evaluate the Annual Service Payment (6.09%). This approach reflects the Board's preference for a lower and certain Annual Service Payment as opposed to an equivalent and less certain Surplus.
Any Surpluses forecast in Bidders' Financial Models should reflect the level of cash buffer that has been bid (see below) and the full impact of the funding terms being used for Final Tenders, as these will affect the likelihood and timing of Surplus Payments actually being made to the Board.
Evaluation strategies should allow for risk adjustment of forecast Surpluses where appropriate.

3.8.8 Cash Buffer

Bidders may retain a cash buffer (over and above Funders' reserves and covenants) in their Financial Models in order to deal with unexpected events that arise during the Project. Surpluses are required to be paid out only to the extent that these exceed the cash buffer. The cash buffer should be set at a level that is no higher than two months' worth of the indexing element of the monthly Annual Service Payment. The cash buffer itself should index. Bidders are free to propose a lower level of cash buffer, as this will allow an earlier release of surpluses which will be evaluated more favourably through the NPV calculation described above.

Bidders' Financial Submissions should clearly identify Surpluses available for distribution to the Board. Such Surpluses should be defined as:

(a) any Surpluses bid and included in the Financial Model over the operational period, including the period post repayment of debt;

(b) positive cash balances forecast in the Financial Model at the Expiry Date;

(c) any Debt Service Reserve Account (DSRA) or Maintenance Reserve Account (MRA) balance released on repayment of debt (if not used to retire debt).

Payments of Surpluses to the Board should be assumed to take place on the last day of the relevant accounting period applicable.

3.8.9 Interest Rate Risk

The Scottish Government will take the risk of changes in the reference interest rate (e.g., the underlying London Interbank Borrowing Rate (LIBOR) rate) up to Financial Close subject to approval and conditions of the FBC.

3.8.10 Foreign Exchange Risk

The Board will not accept any foreign exchange risk. Such risks should be absorbed entirely by Bidders.

3.8.11 Third party income

The Board does not anticipate that any third party income will be available within the Project and none should be assumed within Financial Submissions.

3.8.12 Capital and charitable contributions

The Board does not intend to inject any capital contributions into the project at this time. However, The Board wishes to reserve the right to make such an injection should this prove practical and desirable at a later point in the Dialogue Period.

It is likely, however, that charities associated with the Board will wish to make a charitable contribution to the Project. This may take a number of forms:

(a) A contribution in the form a lump sum payment to cover the cost of construction of specific areas within the building that the charity wishes to support, such as the Family Hotel. For the avoidance of doubt, such areas are already included within the Service Level Specification and Reference Design and will form part of the new Facilities and Services whether or not a charitable contribution is made.

(b) A donation that will allow the specification of certain areas in the new Facilities to be enhanced over and above the level of Board's requirements currently contained within Volume 3 of the ITPD. Should such a donation be forthcoming, the Board would seek to amend the Board's requirements as required.

(c) A donation that funds the purchase of specific assets such as equipment or artwork.

At present, the size and nature of such contributions is not known. Where the value and timings of such contributions has an impact upon the level of borrowing that Bidders will require at Financial Close, the Board is to provide a firm commitment of the injection of these contributions to all Bidders prior to close of Dialogue so that Final Tenders and Financial Models can be prepared on the correct basis.

3.8.13 Indexation

The Annual Service Payment will be indexed on an annual basis. The Payment Mechanism contains the formula for applying the inflation adjustment. Bidders should note that the affordability assessment assumes that approximately 20% of Annual Service Payment payments are subject to indexation in line with the cost inputs used in the shadow bid Financial Model.

The Board does not expect that a Bidder's funding solution will require the use of RPI hedging instruments. Any relevant financial submissions should clearly demonstrate the proportion of costs that are fixed and the proportion subject to inflation. Bidders should set a rate of Annual Service Payment indexation that creates a natural hedge position given their cost structure. Bidders are required to develop their proposals on the basis of the use this natural hedge and to provide inflation sensitivities that demonstrate this as set out in the Financial Proformas contained in Annex 1 to Appendix B.

3.8.14 Validity of Submission

Bidders are required to price their Submissions anticipating a Financial Close of 7 August 2014.
Bidders are required to maintain underlying construction, operating, FM and Project Co's costs for a period of three months from the target Financial Close date with no adjustment for inflation, meaning that should Financial Close be reached prior to 7 Nov 2014, the bid price will not be adjusted for the effects of inflation.
Bidders are also obliged to use all reasonable endeavours to mitigate the impact of any cost increases post validity period.
Bidders must specify which cost index or indices they require costs to be inflated in the post validity period.

3.8.15 Pass Through Costs

The Board will retain price risk associated with the defined pass through costs, those being insurance, rates and utility costs, as set out in the NPD Project Agreement. However, Bidders should note that the Board will review such costs in each Bidder's solution and allow for these in the Equalisation Adjustment (see below) as part of the Price Evaluation process. Financial Pro-forma 1a should be used to set out the pass-through costs proposed by the Bidder.

3.8.16 Accounting and Tax Treatments

Bidders are required to satisfy themselves generally as to their own tax position under existing tax legislation, including any issues surrounding IFRS, the application of any capital allowances and revenue relief against corporation tax and the treatment of Surplus payments. All assumptions in respect of tax and accounting should be set out clearly in the Financial Model.
Bidders will be required to demonstrate within their Submissions that the most beneficial treatments have been adopted and that the Board has received the full benefit thereof by way of reduced Annual Service Payment. It is anticipated that a composite trade tax treatment will produce the lowest Annual Service Payment and, based upon this assumption, the NPD Project Agreement will be drafted accordingly. If Bidders can demonstrate a more beneficial tax and accounting treatment they should advise what changes would be required to the NPD Project Agreement to accommodate the alternative approach.

3.9 Financial Model

3.9.1 Key assumptions

Bidders are requested to note the following assumptions within their Financial Models, in addition to those noted in Section 3.8 above:

(a) For the purposes of their Submission, Bidders will be provided with a LIBOR swap rate assumption no later than three weeks before the submission date of any relevant

Submissions. Should a Bidder elect to provide a capital market solution, the Board will provide an appropriate reference rate on the same timescale.

(b) RPI should be assumed as 2.5%.

(c) The Financial Model should be prepared in accordance with UK GAAP or IFRS.

(d) The date of Financial Close should be assumed to be 7 August 2014.

(e) The Financial Model should cover an operational period of twenty-five (25) years plus the construction period, with each year end assumed to be 31 March.

(f) The discount rate to be used in calculating all NPV figures should be 3.5% real and 6.0875% nominal.

(g) All costs in the Financial Model should assume a price base date as at Financial Close with a first indexation point of the 1 April subsequent to Financial Close.

(h) The Bidders NPV calculation should discount cash flows back to the base date as at Financial Close.

(i) Annual Service Payment payments should assume 100% performance.

(j) Cash flows should be assumed to occur at the midpoint of each semi-annual period.

(k) Surpluses are as defined in Section 3.8.6 and should be treated as indicated.

(l) Public Interest Director fees are to be included in the financial submission of £15,000 per annum, subject to indexation.

(m) Construction insurance costs are to be included within the Financial Model.

(n) Pass-through costs (operational insurance costs, utilities costs and rates) are to be excluded from the Financial Model but should be shown separately within the Bidder's Financial Submission in Financial Proforma 1a. In the case of energy costs, Bidders should use the input unit price assumptions provided in the Proforma to generate the pass through cost, based on the projected energy usage inherent in the Bidder's proposals. All such pass-through costs will be evaluated as part of the Equalisation Adjustment.

(o) All assets will revert to the Board on expiry for nil consideration.

(p) No third party income should be included in the Financial Model.

(q) No capital contributions should be assumed unless otherwise informed.

3.9.2 Financial model format

Bidders must submit financial projections for each year of the NPD Project Agreement in the form of a computer Financial Model, which will become the Financial Model as defined in the Draft NPD Project Agreement.

The Financial Model must adhere to the following requirements:

(a) The Financial Model must be prepared using Microsoft Excel (2003 or later);

(b) The Financial Model should be free of error, including circular references or hard-coded values in non-input areas;

(c) The Financial Model should be transparent, with the logic of all calculations capable of being followed through the model, with no hidden macros or password protected areas;

(d) Financial projections should be presented on a monthly basis during the construction period and on a semi annual basis during operations (for each period ending 30 September and 31 March);

(e) All values should be expressed in £ sterling and to £'000's;

(f) The Financial Model should identify input capital expenditure and operating costs which should be referenced to costs in the Technical Cost Proformas as required under Annex 1 to Appendix A and Financial Proformas as required under Annex 1 to Appendix B;

(g) The Financial Model should incorporate all of the Financial Proformas provided at Annex 1 to Appendix B, linked to worksheets in the Bidder's Financial Model so that the Proforma contents update automatically and can be reconciled to worksheets in which model calculations are performed;

(h) The Financial Model should be capable running sensitivities in all the key areas of risk that funders are likely to focus on. As a minimum this should include the following:

(i) Delay to Financial Close;
(ii) Capital cost increases;
(iii) Construction programme delays;
(iv) Operational cost increases;
(v) Lifecycle cost increases;
(vi) Insurance cost increases;
(vii) Interest rate changes;
(viii) Inflation rate changes;
(ix) Corporation tax and VAT rate changes; and
(x) Deductions relating to the Payment Mechanism.

It is assumed that the Financial Model will be independently verified by the Bidder/Senior Funder as part of the process leading to Financial Close. Bidders are required to accept the risk that the model audit may prove the Annual Service Payment to be incorrect, and that they may not pass any additional costs on to the Board.

The Board will require sight of the Financial Model auditor's opinion letter that Bidder will obtain prior to Financial Close. For the avoidance of doubt the Board does not require a duty of care from the model auditors.

Bidders must submit three (3) CD copies of the Financial Model. The disks must be free of viruses. The Financial Model must include a print option macro.

During the Dialogue and evaluation phase, the Board may request Bidders to run key sensitivities and provide the results to the Board for analysis. Bidders' Financial Models must have the necessary functionality in order to undertake these sensitivities.

3.9.3 Model Databook

The Bidder is required to provide a databook and user guide supporting the Financial Model for any relevant Submission. The databook should include the following details as a minimum:

- Summary of the content of the Financial Model, on a sheet by sheet basis;
- A table of location of inputs to the Financial Model with the cell/sheet reference and source;
- Copies of source documents (e.g. construction cashflow);
- An explanation of the methodology used to generate the financial projections;
- A definition of how the financial ratios are calculated, (which must be consistent with the Funders' term sheets), and that the underlying values are confirmed as acceptable to funders in their support letter;
- Details of the mechanisms contained in the Financial Model and an explanation of how key tasks in the Financial Model are carried out;
- A statement of the accounting policies applied to the Financial Model and their compliance with the relevant accounting standards; and
- A detailed statement of the assumptions used in relation to tax.

3.10 Insurance

3.10.1 The Board has undertaken a review of the insurable and uninsurable risks that may emanate from the Project. Insurance provisions and minimum requirements have been set out in the NPD Project Agreement (at Clause 53 (Insurance), Schedule Part 15 (Insurance Requirements)) and Schedule Part 25 (Insurance Proceeds Account Agreement) in accordance with NHS Board requirements relative to NPD Projects in Scotland.

3.10.2 Insurances required under the Project will be reviewed and may be revised by the Board in line with Board strategy towards treatment of insurable risks in the Project, Project technical solutions and commercial considerations.

3.10.3 A waiver of subrogation option has been added at Clause 53.6 (Subrogation and Vitiation) of the NPD Project Agreement. Bidders are asked to identify separately the costs associated with this waiver in Part C (Waiver of subrogation for Consort and Consort Parties) of Appendix G (Insurance Response Matrix) of Volume 1 of the ITPD.

3.10.4 It is envisaged that the insurance provisions will be fully agreed and the insurance costs breakdown fixed prior to the close of Dialogue.

Insurance Response Requirements

3.10.5 For the purposes of demonstrating compliance with the Board's requirements, and to assist in evaluation, Bidders are required to provide completed versions of the insurance matrices set out in Part 1 (Insurance Cost Matrix) and Part 2 (Insurance Technical Matrix) of Appendix G (Insurance Response Matrix) of Volume1 of the ITPD, clearly identifying where:

(i) there will be full compliance with the Board's insurance requirements; and

(ii) the Bidder proposes alternative solutions to satisfy the Board's requirements and the rationale for these.

3.10.6 Bidders should ensure transparency in both the Financial Model and ITPD Submission. Bidders are required to provide detailed Required Insurances premium calculations and full details of associated Project insurance related costs in accordance with the format set out in Part 1 (Insurance Cost Matrix) of Appendix G (Insurance Response Matrix) of Volume 1 of the ITPD. Bidders are required to complete the Part 2 (Insurance Technical Matrix) of Appendix G (Insurance Response Matrix) of Volume 1 of the ITPD in a manner which is consistent with their mark-up of the NPD Project Agreement.

4 COMPETITIVE DIALOGUE PROCESS

4.1 Introduction

4.1.1 The Board has elected to use Dialogue to award the Project in accordance with Regulation 18 of the Regulations. Therefore, Dialogue commences upon the issue of the ITPD.

4.1.2 It is envisaged that the Dialogue process will comprise a series of meetings leading to submission of the Final Tender, as more fully described in this section. The Board intends to continue the Dialogue until it is satisfied that Solutions from one or more Bidders are capable of meeting the Board's requirements.

4.1.3 During Dialogue, the Board will:

a) discuss aspects of the NPD Project Agreement, the other key project documents including the Ancillary Agreements and the proposed risk allocation with the Bidders;

b) ensure equality of treatment among the Bidders and in particular, will not provide information in a discriminatory manner which may give any Bidder an advantage over another; and

c) not reveal to the other Bidders, Solutions proposed or any confidential information communicated by a Bidder without that Bidder's agreement.

4.1.4 Bidders are required to provide the following Submissions during the Dialogue Period:

a) Informal Submissions; and

b) Draft Final Tender.

At the close of Dialogue, Bidders will be invited to submit their Final Tender.

4.1.5 Each Bidder is required to develop only one Solution and provide Submissions in accordance with the requirements of this paragraph 4 (Competitive Dialogue Process).

4.2 Timetable of Dialogue Meetings

4.2.1 A series of monthly meetings have been scheduled to take place with each Bidder on the dates indicated in the table below. The Board may vary the timetable or terminate or alter the Dialogue process in any way at its sole discretion.

Activity	Week	Bidder A	Bidder B	Bidder C
Dialogue Opens				
Issue ITPD	0	12/03/13		
Briefing Meeting \ Q and A Sessions	1	Tue 19/03/13	Wed 20/03/13	Thu 21/03/13
Informal Submission 1	2	Mon 25/03/13	Tue 26/03/13	Wed 27/03/13
Dialogue Meeting 1	3	Tue 02/04/13	Wed 03/04/13	Thu 04/04/13
Informal Submission 2	6	Mon 22/04/13	Tue 23/04/13	Wed 24/04/13
Dialogue Meeting 2	7	Tue 30/04/13	Wed 01/05/13	Thu 02/05/13
Informal Submission 3	10	Mon 20/05/13	Tue 21/05/13	Wed 22/05/13
Dialogue Meeting 3	11	Tue 28/05/13	Wed 29/05/13	Thu 30/05/13
Informal Submission 4	14	Mon 17/06/13	Tue 18/06/13	Wed 19/06/13
Dialogue Meeting 4	15	Tue 25/06/13	Wed 26/06/13	Thu 27/06/13
Informal Submission	18	Mon 15/07/13	Tue 16/07/13	Wed 17/07/13
Dialogue Meeting 5	19	Tue 23/07/13	Wed 24/07/13	Thu 25/07/13
Draft Final Tender Submission	24	26/08/13		
Dialogue Meeting 6	28	Tue 24/09/13	Wed 25/09/13	Thu 26/09/13
Dialogue Closes				
Invitation to Submit for Final Tenders	30	11/10/13		
Submission of Final Tenders	35	11/11/13		

4.2.2 Each monthly Dialogue Meeting (Dialogue Meetings 1-6) shall involve the Board spending time with each Bidder. The format of such monthly meetings shall be:

(a) Initial meeting between the Board's full Core Evaluation Team and Bidder's team;

(b) The initial meeting shall (if required) break out into a series of sub-meetings concentrating on legal, technical and financial aspects of Bidder's proposals;

(c) The sub-meetings shall re-convene for a final wrap up meeting with the Board's full Core Evaluation Team and Bidder's team.

4.2.3 In advance of each Dialogue Meeting, Bidders are invited to submit specific material related to the agenda topics to be discussed (**"Informal Submissions"**) as more fully set out in paragraph 4.5.3. These Informal Submissions by Bidders prior to the Dialogue Meetings shall enable the Board and its advisers to:

(a) review the work undertaken by Bidders since the previous Dialogue Meeting;

(b) provide any meaningful and relevant comments to the Bidders; and

(c) avoid any time disconnect between the Board's comments and the development of Bidders' Solutions.

4.2.4 The Informal Submissions referred to in paragraph 4.2.3 above shall be required to be uploaded onto Conject in advance of each Bidder's Dialogue Meeting as outlined in the table at paragraph 4.2.1.

4.3 Dialogue and the Core Evaluation Team

4.3.1 Formal Dialogue Meetings will generally be chaired by one of the following members of the Board's team, who represent the following interests in evaluation:

- Brian Currie (Project Director)
- Iain Graham (Commercial and Legal)
- Janice MacKenzie (Clinical and Service Users)
- Carol Potter (Finance)
- Jackie Sansbury (Operations and Commissioning)

4.3.2 Upon commencement of Dialogue, Bidders will have the opportunity to comment on the title and purpose of each meeting and to suggest changes they believe could be made in order to make the Dialogue more economic, efficient and effective.

4.3.3 Each Bidder will be required to attend the scheduled meetings set out at paragraph 4.2.1. However, Bidders can propose alternative dates no later than twenty (20) Business Days before a meeting is scheduled to take place and must explain to the Board (in broad terms) the reasons why this proposed change is necessary.

4.3.4 The Board will consider alternative dates proposed by Bidders provided this does not compromise its obligation to conduct an open, fair and transparent dialogue and subject to availability of the Board personnel and advisers.

4.3.5 The Board will confirm if they can accommodate an alternative date no later than fifteen (15) Business Days before a meeting is arranged to take place.

4.3.6 Where the Board is unable to accommodate an alternative date proposed by a Bidder, the Bidder is required to attend the original scheduled meeting as set out in paragraph 4.2.1.

4.3.7 The Board may, subject to the availability of its relevant resources and at its sole discretion and in accordance with the Regulations, meet Bidders in addition to the scheduled meetings before the submission of the Draft Final Tender. If the Board considers that additional meetings are required, these will be arranged by the Board and notified to the Bidders accordingly.

4.3.8 The Board will provide Bidders with a draft agenda for a scheduled or additional Dialogue Meeting no later than ten (10) Business Days before the date a Dialogue Meeting is arranged to take place. A draft agenda will include the following:

(a) Title;

(b) Date and time;

(c) Chairperson and Scribe;

(d) Attendees;

(e) Purpose;

(f) Parts of the ITPD to be discussed, and

(g) Parts of a Bidder's Solution to be discussed and any supporting information that would make a discussion more meaningful.

4.3.9 Bidders are required to provide the supporting information requested by the Board and advise the Board of any changes or additions to be made to the draft agenda, together with any requests for clarification to facilitate discussions no later than six (6) Business Days before the date of a Dialogue Meeting.

4.3.10 The final agenda agreed by the Board and a Bidder will be circulated by the Board to all attendees no later than five (5) Business Days before a Dialogue Meeting.

4.3.11 The number of attendees at a meeting should be kept to a minimum and reflect the purpose and subject matter to be discussed.

4.3.12 The Board will endeavour to communicate a record of the actions that were agreed by the Board and a Bidder during a meeting no later than four (4) Business Days after a Dialogue Meeting takes place.

4.3.13 This information exchange will not constitute any decision by the Board and will be limited to a record of:

(a) the parts of a Solution presented and specified by a Bidder at the Dialogue Meeting; and

(b) any actions arising out of the Dialogue Meeting.

4.3.14 Nothing in this information exchange is, or should be, relied upon as a promise or representation as to the Board's ultimate decision in relation to the Dialogue for the Project.

4.3.15 Notwithstanding that the Board may not have objected to nor rejected a Bidder's Solution during the Dialogue Period, such Solutions shall not be considered by the Bidder to have been approved by the Board.

4.4 Briefing Meeting/ Q and A Session

4.4.1 A separate initial briefing meeting (the "**Briefing Meeting**") will be held with each of the three Bidders.

4.4.2 This will be an opportunity for each Bidder to meet the Project Owner, the Core Evaluation Team and members of the Board's project team, including its advisers. The Board will make a presentation to provide Bidders with an overview of the Project and in particular the detail and importance of the Reference Design and the demarcation between Mandatory Reference Design Requirements and Indicative Elements of the Reference Design.

It is envisaged that the agenda for the Briefing Meeting will include:

(a) Introduction and purpose/agenda (*Project Director*);
(b) Strategic context (*Project Owner/Director of Capital Planning*);
(c) Clinical context/Reference Design (*Clinical Lead/Project Director*);

(d) Operational context (*Operations Lead/Director of Capital Planning*);
(e) Commercial issues (*Board Legal and Financial Advisers*);
(f) Programme and process (*Project Director/Commissioning Lead*);
(g) Q and A (*Bidders*).

4.4.3 The number of attendees from each of the Bidder's teams to the Briefing Meeting will be limited to a maximum of fifteen (15) each. Confirmation of the Bidder's attendees will be requested by the Board in advance.

4.4.4 In advance of the Briefing Meeting, Bidders will be invited to submit questions to the Board using Conject.

4.5 Dialogue and associated submission

4.5.1 It is envisaged that there will be five (5) Dialogue Meetings prior to submission of the Draft Final Tender. Initially the Dialogue will focus on the strategic direction of the Project and development of Bidders' proposals, including technical, financial and legal proposals. The Dialogue will then aid Bidders in developing Solutions capable of meeting the Board's requirements and refining them prior to submission of the Draft Final Tender. Informal Submissions, which shall not be evaluated, will be required in advance of the Dialogue Meetings to support the Bidders proposals. Feedback will be given to Bidders at each stage of the Dialogue and will inform the basis for the remaining Dialogue. The objective of Dialogue is to ensure Bidders are clear on the Board's requirements and allow each Bidder to develop a Solution that is capable of meeting the requirements set out in the ITPD. Dialogue will also be the opportunity for Bidders to explore innovative proposals and aspects of their approach that will add value with the Board.

4.5.2 The schedule of formal Dialogue Meetings and corresponding dates for Dialogue Meetings are set out in paragraph 4.2.1 above.

4.5.3 The proposed agenda topics and submission requirements for each Dialogue Meeting are set out in the following appendices to Volume 1 of the ITPD:

(a) Appendix A (i) (Technical Agenda Topics and Informal Submission Requirements) and (ii) (Submission Requirements);

(b) Appendix B (i) (Financial Agenda Topics and Submission Requirements); and

(c) Appendix C (i) (Legal Agenda Topics) and (ii) Submission Requirements and Evaluation).

It should be noted that this is a proposed guide to the agenda topics and submission requirements during Dialogue. Bidders may suggest changes, but this will require the agreement of the Board.

4.5.4 With each technical submission, Bidders are also required to provide a completed Annex 2 to Appendix A (ii) – "Schedule of Design Deliverables for Technical Meetings during Dialogue Period" confirming the supporting drawings and information that Bidders are providing to support the Submission Requirements of the ITPD. Bidders should note that all drawings must be submitted at least once before submission of the Draft Final Tender

4.5.5 Throughout Dialogue the Board intends to provide Bidders with any updates to the NPD Project Agreement, its schedules and other project documents including the relevant Ancillary Agreements as set out in Volume 2 of the ITPD.

4.6 Draft Final Tender

4.6.1 Bidders are required to submit a Draft Final Tender on or before noon on the date set out in the programme at paragraph 4.2 (Timetable of Dialogue Meetings) or such other dates as notified by the Board to the Bidders.

4.6.2 The Board will review the Draft Final Tenders to ensure compliance with the tender requirements set out within the ITPD. A final Dialogue Meeting will then take place as indicated on the programme at paragraph 4.2.1 (Timetable of Dialogue Meetings). This Dialogue will provide feedback to Bidders on the content of their Draft Final Tender and clarify any outstanding points.

4.7 Conditions for closing Competitive Dialogue

It is expected by the close of Dialogue, the terms of the NPD Project Agreement will have been agreed in all material respects. Once Dialogue has been closed, the Board shall invite each Bidder to submit a Final Tender.

4.8 Final Tender

4.8.1 Once Dialogue has closed, the Board will issue an Invitation to Submit Final Tender to each Bidder. The requirements for this Invitation to Submit Final Tender are broadly set out in Appendices A, B and C of Volume 1 of the ITPD. However the Board reserves the right to amend or modify the requirements for the Invitation to Submit Final Tender.

4.8.2 The Invitation to Submit Final Tender shall set out the following:

(a) date for receipt of the Final Tender by the Board;
(b) conditions of the Final Tender;
(c) the submission requirements of the Final Tender; and
(d) the methodology which the Board will use to evaluate the Final Tender.

4.8.3 The Preferred Bidder shall only be permitted to fine tune and clarify aspects of its Final Tender in line with the requirements of procurement law.

4. 9 Submission requirements for the Draft Final Tender and Final Tender

4.9.1 Each Bidder shall ensure that its Submissions are provided using UK English, with all values expressed in UK Sterling/GB Pounds, using formats as specified in Submission Requirements.

4.9.2 Bidders shall ensure that one (1) electronic copy of the Draft Final Tender and/or Final Tender are delivered electronically via Conject in accordance with the Conject user manual contained in Volume 4 of the ITPD and two (2) hard copies are also delivered by receipted mail or by hand to:

RHSC and DCN Project Director
Project Offices
NHS Lothian
56 Canaan Lane

Edinburgh
EH10 4SG

4.9.3 The packages shall be clearly marked for the attention of the Project Director, Re-provision of RHSC and DCN at Little France.

4.9.4 No package should bear any mark indicating the Bidder's identity. If more than one package is delivered, they all shall carry some random unifying code number and an indication of the number of packages in total (e.g. 1 of 2, 2 of 2).

4.9.5 Each Bidder shall obtain a signed receipt acknowledging delivery of the Submission.

4.9.6 The Draft Final Tender and/or Final Tender shall be submitted no later than noon on the date for the relevant submission set out in the programme at paragraph 4.2 (Timetable of Dialogue Meetings) of Volume 1 of the ITPD or such other date as notified by the Board to the Bidders.

4.9.7 Submissions or requests received after specified dates and times shall not be accepted for consideration and shall be returned unopened to the sender unless there are extenuating circumstances beyond the control of the Bidder in which case on being satisfied that such extenuating circumstances existed, the Board may at their discretion accept such submission.

4.9.8 Draft Final Tender and Final Tender submissions shall not be accepted by email or facsimile unless otherwise instructed by the Board.

4.9.9 Each Bidders' Draft Final Tender and/or Final Tender shall be presented in three volumes – volume 1: Technical response; volume 2: Financial response; and volume 3: Legal response. The content required in each section is defined in the following appendices to Volume 1 of the ITPD:

(a) Appendix A (ii) (Submission Requirements);

(b) Appendix B (i) (Financial Agenda Topics and Submission Requirements);

(c) Appendix C (ii) (Submission Requirements and Evaluation); and

(d) Appendix G (Insurance Response Matrix).

4.9.10 Each hard copy volume of a Bidders' Draft Final Tender and/or Final Tender shall be filed in a separate folder with its contents clearly marked on the outside with Bidder's name, volume number, folder number and copy number for example Volume 2, folder 1 of 3, copy 1.

4.9.11 Each folder shall contain an index list for that folder which shall be bound immediately inside the cover, including the page numbers of each folder.

4.9.12 Each page of each volume shall be numbered clearly and sequentially.

4.9.13 Submissions shall not include any loose pages.

4.9.14 Drawings shall be numbered and a drawing list shall be included as part of the index list under the appropriate heading.

4.9.15 Drawings shall not be larger than A1 size and shall be clearly referenced, folded and inserted into pockets within the appropriate volume.

4.9.16 Each Bidder shall nominate and mark one copy of the Draft Final Tender and/or Final Tender as the master copy. The master copy of the Submission shall be used as the primary source of reference during the evaluation process.

4.9.17 Bidders shall provide Draft Final Tender and Final Tender Submissions that contain all the elements required and necessary for the performance of the NPD Project Agreement on the basis of the Solution presented and specified by Bidders during the Dialogue Period and accepted by the Board and SFT under the derogations process.

4.9.18 Draft Final Tenders and/or Final Tenders must be completed under the headings, using the tables and information supplied by the Board, and shall follow the order and numbering contained in Appendices A, B and C of this Volume 1 of the ITPD.

4.9.19 Draft Final Tenders and/or Final Tenders that include key information that has not been presented and specified by Bidders during the Dialogue Period and/or the Board has previously confirmed is not capable of meeting the mandatory requirements will not be accepted by the Board.

4.9.20 Bidders should provide such information as is necessary to enable the Board to evaluate whether a Draft Final Tender and/or Final Tender is capable of meeting the Board's requirements.

4.9.21 The Board are entitled to modify Appendices A, B and C, of Volume 1 of the ITPD, the Board's requirements set out in Volume 1 of the ITPD generally, and/or require Bidders to omit specific aspects of a Solution at their absolute discretion where not agreed by the Board during the Dialogue Period pursuant to the parameters set out in the NPD Project Agreement, the Board's Construction Requirements and/or SFT under the derogations process subject to ensuring equality of treatment amongst all Bidders.

4.9.22 General information such as marketing and promotional information will not be accepted by the Board and all information provided by Bidders must be specific to the information that is requested.

4.9.23 Bidders are required to provide a Draft Final Tender and/or Final Tender that are acceptable to all legal entities (including, where relevant, any Senior Funders and relevant subcontractors) that are involved in the development of a Solution and the preparation of Draft Final Tender and/or Final Tenders.

4.9.24 Bidders shall note that the Board shall reserve its position on the acceptability or otherwise of the Draft Final Tender and/or Final Tender.

4.10 Conject (BIW)

4.10.1 The Project will use Conject during the ITPD process. Conject, formerly known as BIW, is a web-based construction collaboration portal. Procedures utilising Conject shall include:

(a) Data room access;

(b) Dialogue queries and Dialogue Period bulletin responses;

(c) Bid clarification queries and responses;

(d) Submitting Informal Submissions; and

(e) Submitting completed Draft Final Tenders and Final Tenders.

4.11 Communication Protocol

4.11.1 All information and communication flows between the Board and Bidders outwith Dialogue Meetings will be via Conject. The process for information and communication flows between the Board and Bidders including queries, bulletins, submissions, and request for clarifications is set out in paragraph 4.11.2.

4.11.2 Information and communication flows between the Board and Bidders will be categorised as follows:

(a) Dialogue Period Query (Confidential/Not Confidential – see paragraph 4.12) prepared by a Bidder and communicated to the Board;

(b) Dialogue Period Bulletin (Confidential/Not Confidential - see paragraph 4.12) prepared by the Board and communicated to a Bidder (either in response to a Dialogue Period Query or otherwise);

(c) Dialogue Period Submission prepared by a Bidder and communicated to the Board; and

(d) Request for clarification prepared by the Board and communicated to a Bidder in response to a Dialogue Period Submission.

4.11.3 Please refer to Appendix D of Volume 1 of the ITPD for template form to be used by Bidders when sending a Dialogue Period Query. Please also refer to Appendix D of Volume 1 of the ITPD for template forms to be used by the Board when providing a Dialogue Period Bulletin.

4.11.4 The Board is entitled to decline to respond to any other form of information and communication flow sent by a Bidder.

4.11.5 Bidders may communicate a Dialogue Period Query to the Board no later than ten (10) Business Days before the date of any Submission.

4.11.6 The Board will endeavour to provide a Dialogue Period Bulletin in response to a Dialogue Period Query by no later than five (5) Business Days before the date of any Submission.

4.11.7 Receipt of information and communications flows between the Board and Bidders will be recorded in accordance with Conject User Manual.

4.11.8 Additionally, the Board reserve the right to issue additional information at any time during the Dialogue Period. The Board may exercise the option to postpone the return of the Draft Final Tender or Final Tender in the event that additional information is issued which has a bearing on the Draft Final Tender or Final Tender.

4.12 Commercially sensitive and confidential information

4.12.1 If a Bidder considers a communication or any part of its submission to be commercially sensitive and wishes it to be treated by the Board as confidential they should make it clear in the relevant section of the Dialogue Period Query template form and explain in concise terms what harm may result from its disclosure.

4.12.2 If the Board does not agree that a communication is commercially sensitive, the Bidder will be invited to withdraw this communication. In the event that this invitation is declined, the Board will distribute a response to all Bidders.

4.12.3 If the Board agrees that a communication is commercially sensitive it will be treated in the strictest confidence by the Board subject to an entitlement to share such communication with the relevant members of the Board's Project team including advisers and key stakeholders for the purposes of preparing a confidential response.

4.12.4 Any Dialogue Period Bulletin prepared by the Board in response to a Dialogue Period Query which is not commercially sensitive will be distributed to all Bidders.

4.12.5 During the Dialogue Period, the Board may:

(a) seek to establish the feasibility of a Bidder's Solution relevant to an aspect of the Project including obtaining the view of a third party, for example in relation to the interface with existing RIE Facilities; and/or;

(b) where not viewed as commercially sensitive by a Bidder, look to adapt its requirements to reflect, whether in whole or in part information provided and/or elements of a particular Bidder's Solution.

Both of the above may involve the passing of information to a third party.

4.12.6 In relation to paragraph 4.12.5 a) above, the Board shall adopt a process whereby it shall use its reasonable endeavours to procure that:

(a) any third party recipient of information will require to sign a confidentiality undertaking prior to receipt of any information;

(b) the Bidder will be provided with a consent request, prepared separately from other Dialogue documentation, in which it may detail information it is prepared to disclose to a third party, including any potentially competing third party, relevant to its proposals, and seeking consent for such disclosure; and

(c) Following receipt of such a consent request, a Bidder may at all times refuse or agree to disclose information to a third party.

4.12.7 In relation to paragraph 4.12.6(b) above, the Board will use its reasonable endeavours to seek the express consent of a Bidder as to whether a specific aspect of that Bidder's Solution can be adopted by the Board as a requirement for all Bidders to meet. A Bidder may withhold consent to the Board adopting such a requirement on the grounds that the Bidder has developed such requirement as part of its Solution and considers this requirement to be commercially sensitive and not capable of being disclosed to the other Bidders.

4.13 Building Information Modelling (BIM)

Building Information Modelling (BIM) is being increasingly used within the industry. The use of BIM is being encouraged by central government and the Board expect that Bidders will use BIM for the development and implementation of their proposals.

Bidders shall prepare a BIM execution plan for review by, and agreement with, the Board. The BIM execution plan must be prepared in accordance with BS1192 and shall be

submitted as part of the Bidder's Informal Submission during the Dialogue Period and form part of their Final Tender. Appendix J contains further details of the Board's BIM requirements for the Project.

5 TENDER EVALUATION AND CONTRACT AWARD CRITERIA

5.1 Introduction

5.1.1 This section outlines the approach to the evaluation methodology for the Final Tenders. The Informal Submissions and Draft Final Tender shall not be evaluated by the Board. These Informal Submissions and Draft Final Tenders shall be used as tools during the Dialogue Period for Bidders to set out their Solutions to the Board and for subsequent feedback on whether aspects of the Informal Submissions and Draft Final Tenders meet the Board's requirements set out in the ITPD. Bidders should note that there shall be no down selection of Bidders during the Dialogue Period.

5.1.2 Contract award will be on the basis of the offer, contained in the Final Tender, which is the most economically advantageous as set out in paragraphs 5.6 (Quality Evaluation Criteria), 5.7 (Price Evaluation) and 5.8 (Combining Price and Quality Evaluation), also in accordance with Part 5 of the Regulations.

5.2 Overview of Evaluation Process

5.2.1 The Final Tender evaluation will comprise the following steps:

(a) Completeness and compliance check – as more fully set out in paragraph 5.3 (Compliance and Completeness);

(b) Compliance with the Stand Alone Requirements – as more fully set out in paragraph 5.4 (Compliance with Stand Alone Requirements);

(c) Evaluation of Funding Proposals - as more fully set out in paragraph 5.5 (Deliverability of Funding);

(d) Evaluation of all of the Quality Evaluation Criteria on a pass/fail basis - as more fully set out in paragraph 5.6.2 (Quality Evaluation Criteria)

(e) Evaluation of those Quality Evaluation Criteria that are evaluated on a scored basis - as more fully set out in paragraphs 5.6.3 (Quality Evaluation Criteria) which will result in a mark out of 40 being awarded to each Bidder;

(f) Price Evaluation (including commercial aspects) – as more fully set out in paragraph 5.7 (Price Evaluation), which will result in a mark out of 60 being awarded to each Bidder; and

(g) Combination of Price Evaluation Mark and Quality Evaluation Mark, resulting in a mark out of 100 being awarded to each Bidder, as more fully set out in paragraph 5.8 (Combining Price and Quality Evaluation).

Should a Final Tender fail any of the steps set out in paragraphs 5.2.1 (a), (b), (c) or (d) above then no further evaluation will be carried out and the Final Tender will be deemed to be non-compliant.

5.2.2 Bidders should note that Board's requirements as referred to in Table B and Table C of paragraph 5.6 (Quality Evaluation Criteria) means all requirements of the Board as set out in Volume 2 and Volume 3 of (and any requirements referred to within) this ITPD, and as may

be supplemented, varied and/or refined (and disclosed by the Board to Bidders during Dialogue).

5.3 Compliance and Completeness

5.3.1 The Board will check each Final Tender for compliance and completeness to establish if it has been prepared and submitted in accordance with and meets the requirements set out in the Invitation to Submit Final Tender.

5.3.2 The Board is entitled to disqualify a Bidder if a Final Tender is not prepared and submitted in accordance with the requirements set out in the Invitation to Submit Final Tender. The Board's decision on this matter will be final.

5.3.3 The Board is entitled, but not obliged, to seek clarification from Bidders at any time in respect of incomplete and ambiguous information contained in a Final Tender.

5.3.4 In the event the Board receives incomplete or ambiguous information in a Final Tender or response to a request for clarification the Board is entitled to disqualify a Bidder and the Board's decision on this matter will be final.

5.3.5 The Board may request a Bidder to clarify a Final Tender received, but such clarification, specification and/or fine tuning shall not involve material changes to a Final Tender when such clarifications, specifications or fine tuning are likely to distort competition or have a discriminatory effect.

5.4 Compliance with Stand Alone Requirements

5.4.1 The Board will check each Final Tender for compliance with the Stand Alone Requirements as identified in paragraph 2.3 (Stand Alone Requirements). Non compliance with the Stand Alone Requirements will result in the Final Tender being deemed to be non-compliant.

5.5 Deliverability of Funding

Bidders should assume for the purposes of Final Tender that the deliverability of the funding proposals will be evaluated on the following broad basis:

(a) acceptability of proposed guarantees to be put in place to support the Project Co/consortium structure;

(b) extent of Funders due diligence completed and demonstration of a robust process for conclusion of the Funders due diligence; and

(c) extent of demonstrated support of Funders (including assessment of the quality of letters of support and any conditions of financing) and summarily for providers of any junior debt.

However the Board will provide additional guidance to Bidders as to the specific requirements of Final Tenders in relation to funding during the Dialogue Period and will confirm how such requirements will be evaluated at this stage. The evaluation of funding proposals shall be assessed on a pass/fail basis. A pass will be awarded where the Board is satisfied that proposals demonstrate acceptability against each of the above criteria, as such

criteria may be changed by the Board and notified to the Bidders during the Dialogue Period. It is the Board's intention that, during Dialogue and Draft Final Tender stages, Bidders will be made aware of elements of the proposed solution they are developing which are unlikely to achieve a pass.

5.6 Quality Evaluation Criteria

5.6.1 The Quality Evaluation Criteria (QEC), the basis for evaluation and, where relevant, their weightings are included in Table A below. Bidder's should note that Appendix A (ii) of the ITPD sets out for Bidder's (under the column "Submission Requirement") a description of technical aspects which the Board require, or where indicated anticipate Bidders should provide in their Submissions. Please note, however, that the individual submission requirements (for example, the bulleted points) are not and should not be treated by Bidders as sub-evaluation criteria. Bidder's are reminded that the QEC are as set out in Table A (duplicated in the first, second and third columns of Appendix A (ii) for ease of reference) and responses to each QEC will be evaluated only in accordance with this paragraph 5 and no other basis.

5.6.2 The Board are keen to ensure that the Bidder appointed Preferred Bidder is able to deliver the highest quality in respect of all of its requirements. Therefore in the first instance, all QEC will be evaluated on a pass/fail basis. Primarily the QEC will be evaluated in accordance with the pass/fail criteria set out in Table B of this paragraph 5.6. However, in some instances the Board's requirements for a QEC are not set out in Volume 2 and Volume 3 of the ITPD and as such Table B shall not apply. In those cases the QEC shall be evaluated by the Board based on the pass/fail criteria set out in the column headed "Pass / Fail Guidance" (where relevant) in Appendix A(ii) of the ITPD. It is the Board's intention that, during Dialogue and Draft Final Tender stages, Bidders will be made aware of elements of the proposed solution they are developing which are unlikely to achieve a pass in accordance with the relevant criteria, as set out in Table B or Appendix A (ii).

5.6.3 Following the pass/fail evaluation the Board will then carry out a detailed assessment of the remaining Final Tenders to evaluate some of the QEC based on a scored evaluation. The scored assessment shall only apply to those QEC flagged as "scored" in Table A of this paragraph 5.6. Each of these scored QEC shall be given a score of between 5 and 10 in accordance with the scoring system set out in Table C of this paragraph 5.6. The score for each QEC will then be multiplied by the QEC Weighting and divided by 10 to give a weighted score. The weighted score for each QEC will be added to give a total score for Quality out of 40 (the **Quality Evaluation Mark**).

Table A – Evaluation Basis and Weightings for Quality Evaluation Criteria

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
A – Executive Summary			Not Scored	
B – Strategic and Management Approach (5%)				
	B1	Clarity, robustness and quality of understanding of policy framework and approach to addressing these.	Scored	0.16
	B2	Clarity, robustness and quality	Scored	0.32

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		of approach to contribution to delivering the Board's 'vision' and associated performance management regime		
	B3	Clarity, robustness and quality of understanding of Project outcomes and approach to contribution of delivering these	Scored	0.57
	B4	Clarity, robustness and quality, of approach to partnership and collaborative working with the Board and its partners	Scored	0.81
	B5	Clarity, robustness and quality of approach to staff development including recruitment, training, induction and HR issues	Scored	0.32
	B6	Clarity, robustness and quality of approach to delivering community benefits	Scored	0.32
	B7	Clarity, robustness and quality of approach to integration of design with facilities management considerations	Scored	0.32
	B8	Clarity, robustness and quality of approach to consortia management arrangements including approach to sub contractors	Scored	0.57
	B9	Quality of proposed personnel	Scored	0.32
	B10	Clarity, robustness and quality of approach to continuity throughout the Project	Scored	0.32
	B11	Acceptable organisational diagrams for each stage of Project	Pass/Fail	
	B12	Clarity, robustness and quality of approach to health and safety	Scored	0.81
	B13	Acceptable approach to environmental, quality and health and safety management systems	Pass/Fail	
	B14	Clarity, robustness and quality of approach to management of design development including integration with the Board and its partners	Scored	0.16
	B15	Acceptable	Pass/Fail	

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		programme from appointment as Preferred Bidder to Financial Close		
C – Approach to Design & Construction (23%)				
	C1	Clarity, robustness and quality of approach to meeting the stakeholders requirements in their design	Scored	2.64
	C2	Clarity, robustness and quality of approach to design quality	Scored	1.85
	C3	Clarity, robustness and quality of architectural and landscape design	Scored	2.64
	C4	Clarity, robustness and quality of approach to delivering innovation	Scored	2.64
	C5	Clarity, robustness, and quality of approach to adaptability and flexibility	Scored	2.64
	C6	Clarity, robustness and quality of way finding and signage proposals	Scored	1.06
	C7	Clarity, robustness and quality of interior design proposals	Scored	2.64
	C8	Clarity, robustness and quality of M&E engineering design proposals	Scored	1.06
	C9	Clarity, robustness and quality of natural and artificial lighting proposals	Scored	1.06
	C10	Clarity, robustness and quality of energy management proposals	Scored	1.85
	C11	Clarity, robustness and quality of equipment proposals	Scored	1.06
	C11A	Compliance with Minimum Level of Group 1 Equipment	Pass/Fail	
	C12	Compliance With Mandatory Reference Design Requirements	Pass/ Fail	
	C13	Acceptable approach to achieving planning permission	Pass/ Fail	
	C14	Acceptable vertical and	Pass/ Fail	

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		horizontal movement strategy		
	C15	Acceptable ICT strategy	Pass/ Fail	
	C16	Acceptable fire planning strategy	Pass/ Fail	
	C17	Acceptable structural design proposals	Pass/ Fail	
	C18	Acceptable services, utilities and infrastructure proposals	Pass/ Fail	
	C19	Acceptable approach to achieving required BREEAM rating	Pass/ Fail	
	C20	Acceptable post Preferred Bidder stage design development proposals and design programme	Pass/ Fail	
	C21	Compliance with Board's Construction Requirements	Pass/ Fail	
	C22	Acceptable design life proposals	Pass/ Fail	
	C23	Acceptable construction programme and approach to monitoring	Pass/ Fail	
	C24	Clarity, robustness and quality of construction methodology	Scored	1.85
	C25	Acceptable approach to commissioning and handover	Pass/ Fail	
	C26	Acceptable approach to quality and environmental management systems	Pass/ Fail	
	C27	Acceptable approach to health and safety management	Pass/ Fail	
	C28	Acceptable approach to compliance with CDM regulations	Pass/ Fail	
	C29	Robustness of technical costs	Pass/ Fail	
	C30	Acceptable list of summary assumptions, clarifications and derogations	Not Scored	
	C31	Acceptable Interface Proposals	Pass / Fail	
D – Approach to Facilities Management (12%)				
	D1	Clarity, robustness and quality of approach to management and administration of the Services and Contract	Scored	2.50
	D2	Acceptable approach to integration with Board policies and operation	Pass/ Fail	

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
	D3	Acceptable approach to ensuring quality management	Pass/ Fail	
	D4	Acceptable approach to ensuring environmental management	Pass/ Fail	
	D5	Acceptable approach to ensuring health and safety management	Pass/ Fail	
	D6	Acceptable approach to interfacing with the Board for undertaking works outside of access times	Pass/ Fail	
	D7	Clarity, robustness and quality of approach to partnership and resources including liaison, resources and supply chain management	Scored	2.50
	D8	Acceptable approach to business continuity planning	Pass/ Fail	
	D9	Acceptable fire safety policies and procedures	Pass/ Fail	
	D10	Clarity, robustness and quality of approach to performance and information management including; Helpdesk, programme maintenance lifecycle, performance monitoring, monitoring and records, regular reports and information requests, building services and statutory testing	Scored	4.50
	D11	Acceptable approach to un-programmed maintenance	Pass/ Fail	
	D12	Clarity, robustness and quality of approach to service elements including; utilities management and grounds maintenance services	Scored	2.50
	D13	Robustness of technical costs	Pass/ Fail	
	D14	Acceptable list of summary assumptions, clarifications and derogations	Not Scored	
	D15	Acceptable approach to mobilisation of Facilities Management services	Pass/ Fail	

Table B – Pass / Fail Criteria for Quality Evaluation Criteria

	Pass / Fail Criteria
Pass	The Bidders approach: • demonstrates a satisfactory understanding of the Board's requirements; and • delivers a satisfactory level of compliance with the Board's requirements.
Fail	The Bidders approach: • fails to demonstrate a satisfactory understanding of the Board's requirements; or • fails to deliver a satisfactory level of compliance with the Board's requirements.

Table C – Scoring System for Quality Evaluation Criteria

Scoring Range 5 – 10	**Categorisation**	**Description**
5	Satisfactory	The Bidder's approach: • demonstrates a satisfactory understanding of all aspects of the Board's requirements; and/or • proposes a solution which performs satisfactorily in complying with the Board's requirements.
6-7	Good	The Bidder's approach: • demonstrates a satisfactory understanding of all aspects of the Board's requirements and a detailed and good understanding of some aspects of the Board's requirements; and/or • proposes a solution which performs well against the Board's requirements.
8-9	Very Good	The Bidder's approach: • demonstrates a detailed and very good understanding of all aspects of the Board's requirements; and/or • proposes a solution which, performs very well against the Board's requirements.

Scoring Range 5 – 10	Categorisation	Description
10	Excellent	The Bidder's approach: • demonstrates an exceptional understanding of all aspects of the Board's requirements; and/or • proposes a solution which performs very well in complying with the Board's requirements and excels in complying with some of the Board's requirements.

5.7 Price Evaluation

5.7.1 Economic Cost

The Economic Cost of the Submission will be determined by calculating the Net Present Value (NPV) of each Financial Submission over the period of the NPD Project Agreement using the following components:

(a) NPV of Annual Service Payment - The proposed total Annual Service Payment stream in the Bidder's Financial Model, taken from Financial Pro-forma 1 and verified against the Financial Model, prepared using the assumptions and specifications set out in paragraphs 3.8 and 3.9. The NPV will be calculated using the Treasury real discount rate of 3.5% (6.0875% nominal);

(b) NPV of Surpluses - The forecast level of surpluses in the Bidder's Financial Model, as presented in Financial Proforma 2 and verified against the Financial Model will be deducted from the NPV of the total Annual Service Payment. Due to the more uncertain nature of the surplus payments the NPV will be calculated using a real discount rate of 4.39% (7.0% nominal);

(c) Equalisation Adjustment - Any additional material related costs and revenues to be borne by the Board as a result of any Financial Submission, including the pass-through costs of energy and utilities, rates and insurance costs as set out in Financial Pro-forma 1. The impact of such costs will be estimated by the Board and expressed as an NPV of the adjustments made, discounted at a real rate of 3.5%. Where an Equalisation Adjustment (other than the pass-through costs) has been made, the nature of and rationale for the adjustment will be disclosed to the Bidder; and

(d) Quantifiable Bidder Amendments - The Economic Cost will include an amount that reflects the deemed value (whether positive or negative) of any (i) amendments, caveats or qualifications to the NPD Project Agreement or specification that affect the risk profile of the Project or (ii) elements of the Financial Submission, that have or, in the reasonable opinion of the Board may have, a significant and quantifiable financial impact on the Board (a '**Quantifiable Bidder Amendment'**). For this purpose, the deemed value of the Quantifiable Bidder Amendment will be the estimated financial impact to the Board of the risk occurring multiplied by the estimated probability of that risk being realised. Such values will be converted to an NPV using the 3.5% real discount rate.

Where any such Quantifiable Bidder Amendments and/or Equalisation Adjustments are identified, these will be discussed and the deemed value shared with each Bidder during Dialogue.

5.7.2 Price Evaluation Mark

The Economic Cost derived from the components described in paragraph 5.7.1 will be scored as shown in the table below, with the Bidder with the lowest Economic Cost scoring the maximum 60 (the **Price Evaluation Mark**).

Deviation from lowest Economic Cost	Price Evaluation Mark
</=0.25%	60
>0.25%, </=0.50%	59.75
>0.50%, </=0.75%	59.625
>0.75%, </= 1.00%	59.5
>1.00%, </= 1.50%	59.25
>1.50%, </=2%	59
>2%, </=3%	58.5
>3%, </=4%	58
>4%, </=5%	57.5
>5%, </=6%	56.5
>6%, </=7%	55.5
>7%, </=8%	54.5
>8%, </=9%	53.5
>9%, </=10%	52.5
>10%, </=11%	50.5
>11%, </=12%	48.5
>12%, </=13%	46.5
>13%, </=14%	44.5
> 14%, </= 15%	42.5
> 15%, </= 16%	40.5
> 16%, </= 17%	37.5
> 17%, </= 18%	34.5
> 18%, </= 19%	31.5

Deviation from lowest Economic Cost	Price Evaluation Mark
> 19%, </= 20%	28.5
> 20%, </= 21%	24.5
> 21%, </= 22%	20.5
> 22%, </= 23%	16.5
> 23%, </= 24%	12.5
> 24%, </= 25%	8.5
> 25%	0

5.8 Combining Price and Quality Evaluation

For each Bidder, the Price Evaluation Mark (out of 60) will be added to the mark for the Quality Evaluation Mark (out of 40) to give a total mark out of 100. The Final Tender with the highest combined mark will be deemed by the Board to be the most economically advantageous tender.

6 GENERAL PROCUREMENT RULES

6.1 Introduction

This section outlines the general procurement rules applying to the Project competition in addition to those set out in section 4 (Competition Dialogue Process) relevant to submission requirements and elsewhere within the ITPD.

6.2 Information provided to Bidders – Confidentiality and Crown Copyright

By receiving the ITPD, each Bidder agrees to keep confidential the ITPD to Participate in Dialogue and all of the Information Provided.

Bidders shall not reproduce the ITPD in any form (including photocopying or storing by electronic means) or any other Information Provided for any purpose other than that specifically necessary to make a Submission without the specific written permission of the Board.

The ITPD and Information Provided may be made available to a Bidder's members, employees and professional advisers directly involved in the appraisal of such information (who must be made aware of the obligation of confidentiality) but shall not, either in whole or in part, be copied, reproduced, distributed or otherwise made available to any other party in any circumstances without the prior written consent of the Board, nor may it be used for any other purposes than that for which it is intended.

The ITPD (including any copies and or any supplemental or referenced documents) and any Information Provided is and shall always remain the property of the Board who is entitled to demand their return and/or destruction at any time.

6.3 Information provided to Bidders - Warnings / Disclaimers

While the Information Provided has been prepared in good faith, it does not purport to be comprehensive nor to have been verified by the Board or any of their advisers. Neither the Board nor any of their agents or advisers accept any liability or responsibility for the accuracy, adequacy or completeness of any opinions, commentary, information and documentation contained in the ITPD or of any other opinions, commentary, information and documentation made available during the Tender Period or in respect of any Final Tender. No representation or warranty, express or implied, is or will be given by the Board or any of their agents or advisers with respect to such opinions, commentary, information and documentation. Any liability therefore is hereby expressly disclaimed.

It is not warranted that the Information Provided shall identify or provide Bidders with Solutions for the attainment of the Board's requirements. It is the responsibility of each Bidder to develop their proposals to ensure that they satisfy the Board's requirements.

Bidders must obtain for themselves at their own responsibility and expense all information necessary for the preparation of their Submissions during the Tender Period and in respect of any Final Tender.

Bidders must complete and provide all information in accordance with the conditions and requirements of the ITPD.

6.4 Restrictions on the Use of the Invitation to Participate in Dialogue

The ITPD and subsequent Information provided should not be considered as an investment recommendation made by the Board or any of its advisers or agents to any of the Bidders. Each person to whom the ITPD is issued should make its own independent assessment of the Project competition and all matters relevant to that competition and to the Project after making such investigation and taking such professional advice as it deems necessary.

Nothing in the ITPD is, or should be, relied upon as a promise or representation as to the Board's ultimate decision in relation to the Project competition and/or the award of a public contract.

6.5 The Board's Right to Terminate

Bidders' attention is drawn to the fact that, by issuing the ITPD, the Board is in no way committed to accepting any Final Tender or identifying a Preferred Bidder.

The Board reserves the right, in its absolute discretion, to terminate, cancel or abandon the Project competition at any time before the execution of the NPD Project Agreement without giving prior notice to Bidders. In the event that the Project competition is so terminated, the Board will have no liability whatsoever to a Bidder, their subcontractor(s), their funders, the advisers to the Bidder or adviser(s) to any subcontractor(s) or funders for any costs incurred in connection with the Project competition.

6.6 Board's right to vary the process

The Board reserves the right, at its discretion, and subject to compliance with procurement law requirements:

6.6.1 to change the basis of, terms of or the procedure for, the process, including the timing, form and substance of the procedure of the Project competition. Under no circumstances shall the Board incur any liability in respect thereof;

6.6.2 to issue supplementary documentation at any time during the Project competition in order to clarify any matter and/or amend any aspect of the Information Provided;

6.6.3 amend the Board's requirements, Mandatory Reference Design Requirements, NPD Project Agreement and/or any other aspect of the Board's procurement documentation.

Any changes shall be communicated to Bidders as quickly as possible.

6.7 Conduct and Conflicts of interest

The Board wishes to avoid or resolve any conflicts of interest or other matters which may compromise its legal obligations relevant to conducting an open, transparent, fair and non-discriminatory competitive procurement. A Bidder must, accordingly, ensure that its participation in the Project competition that may lead to the award of a contract does not in any way compromise the Board's performance of its obligations.

A Bidder must consider these matters carefully on an ongoing basis and ensure that its actions are not capable of compromising the Board's ability to meet its obligations.
If in doubt, a Bidder must declare a potential conflict of interest and inform the Board of the measures the Bidder intends to implement to avoid it occurring.

The Board and Bidders will seek to agree the measures that are necessary to avoid any conflicts of interest or potential conflicts of interest arising.

In the event that an agreement cannot be reached and the Board considers its obligations in relation to the procurement are compromised, the Board reserves the right to disqualify a Bidder from the Project competition. The Board's decision on this matter will be final.

Each Bidder shall ensure that all relevant entities involved in its participation in the Project competition, including, without limitation, consortia members, subcontractors and all relevant technical, financial and legal advisers, are aware of the provisions of this paragraph 6 and do not breach any of the provisions set-out herein

6.8 Canvassing and contacts

Except as provided in the ITPD, Bidders shall not approach staff of the Board or staff of the Board's advisers or contractors with a view to obtaining information or clarification in respect of any part of their Submission or solution or attempting to support or enhance their prospect of being identified as the Preferred Bidder. Any such approach or attempted approach by a Bidder may lead to the Bidder's disqualification.

Bidders are required to complete a Certificate of Non-Collusion and Non-Canvassing as part of their Final Tender.

6.9 Disqualification/Rejection of Bidders

In accepting delivery of the ITPD, each Bidder agrees to abide by the provisions and conditions that it contains, or which are set out in any subsequent Information Provided in relation to the Project competition, in all and any dealings or communications, during the course of the Dialogue and in respect of any Final Tender or otherwise in relation to the Project.

The acceptance of the ITPD by a Bidder will imply acceptance of its provisions by Bidders without qualification. Any attempt to qualify provisions, either expressly or impliedly, may result in the Bidder being disqualified.

The Board reserves the right to reject or disqualify a Bidder where:

6.9.1 a Bidder's Submission is submitted late, completed incorrectly, incomplete or fails to include a Solution capable of meeting the Board's requirements; and/or

6.9.2 the Bidder or any person or entity involved with the Bidder's participation in the Project competition is guilty of serious misrepresentation in relation to any aspect of the Project competition; and/or

6.9.3 there is a change in identity, control, financial standing or other factor impacting on the selection and/or evaluation process affecting the Bidder including, where the Bidder is a consortium, changes relevant to Consortium membership and members , and such changes shall be addressed in accordance with paragraph 6.13; and/or

6.9.4 the Bidder or any person or entity involved with the Bidder's participation in the Project competition contravenes any of the terms of the ITPD or terms set out in any subsequent Information Provided, including within the Invitation to Submit Final Tenders; and/or

6.9.5 the Board becomes aware that information provided by the Bidder or any person or entity involved with the Bidder's participation in the Project competition is intentionally or unintentionally false, misleading or incorrect; and/or

6.9.6 the Bidder or any entity involved with the Bidder's participation in the Project competition prejudices the Project competition by failing to take steps to address a conflict of interest or other matters which impact negatively on the Board's ability to meet its procurement law obligations.

6.10 Costs

All work undertaken and costs incurred by Bidders in relation to any stage of the Dialogue relating to the Tender Period and any Final Tender, or otherwise in relation to the Project, shall be at each Bidder's own risk and expense.

6.11 Freedom of Information

FOISA and the Environmental Information (Scotland) Regulations provide significant and important rights to access information and the Board supports FOISA's and the Environmental Information (Scotland) Regulations' underpinning principles by encouraging behaviour which is open, transparent and increases public participation. Accordingly, all information submitted to the Board may be disclosed by the Board in response to a request under FOISA and the Environmental Information (Scotland) Regulations or in response to Legislation requiring the disclosure of information by the Board. The decisions of the Board in the interpretation thereof shall be final and conclusive in any dispute, difference or question arising in respect of disclosure. The Board may also decide to include certain information in the publication scheme which it maintains under FOISA and the Environmental Information (Scotland) Regulations.

Further, the Board may also disclose all information submitted to them to the Scottish or United Kingdom Parliament or any other department, office or agency of Her Majesty's Government in Scotland or the United Kingdom, and their servants or agents.

If a Bidder considers that any of the information to be provided is commercially sensitive, it shall be obliged to identify it and explain to the Board (in broad terms) what harm may result from its disclosure. Bidders should be aware that, even where it has indicated that information is commercially sensitive, the Board may be required to disclose it and as such reserves the right to do so.

Bidders should also note that the receipt of any material marked 'confidential' or equivalent by the Board should not be taken to mean that the Board accept any duty of confidence by virtue of that marking.

The Board may publish, on the Scottish Government and the Board's websites, the names and contact details of Bidders who have been issued with the ITPD.

6.12 Collusion

Any collusion between Bidders, their subcontractors or advisers will lead to the exclusion of the Bidders involved at the discretion of the Board.

Bidders shall be required to sign the Certificate of Non-Collusion and Non-Canvassing and to submit it no later than five (5) Business Days from the date of issue of the ITPD.

6.13 Changes in Bidder Circumstances

Each Bidder is required immediately to bring to the Board's notice any change in the identity of any organisation, consortium member or entity identified and evaluated in its pre-qualification submission since the submission of the Pre-Qualification Questionnaire and such change may only be made with the prior written agreement of the Board. Any additional information provided by a Bidder pursuant to the requirements of this section will be evaluated in accordance with the selection criteria in respect of such information in the Pre-Qualification Questionnaire. The Board has selected the Bidders on the basis of information provided by them concerning their eligibility, the economic and financial standing, technical and professional ability. The Board reserve the right to withdraw the selection of a Bidder at any time if the Board concludes that a Bidder is ineligible, no longer satisfies the minimum standards of economic and financial standing or technical and professional ability or is otherwise required by its procurement law obligations to reject the Bidder.

6.14 Non Compliance

Any Submission provided without the Bidder complying with the requirements of the ITPD or any Invitation to Submit Final Tender may be rejected by the Board.

6.15 Publicity and Media Statements

Bidders shall obtain the Board's specific written permission (on form, content and purpose) before any statements or other disclosures regarding their involvement in the procurement of the Project are made public (media, seminars, websites, conferences, promotional material etc).

6.16 Variant Bids

In accordance with the OJEU Notice, Bidders should be aware that no variant bids will be permitted.

Appendix A (i) –Technical Agenda Topics and Informal Submission Requirements

Bidders should note that the table below is a proposed guide to the agenda topics during Dialogue. It may however be subject to change to reflect the outcome of Dialogue and bidder specific issues. Bidders may suggest changes, but this will require the agreement of the Board.

With each Technical submission, Bidders are also required to provide a completed Annex 2 of Appendix A (ii) – "Schedule of Design Deliverables for Technical Meetings during Dialogue Period" confirming the supporting drawings and information that Bidders are providing in support of the Bid Submission Requirements. Bidders should note that all design deliverables must be submitted at least once before the Draft Final Tender submission.

Technical

Meeting	**Topics/Subject Areas**	**Submission in advance of meeting (cross ref. to Submission Requirements Table) supported by deliverables, where appropriate, as listed in AP1.1 (drawings) and 1.2 (specifications)**
Meeting 1	<u>Strategic</u> Understanding, Vision, Understanding outcomes, Collaborative working <u>Design</u> General approach to design covering stakeholders requirements, strategic approach to design, architectural and landscape strategy, innovation and adaptability/flexibility. Planning permission, Approach to BIM and development of drawings <u>Equipment</u> Approach to equipment. <u>Facilities Management</u> Approach to FM and integration with Board policies <u>Costs</u> Approach to development of Capex and Opex	B1, B2, B3, B4. C1, C2, C3, C4, C5, C12, C13 C11 D1, D2. C29, D13
Meeting 2	<u>Strategic</u>	

Meeting	Topics/Subject Areas	Submission in advance of meeting (cross ref. to Submission Requirements Table) supported by deliverables, where appropriate, as listed in AP1.1 (drawings) and 1.2 (specifications)
	HR issues, Community Benefits, Integration of Design & FM Meeting 1 update. <u>Design</u> Approach to M&E, daylighting and artificial lighting and energy management. Update from Meeting 1. Initial draft proposals for layout and architecture and development of BIM. <u>Construction</u> Approach to construction methodology and programme <u>Interface Proposals</u> <u>Facilities Management</u> Approach to FM QA, Environmental Management, Health & Safety and out of hours working. Update from Meeting 1 <u>Costs</u> Report on development of Capex and Opex with draft costs.	B5, B6, B7 C8, C9, C10 C23, C24 C31 D3, D4, D5, D6 C29, D13
Meeting 3	<u>Strategic</u> Consortia management, proposed personnel, organisation, maintaining continuity. Update from Meeting 2 <u>Design</u> Approach to vertical and horizontal movement, ICT, fire, structural engineering and site services and utilities.	B8, B9, B10, B11 C14, C15, C16, C17, C18

Meeting	Topics/Subject Areas	Submission in advance of meeting (cross ref. to Submission Requirements Table) supported by deliverables, where appropriate, as listed in AP1.1 (drawings) and 1.2 (specifications)
	Update from Meeting 2 Developed proposals for layout and engineering – further development of BIM. <u>Construction</u> Update on approach to construction methodology and programme. <u>Interface Proposals</u> Update from meeting 1. <u>Equipment</u> Draft proposals for equipment strategy including group 1 equipment. <u>Facilities Management</u> General FM management proposals and approach to FM partnering, business continuity, fire strategy. Update from Meeting 2. <u>Costs</u> Report on development of Capex and Opex with further developed costs. <u>Insurance</u> Report on insurance in accordance with Appendix G (Insurance Response Matrix)	 C23, C24 C31 C11 D7, D8, D9, D10 C29, D13.
Meeting 4	<u>Strategic</u> Consortia approach to health and safety, H&S, QA and environmental management systems, design management programme for period from Preferred Bidder to	B12, B13, B14, B15

Meeting	Topics/Subject Areas	Submission in advance of meeting (cross ref. to Submission Requirements Table) supported by deliverables, where appropriate, as listed in AP1.1 (drawings) and 1.2 (specifications)
	Financial Close. Update from Meeting 3. <u>Design</u> Wayfinding, interior design, comparison with reference design, planning permission, BREEAM. Update from Meeting 3. Further development of BIM with draft versions of submission drawing requirements. <u>Construction</u> Final approach to construction methodology and programme, commissioning and handover, QA, construction health and safety and CDM. <u>Equipment</u> Review of final equipment proposals. <u>Facilities Management</u> Approach to services elements, unprogrammed maintenance. Assumptions made and mobilisation proposals. <u>Costs</u> Report on development of Capex and Opex with further developed costs. <u>Insurance</u> Update from Meeting 3.	C6, C7, C12, C13, C19 C23, C24, C25, C26, C27, C28 C11 D11, D12, D14, D15. C29, D13.
Meeting 5	<u>Strategic</u> Update on Meeting 4 and final review.	

Meeting	Topics/Subject Areas	Submission in advance of meeting (cross ref. to Submission Requirements Table) supported by deliverables, where appropriate, as listed in AP1.1 (drawings) and 1.2 (specifications)
	<u>Design</u> Review of final response to general approach to design covering stakeholders' requirements, strategic approach to design, architectural and landscape strategy, innovation and adaptability/flexibility. Final review of BIM and draft versions of all drawing submission requirements. <u>Construction</u> Compliance with BCRs, design life proposals, assumptions, clarifications and derogations. Final update on programme, commissioning and handover, QA, construction health and safety and CDM. <u>Equipment</u> Feedback on final equipment proposals <u>Facilities Management</u> Review and update on FM proposals. <u>Costs</u> Report on finalisation of Capex and Opex with final draft costs. <u>Insurance</u> Update from Meeting 4.	C1, C2, C3, C4, C5 C20, C22, C30 C23, C24, C25, C26, C27, C28 C11 C29, D13.
Meeting 6	Feedback on Draft Final Tender submission.	

Appendix A (ii) – Submission Requirements

The technical Submissions submitted by the Bidders shall be structured following the same numbering reference system as set out in the "Quality Evaluation Criteria and Reference" and the "Submission Requirement Reference" in the table below.

In relation to the technical Submission Requirements for C (Approach to Design and Construction), subject to the requirements of paragraph 4 of Volume 1 of the ITPD and to encourage and facilitate innovative technical solutions, Bidders are permitted to submit its responses in a format (e.g. written responses, drawings or other representations) which they consider most appropriate to best demonstrate an understanding of the Board's requirements and/or a solution which complies with the Board's requirements. However, as a minimum, the Board would require all design deliverables set out in AP1.1 and AP1.2 to be submitted as part of the Submission Requirements for C (Approach to Design and Construction) and each response (C1 to C31) should refer to which Design Deliverables within AP1.1 and AP1.2 support the response.

The technical submission requirements submitted by the Bidders in response to section C (Approach to Design and Construction) below will ultimately form part of Project Co's Proposals in accordance with the NPD Project Agreement.

The technical submission requirements submitted by the Bidders in response to section D (Approach to Facilities Management) below will ultimately form part of the Method Statements in accordance with the NPD Project Agreement.

The technical submission requirements submitted by the Bidders in response to section B (Strategic and Management Approach) below will form part of Project Co's Proposals and/or the Method Statements in accordance with the NPD Project Agreement.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
A. Executive Summary A1	Not Scored	n/a	A1.1	Bidders must submit an Executive Summary of their Final Tender. The Executive Summary shall include: • An overview of the Bidders' approach to the Project; • The Bidders' understanding of the Project, key Board requirements and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the main factors, as determined by the Bidder that will influence the deliverability of the Project. In addition a concise statement describing the Bidders' approach to address the factors identified; • An indication of what the Bidders bring to the Project by way of skills or innovative solutions to meet their own criteria for success; • An overview of the Bidders' accepted list of key assumptions or clarifications • An overview of the Bidders' proposed design solution and integration with the Site; and • An overview of the Final Tender from a financial perspective, including a summary of capital costs, the Unitary Payment and funding structures.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B. Strategic and Management Approach					
B1. Clarity, robustness and quality of understanding of policy framework and approach to addressing these.	Scored	0.16	B1.1	Bidders must submit proposals setting out their understanding of the relevant local and national health policies and describe how these strategic issues have been included within the Bidders' Final Tender submission, in particular with respect to the delivery of solutions specific to this Project.	To Pass, Bidders will be required to demonstrate a clear understanding of national health policies specific to the Project.
B2. Clarity, robustness and quality of approach to contribution to delivering the Board's 'vision' and associated performance management regime	Scored	0.32	B2.1	Bidders must submit proposals setting out how their proposals will enhance and contribute to the Board's vision. Bidders should explain their role in delivering the Board's vision, and include proposed performance management mechanisms for demonstrating Project Co's contribution to the achievement of this vision.	To Pass, Bidders will be required to demonstrate that they will contribute to the Board's vision.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B3. Clarity, robustness and quality of understanding of Project outcomes and approach to contribution of delivering these	Scored	0.57	B3.1	Bidders must submit proposal setting out their understanding of the Project outcomes (as outlined in the Boards benefits realisation plan) and how their proposals will contribute to the delivery of outcomes/benefits with specific details of how the Bidder has already addressed these in their Final Tender submission, or how they will be addressed after Final Tender submission. Bidders must also outline what they offer by way of skills and/or innovative solutions to deliver these outcomes/benefits.	To Pass, Bidders will be required to demonstrate that they understand the Project outcomes and will contribute to these.
B4. Clarity, robustness and quality, of approach to partnership and collaborative working with the Board and its partners	Scored	0.81	B4.1	Bidders must submit a method statement outlining their approach to collaborative working and developing and maintaining a successful long term partnership with the Board and its partners, (i) in the period from Preferred Bidder appointment to Financial Close; (ii) throughout the construction period; and (iii) operational period of the contract confirming in their proposals: • What they believe to be the factors critical to achieving a successful relationship (both short term and long term);	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to collaborative working.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Their understanding of the key interface issues and how they intend to manage these and integrate with the existing relationships; • How they will develop and maintain a full understanding of the Boards' objectives including matters identified during Dialogue; • How their objectives can reflect and adapt to the Board's goals as they evolve over time; and • The manner in which they will conduct themselves that accords with the culture of the Board, local communities and other key stakeholders to the Project.	
B5. Clarity, robustness and quality of approach to staff development including recruitment, training, induction and HR issues	Scored	0.32	B5.1	**Recruitment** The Bidders must submit proposals setting out details of the following: • Approach to recruitment and vetting of staff, including as appropriate relevant security clearances (e.g. Disclosure Scotland, Protection of Vulnerable Groups Scheme etc); • Procedures for working in areas with children or vulnerable persons; and	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to staff development.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Details of its employment policy and evidence that employees and prospective employees are treated fairly irrespective of race, gender, religion, disability or background.	
			B5.2	**Human Resources Issues** The Bidders must submit proposals setting out: • Details of their Occupational Health approach for staff having come into contact with high risk person or areas.	
			B5.3	**Training and Induction** The Bidders must submit proposals setting out: • Details of any achievement in relation to the Investors In People initiative (or equivalent); • Details of the Bidder's employee development and appraisal system; • Details of its own and its supply chain's training policy and procedures, including an indication of the training to be offered to the on-site staff specific to this Contract and a statement of the percentage of their annual turnover which is spent on staff training;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Details of induction programme and ongoing training for staff, specifically working with HV systems and Legionella control; and • Details of induction programme for sub-contractors.	
B6. Clarity, robustness and quality of approach to delivering community benefits	Scored	0.32	B6.1	Bidders must submit their proposals to deliver community benefits as part of the Project in accordance with Clause 73 (Community Benefits) of the NPD Project Agreement and Appendix I of Volume 1 of the ITPD. These should include specific proposals covering economic, environmental and social benefits related to the Project during both the construction and operational stages of the Project.	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to community benefits (including complying with the minimum targeted recruitment numbers set out in Appendix I Section 2.1).
B7. Clarity, robustness and quality of approach to integration of design with facilities management considerations	Scored	0.32	B7.1	Bidders must submit proposals demonstrating how a consistent and a coordinated approach will be developed and assured between the building design and FM solutions. Bidders shall take account of the hard FM site interface issues and integration with the soft FM which will be provided by the Board. Bidders responses shall include specific	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to integration of design with facilities management.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				proposals on: • How their design development process will consider and incorporate the FM aspects at each stage of the process from pre financial close through to construction; and • The method by which design coordination issues will be managed and FM interface issues raised with the Board and its partners.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B8. Clarity, robustness and quality of approach to consortia management arrangements including approach to sub contractors	Scored	0.57	B8.1	Bidders must submit proposals setting out details of how its consortium will be managed, setting out the key roles and their responsibilities including technical roles within their consortium they have identified as key to the Project during contract finalisation, construction and operational stages and Project Co's role in leading the project management. This shall include team leaders for all principal disciplines, both before and after financial close, and may include but not be limited to the following: • Project and programme management; • Risk management; • Design; • Works; • Services; and • Quality, safety and environmental management including HAISCRIBE and BREEAM.	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to consortia management proposals.
			B8.2	Where any element of the Works and/or Services are to be provided by subcontractors other than the Contractor or Service Provider(s) Bidders must submit details of: • The selection process undertaken for such sub contractors that are confirmed at the time of submitting Final Tender, and/or the selection process (including timescales) that will be undertaken for	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				those subcontractors yet to be confirmed; and • The manner in which performance of the sub contractors will be secured and integrated within the overall performance requirements of the Board's output specifications.	
B9. Quality of proposed personnel	Scored	0.32	B9.1	Bidders must submit a summary curriculum vitae (maximum of two pages per person) of the personnel proposed for the roles identified in B8 above which shall include (as a minimum) details of key experience, education and professional status.	To Pass, Bidders will be required to demonstrate that their key personnel have satisfactory levels of experience.
B10. Clarity, robustness and quality of approach to continuity throughout the Project	Scored	0.32	B10.1	Bidders must submit proposals setting out their continuity plan for all stages of the project. The key matters to be addressed will include: • how any changes in personnel between their pre and post financial close teams will be managed and communicated; • describe how as part of the design development process they view Project Co's role in ensuring design continuity and knowledge transfer. This will include how they will achieve design team continuity throughout the whole design development, construction and operational phases considering the consortium team and design organisations, and the key personnel	To Pass, Bidders will be required to demonstrate that there will be continuity throughout the Project.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				working within each of those organisations. The continuity plan shall address proposals for the role of design staff on-site during the development and the Works phase; and • the submission should particularly address the issue of consistency of personnel throughout the project and the need for procedures to deal with knowledge transfer to ensure smooth transition when required.	
B11. Acceptable organisational diagrams for each stage of Project	Pass/Fail	n/a	B11.1	Bidders must submit organisation diagrams for the consortium including the lines of communication with the Board and other key stakeholders for each of the phases of the project including: • contract finalisation (appointment of Preferred Bidder to Financial Close); • construction and commissioning period; and • operational term.	To Pass, Bidders will be required to demonstrate a clear organisational structure for each stage of the Project.
B12. Clarity, robustness and quality of approach to health and safety	Scored	0.81	B12.1	Bidders must submit a detailed health and safety strategy which the Bidder proposes to adopt to comply with in fulfilling their health and safety obligations throughout the project, covering the following phases: • contract finalisation (appointment of	To Pass, Bidders will be required to demonstrate they will adopt a robust approach to health and safety.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Preferred Bidder to Financial Close); • construction and commissioning period; and • operational term. In particular, the proposals should address Project Co's leadership role and key project roles throughout and particularly in the delivery and management of the Project on a 24/7 operational site, addressing key issues such as: • The Boards requirements; • Operational continuity requirements of the RIE Facilities; • Obligations to connect to and maintain critical service connections; • Traffic management – construction and operational access/ egress; • Compliance with HaiScribe requirements; • Construction activity; • Linking to a live operational major health facility; • Proximity to live operational general hospital facility (24/7) and medical school; • Security issues; • Access and maintenance requirements of the project; • Pollution control; • Noise, dust, water egress, and vibration issues and the like; and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Details of business continuity plans.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B13. Acceptable approach to environmental, quality and health and safety management systems	Pass/Fail	n/a	B13.1	Bidders must submit proposals setting out how Project Co intends to set up, manage, maintain, work towards and gain accreditation of its environmental, health and safety and quality management systems including specific proposals on: • The systems to be developed and implemented; • How these systems will be put in place; • The process for the development of the systems; • Interim measures while the systems are being developed; and • Timescales for accreditation.	To Pass, Bidders will be required to demonstrate that they will adopt an acceptable approach to management systems.
			B13.2	As a minimum Bidders must submit proposals setting out the following aspects of their environmental, health and safety and quality management systems: • Proposed document management systems; • Verification procedures for design work; • Detailed change control procedures for each stage of the Project; • Procedures and a programme for carrying out Project reviews; and • Description of the procedures to co-ordinate and manage the design process including the interface between design teams and continuity of design team members (as set out in B10). In addition,	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				a statement of how and when design changes will be reviewed and commented on by Project Co/ Service Provider.	
			B13.3	Bidders must submit propoals demonstrating that they operate an accredited Health and Safety management system complying with the OHAS 18001 standard.	
B14. Clarity, robustness and quality of approach to management of design development including integration with the Board and its partners	Scored	0.16	B14.1	Bidders must submit proposals setting out : • Their approach to managing the Project's design development, with particular emphasis on development post Final Tender, including proposals for interface with specific sub-groups harmonising with the current Board Project structure. The submission should include a description of the procedures to co-ordinate and manage the design process and to interface with key stakeholders, including document management, verification of design, change control during design development and design reviews; and • The management and review structures and procedures that will be put in place by the Bidder to manage potential conflicts, delays, changes in the Board's goals and other issues at each key design stage of the Project.	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to management of design development including a commitment to working with the Board.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B15. Acceptable programme from appointment as Preferred Bidder to Financial Close	Pass/Fail	n/a	B15.1	Bidders must submit a week by week programme covering the contract finalisation period from appointment of Preferred Bidder until Financial Close with a detailed breakdown of the key tasks to be completed by the end of each week with the critical path and key milestones shown. Bidders shall supplement the programme with commentary on, as a minimum, the following matters: • Mechanisms that will be adopted to ensure that the critical path for the technical, legal and commercial activities will remain on programme, and therefore that the overall Project programme is maintained; • Confirmation of key inputs, timescales and required by dates for the Board to review/approve Bidder submissions during contract finalisation; • Confirmation that their overall programme to Financial Close, is achievable; and • Key risks to the Project proceeding on programme shall also be identified, with a brief commentary on how the Bidder proposes to mitigate each risk.	To Pass, Bidders will be required to submit a logical and deliverable programme.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C. Approach to Design & Construction					
C1. Clarity, robustness and quality of approach to meeting the stakeholders requirements in their design	Scored	2.64	C1.1	The Bidders must submit proposals setting out their approach to meeting the stakeholders requirements in their design. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Evidence that they are sensitive to the co-location of the RHSC and DCN and that they will take advantage of this arrangement to maximise their design; ii. Evidence that they are aware of the wide range of stakeholders associated with these departments and that they understand and will cater for all their requirements in their design; iii. Evidence that their bid will deliver a nurturing, engaged and safe community that supports the well being of all patients, carers, families, visitors and staff; iv. Evidence that their design will provide a healing environment that will assist the Board in its core obligation to	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				deliver clinical care to users of both the RHSC and DCN; v. Evidence that their design will include particular consideration of the proposed external spaces, therapy gardens and landscaping, communal patient areas for example quiet and television rooms, public areas; vi. Evidence that their design will adequately address security requirements; vii. Evidence that their design will fully incorporate infection control requirements and HAI Scribe; and viii. In particular for the RHSC and CAMHS, we would expect the Bidders to demonstrate how the design will be developed to achieve: i. Facilities that are a beautiful place with children and young people at the centre of a nurturing, engaged and safe community; ii. Facilities that are reassuring, relaxing, convenient and safe with the needs of children and young people and those with disabilities expressly addressed; and iii. Facilities that provide an	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				appropriate balance of internal and external play `areas. In relation to the DCN, we would anticipate Bidders shall demonstrate how similar qualities to the above (ix (i – iii) but also in addition, how the design will be developed to achieve a nurturing, quiet and relaxing environment for its patients.	
C2. Clarity, robustness and quality of approach to design quality	Scored	1.85	C2.1	Bidders must submit proposals setting out their approach to achieving design quality. This must be provided as set out in C2.1 – C2.3 below: Bidders must submit proposals setting out how the design will be developed to integrate the architectural, mechanical, electrical and civil and structural engineering aspects of the design to present a cohesive innovative design which meets all the Board's construction and stakeholders' requirements (including infection control and HAI Scribe requirements). The submission shall utilise all Mandatory Reference Design Requirements to deliver a solution across all disciplines.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			C2.2	Bidders must submit proposals setting out their design analysis of both the site and the Board's requirements as depicted in the Board's Construction Requirements. The review of the site shall identify, as a minimum, opportunities, constraints and access and planning issues.	
			C2.3	Bidders must submit proposals setting out a clear statement summarising what they understand to be the key strategic issues relating to the project and demonstrate how the design proposals have dealt with these specific project issues, and any impact their proposals will have on such matters.	
C3. Clarity, robustness and quality of architectural and landscape design	Scored	2.64		Bidders must submit proposals setting out their approach to architecture and landscape design. This should be provided as set out in C3.1 – C3.3 below:	
			C3.1	Bidders must submit proposals setting out their approach to architecture design. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. How the design will deliver world class architectural design practice in delivering Facilities that support the Board's clinical needs and a design	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				which provides a high level of creativity; ii. How the design will provide an ordered composition of building elements in a stimulating form that successfully combines good standards of space, height, form, scale and use of materials and colours / images with associated functional requirements and the surroundings; iii. How the design will address the interests of stakeholders, including (but not limited to) clinicians, patients (and their representatives, families and carers), health commissioners, Local Government, and the local community; iv. How the design will deliver architectural quality and demonstrates how this will be provided; v. How the design will deliver the lines of sight and views from windows which are suitable for children and young people; vi. How the design will provide age and ability appropriate art and way finding design which is integrated into the design solution; vii. How the design will fully consider all aspects of safety in all areas and a description of how risks have been removed through design innovations;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				viii. How the design will fully address control of infection and HAI Scribe; and ix. How the design will minimise cleaning and maintenance of all elements of the Facilities by choice of materials, layout and orientation and shows how such activities can be carried out safety and without disruption to clinical activities.	
			C3.2	Bidders must submit proposals demonstrating how they will deliver high quality architectural buildings, and high quality finishes and component parts. As well as the architectural drawings and supporting information, Bidders shall provide specific details in detailed specification format to include the following: i. Internal and external doors and door furniture, also showing proposed pattern of vision panels; ii. Washing and toilet facilities; iii. Reception desks and touchdown bases; iv. Communal patient areas, which include spaces such as playrooms, television rooms and quiet rooms v. External therapy gardens and external covered play and seating areas vi. Floor and wall coverings; vii. Natural and artificial lighting	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				particularly in key public areas, artwork and key clinical areas such as theatres; viii. Samples of worktops and wall cupboards shall be provided for approval by the Board; and ix. Juxtaposition of main external finishes / cladding.	
			C3.3	Bidders must submit proposals setting out their approach to external hard and soft landscaping (including courtyards and therapy gardens) which shows how the design will be developed for therapeutic use and how it provides patient and staff access and how it enhances the environment of the Facilities. The proposals should demonstrate how the principle elements of external landscaping will be designed. to: i. Complement the RHSC and DCN buildings and the neighbouring RIE; ii. Minimise the risk of vandalism and crime; iii. Facilitate security of pedestrians and avoided 'no-go' areas in their design. Ensure site safety and link with the Green Travel Plan; iv. Minimise maintenance and operation costs; v. Ensure easy maintenance and cleaning whilst minimising health and safety issues;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				vi. Provide appropriate fire safety routes for all users; vii. Incorporate SUDS and other sustainable features; viii. Incorporate art work; and ix. Incorporate lighting, heating, seating, canopy and wind protection arrangements which are appropriate for young children and less disabled people. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) those items listed in (i) – (ix) above.	
C4. Clarity, robustness and quality of approach to delivering innovation	Scored	2.64	C4.1	Bidders must submit proposals setting out their approach to delivering innovation. This should be provided as set out in C4.1 – C4.4 below: Bidders must submit proposals setting out where it will be, or has been possible to provide innovative solutions to meet the Board's requirements. Innovation in design can range from whole concepts of hospital planning, distribution of functions etc to the building solution (e.g. use of prefabricated units) to detail design of components, materials, spaces, use of technology and art etc. Bidders must show how their design reflects current and developing innovations	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				in healthcare delivery and construction generally and translate these into an innovative building solution.	
			C4.2	Bidders must submit proposals setting out how their design, using innovation, will optimise the sustainability of the Facilities. Bidders must provide details of their strategy to show how it will optimise energy, water and utility consumption, minimise waste production, implements a strategy to meet the Board's BREEAM requirements including carbon reduction and other positive activities described in the Board's Construction Requirements to provide a sustainable development.	
			C4.3	Bidders must submit proposals setting out how an innovative approach to the provision of ICT in the Facilities in line with the Board's Construction Requirements and FM Output Specifications has been delivered.	
			C4.4	Where areas of innovation are identified Bidders must submit supporting evidence, where possible, with examples from other schemes where this has proved successful. Bidders must provide information to show the benefit, cost and risk for each innovation so the Board can assess them separately.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C5. Clarity, robustness, and quality of approach to adaptability and flexibility.	Scored	2.64		Bidders must submit proposals setting out their approach to adaptability and flexibility. This should be provided as set out in C5.1 and C5.2 below:	
			C5.1	Bidders must submit proposals setting out an adaptability strategy which shall describe what features have been incorporated to facilitate future adaptation of use and/or expansion, technological changes, changes in national policy, national and local planning, clinical advancement and seasonal or future strategic variations in use. It is expected that particular reference shall be made to potential changes in the delivery of surgical and radio diagnostic services given the rapid evolution of developments in these disciplines. All design disciplines i.e. architectural, mechanical and electrical, structural and environmental, must be considered.	
			C5.2	Bidders must submit proposals setting out their approach to adaptability and flexibility. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. How the interior spaces may be re-arranged in future if a change of use were to occur;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				ii. How the building's services and external infrastructure have been designed to allow this adaptability; iii. How the building structure and envelope, services, partitioning, ceiling, and flooring systems and construction technique has been designed to allow this adaptability; iv. How the main electrical installations can accommodate changes over and above the 25% capacity increase (requested in Section 3 Board's Construction Requirements) with minimal structure disruption; and v. How the environmental services strategy will co-ordinate with the adaptability and flexibility strategy.	
C6. Clarity, robustness and quality of way finding and signage proposals	Scored	1.06	C6.1	Bidders must submit proposals demonstrating their way finding strategy. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) how it has been developed to: i. Suit the needs of the particular patient mix for the Facilities i.e. children, young people and adults using different services, as well as staff and visitors; ii. Include internal and external signage	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				and signage outside the site boundary relevant to the Facilities. External signage shall include proposals for the wider RIE site, pedestrians, vehicles and street signage; iii. Integrate with the art strategy and lighting strategy for the Facilities; iv. Take cognisance of patient journey times and take steps to minimise such journey times; v. Minimise the transmission of micro-organisms and separates clean and contaminated traffic and material streams; vi. Include hand hygiene signage; vii. Include no smoking signage; viii. Make reference to sample or exemplar site information provided by The Board; and ix. Make use of signage in the floor.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C7. Clarity, robustness and quality of interior design proposals	Scored	2.64		Bidders shall submit their interior design proposals. This must be provided as set out in C7.1 and C7.2 below:	
			C7.1	For both the RHSC and DCN sectors of the Facilities Bidders must submit proposals setting out how their design has been developed to include: i. Interior design proposals and illustrations for each distinct area of the Facilities, paying particular attention to the interior design solutions for public, patient and key staff areas; ii. Communal patient areas that are light, spacious and provide a welcoming atmosphere and which are domestic in design and ambience with the main entrance being immediately apparent; iii. Public areas which are restful, open and well lit with natural light and have views out to landscaped spaces that add quality and orientation; iv. An open and friendly environment, that shall ensure privacy and dignity for patients, family members and visitors when required; v. The incorporation of art in the proposals. Bidders shall provide the name(s) of the artists whom will undertake the work;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				vi. Integration with their lighting strategy and equipment strategy; vii. Integration with maintenance, cleaning, operation and sustainability; viii. Integration with way finding and signage proposals and how the way finding and signage within the RHSC and DCN links with the way finding within the existing RIE; ix. How the interior materials within the Facilities match the furniture, furnishings and equipment being procured by the Board; and x. Facilities which have a safe and secure environment which is not created via visible security features e.g. security cameras. Safety in design shall also take consideration of anti-ligature, child safety, and Child and Adolescent Mental Health Service whilst maintaining access and ambience. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) those items listed in (i) – (x) above.	
			C7.2	Bidders must submit proposals setting out how their interior design for the RHSC has been developed to provide: i. Age and ability appropriate signage throughout the Facilities;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				ii. A nurturing, relaxed and safe environment in the patient, communal and public areas; and iii. Furniture, windows and lines of sight which are appropriate for young children and children in pushchairs and wheelchairs.	
			C7.3	Bidders must submit proposals setting out how their interior design submission for the DCN provides a nurturing, quiet and relaxed environment in the patient, communal and public areas.	
C8. Clarity, robustness and quality of M&E engineering design proposals	Scored	1.06		Bidders must submit proposals setting out their approach to M&E engineering services design. This must be provided as set out in C8.1 – C8.3 below:	
			C8.1	Bidders must submit proposals setting out the engineering services design for each element of the scheme in sufficient detail to demonstrate compliance with the Board's Construction Requirements. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. An engineering design, control and operational philosophy statement; ii. Details of principal M&E system selections;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				iii. The definition of plant areas and zones both internal and external to the Facilities; and iv. Schematics and written proposals for major plant provision.	
			C8.2	Bidders must submit proposals setting out how their design will be developed to include the following: i. Building services which support the Board's business, safety and security and life critical services under supply failure scenarios. Specific details shall be provided relating to standby facilities and mains service redundancy; ii. An autonomous energy centre and associated plant; iii. How temperature, ventilation and comfort for occupants will be maintained in accordance with the minimum criteria and how, if possible, these criteria will be improved; iv. How the quality of the environment and prevention of sick building syndrome shall be ensured; v. How mechanical and electrical design is integrated with architectural, structural and civil aspects as outlined above in C2 and C4; vi. How sustainability has been incorporated into their design,	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				including details of the maintenance and operation philosophy for all mechanical and electrical equipment; vii. Proposals for external services, including details of the main routes (including proposed connections to existing services), intakes and off-site reliance of these services and how this interfaces with adjacent sites (this is also discussed in C18 below); viii. Details of the main source of heating energy; and ix. Details of mechanical and electrical innovations including costs as described in C4. The following information should be also be provided to help demonstrate the design proposals noted above, including: x. An environmental conditions / room provisions matrix for both mechanical and electrical services for each room in the Facilities; and xi. Major plant life cycle statements and design life, including an explanation of the Bidder's lifecycle philosophy to support the lifecycle costing analysis completed in the technical costs proforma;	
			C8.3	Whilst Bidders are required to undertake their own design, the Board has provided a	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis.	
C9. Clarity, robustness and quality of natural and artificial lighting proposals	Scored	1.06	C9.1	Bidders must submit proposals setting out their approach to natural and artificial lighting within the Facilities. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. The balance of natural and artificial light; ii. How the environment created by the lighting design will support the well being of patients, carers, visitors and staff; iii. How it will be functional for clinical use; iv. How it will produce an aesthetically pleasing environment; v. How it will be co-ordinated with the building structure and how it will integrate with other areas e.g. mechanical and electrical design, interior design and architecture; vi. How it will include sustainability and energy efficiency; vii. How the interior lighting philosophy will include room usage and warning	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				signs, night lighting, security emergency signage and emergency lighting, lighting control and wiring philosophy, standby lighting; and viii. How the external lighting philosophy will minimise light pollution for the neighbours including the RIE, assist to minimise vandalism, assist to improve security, and take account of local residents' needs.	
C10. Clarity, robustness and quality of energy management proposals	Scored	1.85	C10.1	Bidders must submit proposals setting out their approach to energy management. This should be provided as set out in C10.1 and C10.2 below. Bidders must submit an energy model, complete with supporting information, demonstrating how their design solution will achieve an optimum level of energy and utility conservation (linked with the requirement for a sustainable development in C4) and show that their design fulfils the following: i. The building energy performance will achieve a minimum of 6 credits for ENE.01 in the BREEAM assessment. ii. The water consumption for the Facilities will not exceed 170,000 litres/bed/annum (Part 6 Section 3: The Board's Construction	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Requirements); iii. 20% of energy is provided by renewable energy sources (Part 6 Section 3: The Board's Construction Requirements); and iv. The inclusion of passive design strategies for ventilation and thermal control. The environmental control system is to be co-ordinated and integrated with the design of the structure and the occupied areas in order to maximise the control and flexibility of the installations. In addition Bidders must submit an analysis of their design solution which demonstrates energy consumption proposals along with cost estimates of specific measures or innovations to be introduced.	
			C10.2	For information purposes only in addition to the model referred to above a dynamic thermal energy model is to be submitted which should comply with the parameters set out in Appendix F of the ITPD Volume 1.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C11. Clarity, robustness and quality of equipment proposals	Scored	1.06	C11.1	Bidders must submit proposals setting out their approach to equipment. This must be provided as set out in C11.1 and C11.2 below. Bidders must submit the following: : i. A commentary showing how the Group 1 Equipment scheduled by the Board varies from their own assessment of Group 1 Equipment needs. This shall be done by providing a mark-up of the Group 1 Equipment included in Equipment Schedule contained in Volume 3 of the ITPD. It should be noted that the quantity of Group 1 Equipment specified by the Board is considered to be a minimum; ii. A commentary on any aspect of the proposed equipment responsibilities regime suggested in paragraph 2.15 (Equipment) of the ITPD Volume 1. that is not considered to represent best value to the Board, and suggestions as to alternative profiles of responsibility, if any, that may enhance this; iii. A commentary setting out their proposals to select equipment suppliers and how the required level of quality is to be achieved in the equipment for which they will be	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				responsible for supplying and any improvement in the level of quality being proposed. Samples of worktops and wall cupboards shall be provided for approval by the Board to support this; and iv. Their approach to working alongside the Board to allow the Groups 2A, 2B and 3 Equipment to be installed and how this process will be managed.	
			C11.2	Bidders must submit a fully priced Schedule of Group 1 Equipment, the total sum for which should be clearly identifiable in the Technical Cost Proforma requested at C29 below.	
C11A Compliance with minimum level of Group 1 Equipment	Pass / Fail	n/a	C11A.1	Bidders must provide confirmation that they will comply with the minimum level of Group 1 Equipment as set out in the Equipment Schedule and Equipment Responsibility Matrix.	
C12. Compliance With Mandatory Reference Design Requirements	Pass / Fail	n/a	C12.1	Bidders must submit proposals demonstrating how their design complies with the Mandatory Reference Design Requirements.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C13.Acceptable approach to achieving planning permission	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to achieving planning permission. This must be provided as set out in C13.1 and C13.2 below.	To Pass, Bidders will be required to demonstrate that the granting of approvals for the scheme will be achieved
			C13.1	Bidders must submit proposals demonstrating compliance including a methodology for achieving planning approval accordance with paragraph 2.17 of Volume 1 of the ITPD. This should include the following: i. Community requirements; ii. Policy of the local planning authority; iii. Development Framework requirements; and iv. "Good neighbourliness".	
			C13.2	Bidders are required to (in conjunction with the Board) participate in planning consultation meetings with the City of Edinburgh Council regarding planning requirements. From these consultations Bidders must submit evidence to demonstrate that the granting of approvals for the scheme will be achieved in the Preferred Bidder stage and confirm any perceived obstacles / project risks (both known and unknown) in this regard shall be clearly drawn to the Board's attention.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C14. Acceptable vertical and horizontal movement strategy	Pass / Fail	n/a		Bidders must submit proposals setting out their vertical and horizontal movement strategy. This must be provided as set out in C14.2 – C14.3 below.	
			C14.1	Bidders must submit proposals setting out a coherent strategy which shows how their design has been developed for managing different categories of traffic and materials within the Campus Site. This shall include the movement of people and vehicles and the distribution of supplies and waste and the separation of clean and contaminated traffic and materials during transportation, storage and at drop off points.	
			C14.2	Bidders must submit proposals setting out how their design has been developed to minimise travel time and distances for patients, staff, and material transmission of micro-organisms either through airborne or other means to support and segregate a natural flow of pedestrian and vehicular traffic.	
			C14.3	Bidders must submit proposals setting out how their design has been developed to include a strategy for the following: i. Wheelchair users, less able users and transportation of small children and babies that will use the Facilities;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				ii. Incorporation of fire fighting lift(s) to maintain evacuation use for the less able, small children and babies in an emergency situation; and iii. The route required by people and materials from the helipad, the RIE and the Facilities.	
C15. Acceptable ICT strategy and Bidders proposals, compliant with Board's requirements	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to a compliant ICT strategy. This must be provided as set out in C15.1 – C15.4 below.	
			C15.1	Bidders must submit proposals setting out their ICT strategy and demonstrating an understanding of the Board's requirements for information management and technology (M&T).	
			C15.2	Bidders must submit proposals setting out a detailed methodology demonstrating how it will ensure compliance with the Board's Construction Requirements, define clear interfaces of responsibility as necessary, and how they will take overall responsibility for the coherence and compatibility of systems such that they will operate to suit the Board's needs.	
			C15.3	Bidders must submit proposals setting out the number, location size and specification	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				of IT / communications rooms.	
			C15.4	Bidders must submit proposals setting out how the Board's routing, fire suppression, ventilation and connectivity to the RIE requirements has been specifically addressed.	
C16. Acceptable fire planning strategy	Pass / Fail	n/a		Bidders must submit proposals setting out their fire planning strategy. This must be provided as set out in C16.1 and C16.2 below.	
			C16.1	Bidders must submit proposals setting out their strategic fire strategy, demonstrating how the design will be developed to consider fire compartmentation and horizontal and vertical evacuation strategies.	
			C16.2	Bidders must submit proposals setting out how their fire planning strategy has been developed. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. The implications on staff and users in the event of a fire; ii. A clear understanding of the policies and principles underlying fire safety in NHS premises, compliance with NHS	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				polices and principles and full agreement and coordination with Lothian and Borders Fire and Rescue Service, The CEC Council's Building Control Department and the Board's Fire Officer; iii. Compliance with: The Building (Scotland) Regulations 2004 and The Building (Scotland) Amendment Regulations 2011, SHTM 81 and SHTM 82; iv. How a Fire Engineering solution has been developed (if it has been proposed), to what extent it has been agreed with the regulatory authorities and how the Board will not be exposed to any additional risks (programme, quality or cost) should the solution need to be amended or abandoned during the course of the development and finalisation of proposals; v. Integration of their fire strategy with the fire strategy for the RIE Facilities to ensure they are compatible and operate in conjunction and how the fire strategy issues at the Link with the RIE Facilities are to be addressed; vi. Details of external and internal access and circulation routes, including a safety and security statement for each element of the scheme with particular reference to the different patient types	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				using the Facilities; and vii. Details of how the particular issues in the surrounding areas of high fire risk such as the helicopter landing pad are to be addressed.	
C17. Acceptable structural design proposals	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to structural design. This must be provided as set out in C17.1 - C17.3 below.	
			C17.1	Bidders must submit proposals setting out a statement of the structural design philosophy which shall demonstrate how their design has been developed including a methodology for ensuring a safe, aesthetically pleasing and durable structure.	
			C17.2	Bidders must submit proposals relating to the following elements: i. Substructure; ii. Structural frame solution, including grid arrangements; iii. Ground, suspended floor slab and roof construction; iv. External wall and internal partition construction; v. Fire protection strategy and proposed methods to be adopted ; and vi. Methods for dealing with floor penetrations both during new build	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				works and to accommodate future potential needs.	
			C17.3	Bidders must submit the following: i. A schedule and/or drawings demonstrating the dead and imposed loading design criteria (both uniformly distributed and concentrated loads) adopted for all areas of the Facilities; ii. Specification of construction and materials to be utilised in the hard external works e.g. roads, pavements etc.; iii. Details of their proposals for co-ordinating structure with space requirements and distribution of services taking into account maintenance and replacement during the operational life of the buildings; iv. Details of opportunities for the future expansion of Clinical Services and Non-Clinical Services. The Bidders shall ensure that the physical arrangement of the Facilities allows for growth and change of clinical services in the future, as far as is practical for example partition moves and additional service runs both vertically and horizontally. The cost implications of structural solutions to future proof the Facility by creating 'soft spots' (refer also to C5 above) shall also be	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				included; and v. A detailed description of the design of the drainage system, taking into account matters such as the design itself, allowable discharge into the public sewers, the need or otherwise for surface water attenuation and the incorporation of drainage to existing buildings within the site drainage proposals.	
C18. Acceptable services, utilities and infrastructure proposals	Pass / Fail	n/a	C18.1	Bidders must submit proposals setting out their mains service infrastructure strategy for the site, and defines principal service routes external to the buildings. This shall also demonstrate adequacies of capacities including details of these provided by Utility providers.	
C19. Acceptable approach to achieving required BREEAM rating	Pass / Fail	n/a	C19.1	Bidders must submit proposals setting out their approach to achieving the required BREEAM rating. This must be provided as set out in C19.1 and C19.2 below. Bidders must submit a draft BREEAM assessment of their proposals with supporting commentary. Bidders shall demonstrate how they will achieve, as a minimum, a “Very Good” rating in line with the requirements for healthcare facilities as	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				set out in the BREEAM Scheme Document for New Construction (SD5073) 2011.	
			C19.2	Where assumptions with respect to certain elements within these assessments have to be made (i.e. such details that would ordinarily be developed during the Preferred Bidder or post Financial Close period) the basis for these assumptions, including substantiation, must be set out in the Bidders proposals.	
C20. Acceptable post Preferred Bidder stage design development proposals and design programme	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to design development and design programme. This must be provided as set out in C20.1 and C20.2 below.	To Pass, Bidders will be required to demonstrate clear proposals setting out a robust process, supported with a logical and deliverable programme, for the development process both up to, and beyond, Financial Close.
			C20.1	Bidders must submit proposals setting out their approach to be adopted to manage the design process (taking account of the design review procedures to be implemented). For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Further development of 1:500, 1:200 and 1:50 design drawings and other design details and how these will be developed in conjunction with the Board's project team, user groups, specialist advisers and other project	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				stakeholders, to achieve sign off to the proposals; ii. Further development of the specifications and engineering related drawings and how these will be developed in conjunction with the Board's project team to achieve sign off of the proposals; iii. The anticipated level of involvement that the Board will have in the design development process, and the number of main design iterations anticipated; iv. Outline proposals for change control, confirmation of technical queries and other design related management tools; and v. Further development of interior design proposals to the satisfaction of the Board incorporating patient groups.	
			C20.2	Bidders must submit a design programme to Financial Close and thereafter to design completion. This shall: i. Show the proposed programme for the development of the design drawings and specifications (supplemented by samples and models as appropriate) and other technical schedules to the NPD Project Agreement; ii. Clearly indicate the expected number of design drawings and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				specifications; iii. Clearly define periods allowed for the Board's consideration of proposals; and *iv.* Demonstrate how and when sign off of the Board's Construction Requirements will be achieved in this period by the Preferred Bidder, and how this sign off relates to development and sign off of Project Co Proposals.	
C21. Compliance with Board's Construction Requirements	Pass / Fail	n/a	C21.1	Bidders must confirm their compliance with the Board's Construction Requirements. If as their design has been developed there are specific areas of the Board's Construction Requirements that Bidders would seek to change, these shall be scheduled and provided in support of the statement. The Board shall not be required to accept any proposed amendments.	
C22. Acceptable design life proposals	Pass / Fail	n/a	C22.1	Bidders must submit a schedule of design life proposals against the elements listed in section 5.1 (Schedule of Life Expectancies) of the Board's Construction Requirements.	
C23. Acceptable construction	Pass / Fail	n/a		Bidders must submit proposals setting out their construction programme and approach	To Pass, Bidders will be required to demonstrate a

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
programme and approach to monitoring				to monitoring. This must be provided as set out in C23.1 and C23.2 below.	logical and deliverable construction programme supported with a robust process for programme management.
			C23.1	Bidders must submit a high level programme, for the Works, comprising a network and linked bar chart programme covering all of the main and key elements of design, construction, testing, commissioning and completion and covering the period from Financial Close to Post Completion Commissioning. The programme must include as a minimum, the following information: i. Sequencing of activities showing logic links, restraints and constraints; ii. Key activity durations; iii. Critical paths, including the identification of critical dependencies of activities and float; iv. Key and other target milestones; v. Planning approval, and other statutory consents; and vi. Proposed Relevant Service Transfer Dates.	
			C23.2	Bidders shall submit proposals setting out how they shall manage and monitor the programme, including their approach to minimising the effects of delays and unforeseen circumstances.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C24. Clarity, robustness and quality of construction methodology	Scored	1.85		Bidders must submit their construction methodology proposals. This must be provided as set out in C24.1 - C24.10 below.	
			C24.1	Bidders must submit proposals setting out in sufficient detail how they will deliver the development including their construction strategy, proposals and method statements. Bidders shall address in detail how the Works phase of the project will be managed including a methodology covering day to day management.	
			C24.2	Bidders must submit proposals setting out in sufficient detail how they shall mitigate the egress of water, dust, debris or any microbiological contamination out of the Site and into adjacent buildings i.e. how they will ensure they are a considerate contractor.	
			C24.3	Bidders must submit proposals setting out in sufficient detail how they will follow the provisions of Sections 60 and 61 of the Control of Pollution Act 1974, with reference to the control of noise due to any demolition or construction works in particular for works adjacent to an occupied property i.e. RIE and other occupiers of the wider estate.	
			C24.4	Bidders must submit proposals setting out in	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				sufficient detail how they will not only adhere to legal obligations but how they will ensure that "at all times the requirements and reasonable wishes and safety of the immediate neighbours to the Campus Site (including the Royal Infirmary of Edinburgh, Little France site) are respected" with particular consideration to key locations such as A&E and operating theatres.	
			C24.5	Bidders must submit proposals to set out in sufficient detail how they will ensure that they will integrate with and not inhibit the RIE pedestrian, vehicular, cycle, service vehicular and emergency vehicular movements, access routes and parking during construction and during operation of the Facilities. The submission must set out how they will ensure site safety at all times.	
			C24.6	Bidders must submit proposals, in sufficient detail, setting out how continuity of utility supplies and operational continuity of the immediate neighbours is to be maintained at all times. The Bidders submission shall also provide outage protocols in case these safeguards fail to protect the neighbours	
			C24.7	Bidders must submit proposals, in sufficient detail, setting out a detailed methodology demonstrating their proposals for the safe and compliant disposal of surplus excavated	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				material, all building spoil, demolition waste and rubbish.	
			C24.8	Bidders must submit proposals of their site office set up. This shall describe in particular how they are to be serviced and how safe access and egress will be provided.	
			C24.9	Bidders must submit proposals setting out in sufficient detail their approach to storage of materials. This shall describe in particular how materials will be delivered to, stored, and then transferred to the Site for incorporation in the Works.	
			C24.10	Bidders must submit proposals setting out in sufficient detail their construction phasing and access methodology which shall demonstrate how the proposals have been developed to address the Site constraints and interfaces with the wider site. Bidders must include their proposals for creation of a temporary construction access over the Yellow Area (as shown on Plan 2). Bidders must submit details of location of access and methodology for its construction. This will form part of the management procedures for the Works as regards satisfying town planning matters as detailed in the ITPD. Further details are set out in paragraph 1 (Construction Access over	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Yellow Area) of Section 1 of Part 1 of Appendix A of the Board's Construction Requirements.	
C25. Acceptable approach to commissioning and handover	Pass / Fail	n/a	C25.1	Bidders must submit proposals setting out a commissioning programme, supported by a methodology demonstrating how this will be developed and agreed in conjunction with the Board. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) how they will provide the following: i. Management of interfaces with the Board and the Board's contractors and other parties e.g. Consort for the Link Building and obtaining such other parties consents\approvals as required; ii. How they will carry out commissioning activities both before and after the Actual Completion Date; iii. Access for the Board during the Works including access for equipment installation (Groups 2A, 2B and 3) and the Board's Contractors; iv. A "zero defects" culture in order to deliver the scheme with few or no snagging items at the Actual Completion Date. Bidders shall outline a contingency plan for	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				investigating and rectifying any defects which could still occur despite all best endeavours of the Project Co. In addition proposals should be submitted outlining how snagging items will be closed out after the Actual Completion Date; v. Facilities handover including how they shall interface and assist the Board with their decanting, familiarisation and training for the Facilities and proposals on how they shall work closely with the Board in developing an occupation plan; vi. Facilities which are "Clinically Clean" to the satisfaction of the Board's Head of Service Infection Control. Bidders shall demonstrate within their response: ▪ How they propose to interface with the Board's Head of Service Infection Control to agree the process and standards required to achieve the appropriate level of clinical cleanliness for each location within the Facilities; ▪ How this will be managed in terms of the sign–off of the Facility and handover process; ▪ How this will conform with HAI Scribe; and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				▪ Details of any specialist contractors that may be used as part of this process.	
C26. Acceptable approach to quality and environmental management systems	Pass / Fail	n/a	C26.1	Bidders must submit proposals setting out their approach to construction quality and environmental management systems. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. Confirmation that they will complete the Works in accordance with the requirements of BS EN ISO 9001 and 14001or any equivalent standard; ii. Details of proposed quality assurance and environmental management systems (i.e. a system synopsis); iii. Details of their approach to developing the quality and environmental management systems, including key dates; iv. Where individual quality and environmental management systems of the designers, contractor, service provider and Project Co are to be used, a statement regarding how these separate systems will be integrated to form a coherent overall quality management system. For the avoidance of doubt, the Board requires Project Co (in addition to their	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				sub-contractors) to adopt and implement a compliant system; v. Details of their approach for monitoring quality during construction (this may be by reference to a similar system implemented on a similar scheme); i.e. compliance with current revisions of BS 8000: Series “Workmanship on Building Sites, BS 5606:1990 “Guide to Accuracy in Building”. and other activities based on Good Industry Practice current at the time, as a minimum; vi. Details of their approach for auditing the quality and environmental management systems. This shall include details of the independent, internal and external audits of Project Co and its sub-contractors; and vii. A description of how the proposed systems will integrate with their strategies for risk mitigation.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C27. Acceptable approach to health and safety management	Pass / Fail	n/a	C27.1	Bidders must submit proposals setting out their health and safety management system. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. Confirmation that they will adopt and implement an accredited health and safety management system complying with the requirements of OHAS ISO 18001. For the avoidance of doubt the Board requires that Project-Co adopt and implement a compliant system; ii. Details of all proposed designers, sub-contractors, and suppliers confirming that they operate and accredited health and safety management system complying with OHAS 18001 standards covering all aspects of the project as applicable. Copies of current certificates from an accredited third-party assessment body showing that systems are compliant should be provided; iii. Details of the approach for auditing designers, contractors, sub-contractors and suppliers of their health and safety management systems. This should include details	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				of internal, external and independent audits of Project-Co; iv. Proposals for managing occupational health that will be implemented; v. Key dates for development of the system; vi. Safety in design and how Bidders have removed risks through design innovations; vii. Potential constraints on their Works activities when considering the health and safety of their immediate neighbours and other members of the public that may be affected by the Works. This shall include construction traffic management plan within the Campus at Little France and restrictions on the movement of water, dust, vibration, noise and micro-organisms; viii. How any risks to health and safety will be managed and mitigated throughout the Works; ix. How they plan to deal with the potential occurrence of below ground services crossing the Site, in addition to the removal of other below ground obstructions that may still be present from previous demolition works; x. Methodology for the use of	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				overhead cranes; xi. The removal of waste material; xii. Compliance with HAI Scribe; xiii. Storage, transportation and handling of gas cylinders (for construction use); and *xiv.* How their proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with HTM 2025 and SHFN 30.	
C28. Acceptable approach to compliance with CDM regulations	Pass / Fail	n/a	C28.1	Bidders must submit proposals setting out their approach to achieving compliance with the CDM regulations. This must be provided as set out in C28.1 and C28.2 below. Bidders must submit proposals setting out how they will comply with the requirements of the Construction (Design and Management) Regulations 2007. Particular reference shall be made to Project Co's role as Client, in addition to proposals to cover discharging the duties of CDM Coordinator, Designer and Principal Contractor under the Regulations. Bidders shall also include the methodology to demonstrate how they will deal with potential commercial and other conflicts between their constituent parts with respect to compliance with the Regulations and shall provide the following:	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				i. A competency submission for the individual who will be leading the role of CDM co-ordinator, in accordance with CDM ACOP L144 “Managing Health and Safety in Construction”; ii. A Health and Safety document to identify how the requirements of Appendix 4 of the ACOP L144 “Managing Health and Safety in Construction” will be applied on the project; iii. The format of the Pre- Construction Information relating to the project to address the requirements of Appendix 2 of the CDM ACOP L144 “Managing Health and Safety in Construction”; iv. The contents and structure of the Construction Phase Plan relating to the project to address the requirements of Appendix 3 of the CDM ACOP L144 “Managing Health and Safety in Construction”; v. Details of the induction process to address the requirements of section 184 and 185 of the CDM ACOP L144 “Managing Health and Safety in Construction”; vi. The format to be used for the Health and Safety File to address the requirements of section 263 of the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				CDM ACOP L144 “Managing Health and Safety in Construction”; and vii. Details of the process for managing health and safety in Design including hazard elimination and risk reduction, principles of prevention, provision of information and management of the Design process as required by the CDM ACOP L144 “Managing Health and Safety in Construction”.	
			C28.2	Bidders must submit proposals setting out how they have complied with the CDM duties during the Dialogue Period and provide a design risk assessment which is to be updated as the design is progressed.	
C29. Robustness of technical costs	Pass / Fail	n/a	C29.1	Bidders must submit fully completed technical cost proformas contained in the ITPD. All information requested must be provided. Bidders’ completed proformas shall be provided in the same MS Excel format to allow direct comparison between bids.	To Pass, Bidders will be required to demonstrate that their technical costs are robust for the scope of works to be delivered.
C30. Acceptable list of summary assumptions, clarifications and derogations	Not Scored	n/a	C30.1	Bidders must submit a consolidated schedule of all assumptions, clarifications and qualifications made in respect of their ITPD Bids. Whilst it is encouraged that such references are also made in the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				appropriate locations throughout Bidders' submissions, it is a mandatory requirement of the ITPD Submission that all such matters are also summarised in a single location.	
C31. Acceptable Interface Proposals	Pass / Fail	n/a	C31.1	Bidders must submit proposals setting out their approach to meeting the interface issues as described in Appendix A of the Board's Construction Requirements (subject to the conditions set out in Clause 9 (Nature of Land Interests) including without limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement).	

Appendix AP1.1 – Design Deliverables

Appendix AP1.1	**Design Deliverables** Bidders shall provide the following design submission requirements (as given in the Volume 1 of the ITPD): **1. Project Overview** 1.1 - Bid Drawings Schedule **2. Approach to Design & Construction - Architectural & Landscaping Design** 2.1 - Architectural Drawings Schedule 2.2 - Outline Architectural Specification supporting the design concept and setting out the proposed materials, finishes and components to be used. Outline Specification shall be included for all components as detailed in the BCIS Elemental Analysis 2.3 - Development Control Plan 2.4 - 1:1000 Site Plans 2.5 - 1:500 Location/Site Plan 2.6 - 1:200 Site Layouts 2.7 - Landscaping Proposal Specifications 2.8 - Landscaping Proposal Drawings 2..9 - 1:200 Architectural general arrangement floor plans, sections and elevations 2.10 - 1:500 Architectural departmental adjacencies 2.11 - 1:100 Architectural elevations including building elevation/facade showing appropriately rendered:-fenestration, exterior materials, louvers and cast shadows 2.12 - 1:100 Architectural sections denoting floor to ceiling heights, suspended ceilings, raised access floors and floor levels 2.13 - 1:100 Departmental and 1:50 room layouts 2.14 – 1:200 Architectural drawings detailing (I) movement strategy, (ii) user flow diagrams at all principal circulation locations, (iii) movement interfaces and (iv) analysis of key nodal points. 2.15 - 1:50 Architectural sections through Roof and Plant Room

2.16 - 1:100 Architectural proposals relative to the clinical requirements and infection control.

2.17 - 1:200 Architectural drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code.

2.18 - DDA Proposals including drawings, analysis and proposals.

2.19 - AEDET assessment drawings

2.20 - 1:50 Architectural design response detailing interfaces with existing RIE

2.21 - 1:100 Architectural drawings and visualisations for the Pod proposals

2.22 – 1:50 Architectural elevations and visualisations showing the Entrances

3. Approach to Design & Construction - Interior Design Proposals

3.1 - Quality, appropriateness and proposals for RHSC interior design supported by architectural drawings of how the layout and the design proposed addresses:

3.1.1 - Signage

3.1.2 - Patient, communal and public areas

3.1.3 - Appropriateness of facilities for users

3.2 - Loaded 1:50 room layout drawings for the RHSC indicating interior design proposals and demonstrating the coordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services.

3.3 - Quality, appropriateness and proposals for DCN interior design supported by architectural drawings of how the layout and the design proposed addresses:

3.3.1 - Signage

3.3.2 - Patient, communal and public areas

3.3.3 - Appropriateness of facilities for users

3.4 - Loaded 1:50 room layout drawings for the DCN indicating interior design proposals and demonstrating the coordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services.

3.5 - Internal Perspectives at eye level that demonstrate form and setting of the key internal architectural areas,

	distinguishing or innovative features which demonstrate the design quality of the proposals 3.6 – Drawings and visualisations to demonstrate the integration of Artwork into the interior design concept. 3.7 – Sample boards to demonstrate the proposed interior finishes, colour and textures. Boards to include RHSC and DCN wards, the Pod, Atrium and CAMHS. **4. Approach to Design & Construction - Civil & Structural Proposals** 4.1 - Structural Drawings Schedule 4.2 - Civil Engineering Drawings Schedule 4.3 - Outline Structural Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as in accordance with the NBS Specification 4.4 - 1:500 Site plan layout indicating all manholes, gully positions for all site drainage 4.5 - 1:500 Site plan layout indicating all positions for surface water drainage 4.6 - 1:500 Site plan layout indicating all positions for foul water drainage 4.7 - 1:500 Site plan layout indicating all positions for water mains 4.8 - 1:500 Site plan layout indicating all positions for roads, footpaths and finished levels 4.9 - 1:100 structural general arrangement foundation plans 4.10 - 1:100 structural general arrangement plans including floor and roof plans indicating all column and beam locations and sizes and all structural elements 4.11 - 1:100 structural sections through the building showing structural elements and service zones 4.12 - Confirmation of Geotechnical surveys, reports, studies undertaken in addition to the Geotechnical survey in the data room 4.13 - Confirmation of other site surveys, reports, studies undertaken in addition to the information already located in the data room 4.14 - Confirmation of any vibration monitoring / prevention proposals. 4.15 - 1:100 drawings for Helipad 4.16 - Outline Structural Specification supporting the Helipad design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification

	5. **Mechanical & Electrical Services** 5.1 - Building services (mechanical) drawings schedule 5.2 - Building services (electrical) drawings schedule 5.3 - Outline Building services (mechanical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification 5.4 - Outline Building services (electrical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification 5.5 - 1:500 site plan layout indicating all mechanical services , utilities supplies, natural gas mains, water supply and fire mains 5.6 - 1:500 site plan layout indicating all electrical utilities supplies, electrical mains, data and communications ducts 5.7 - 1:200 internal services concept schematic and zoning plans for both heating and ventilation; indicating of heating and ventilation in each room 5.8 - 1:100 mechanical general arrangement floor plans showing extent of services, distribution routes, mechanical plant acoustic treatment, plant areas, etc 5.9 - Mechanical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed : 5.9.1 - Plant strategy 5.9.2 - Distribution strategy 5.9.3 - Incoming gas and water services (including metering and sub-metering) 5.9.4 - Environmental design considerations 5.9.5 - Heat sources 5.9.6 - Natural Ventilation strategy 5.9.7 - Mechanical Ventilation strategy 5.9.8 - Mechanical cooling 5.9.9 - Mechanical air conditioning

	5.9.10 - Specialist ventilation strategy 5.9.11 - Domestic hot and cold water system 5.9.12 - Space Heating System 5.9.13 - Space Cooling System 5.9.14 - Building Energy and Management System 5.9.15 - Dry Risers 5.9.16 - Soil and Waste System (above and underground) 5.9.17 - Rainwater pipework and distribution 5.9.18 - Specialist drainage 5.9.19 - Sanitary ware and appliances 5.9.20 - Dry Risers 5.9.21 - Natural Gas Installations including Laboratory Gases 5.9.22 - Medical Gas Installations 5.9.23 – Pneumatic Tube System 5.9.24 - Mechanical Commissioning Strategy 5.10 - 1:100 electrical general arrangement floor plans showing extent of services, distribution routes, plant areas, etc 5.11 - Electrical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed: 5.11.1 - Incoming electrical services 5.11.2 – Metering and Sub-metering 5.11.3 - Mains distribution including standby generation facilities 5.11.4 - Earthing, Bonding and Lightning protection 5.11.5 - Containment systems 5.11.6 - Small power installation 5.11.7 – Lighting and Emergency Lighting

	5.11.8 - Specialist lighting 5.11.9 - Lighting control systems 5.11.10 - Uninterruptible Power Supplies 5.11.11 - Telecommunications and I.T. 5.11.12 - Nurse Call System 5.11.13 - Fire Detection and Suppression System 5.11.14 - Staff Attack / Induction Loop 5.11.15 - Security system 5.11.16 - Access Control system 5.11.17 - CCTV system 5.11.18 - Public address system 5.11.19 - Digital TV and Radio Installation 5.11.20 – Patient / Equipment Tagging 5.11.21 – Induction Loop 5.11.22 – Bedhead Services 5.11.23 - Electrical Commissioning Strategy 5.12 - 1:50 mechanical and electrical services sections to illustrate use of ceilings, natural daylight, ventilation strategies, cooling and heating strategies, lighting strategy, acoustic strategy, specialist installations strategy, services concept **6. Lift Provisions** 6.1 - Lift and Escalator Drawings Schedule 6.2 - Outline Building Services (lift and escalator provision) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification. Traffic flow analysis to be included. **7. Environmental Services and Energy Management Strategy**

	7.1 - Natural Ventilation drawings and proposals **8. Fire Strategy** 8.1 - 1:100 Fire Strategy drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code. 8.2 - Outline Fire Strategy Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification **9. Security Strategy** 9.1- 1:100 Security drawings in support of security strategy and how the security proposals support the design concept 9.2 - Outline Security Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification **10. Acoustic Strategy** 10.1 - Outline Acoustic Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification **11. Adaptability, Flexibility and Expandability Strategy** 11.1 - Architectural adaptability drawings in support of the overall adaptability strategy. 11.2 - Strategy and drawings showing how the design of the new RHSC and DCN demonstrates innovation, flexibility, consideration of whole life design and is capable of absorbing reasonable change in the future without excessive public, patient or clinical disruption.

AP1.2	**Specifications** Bidders shall provide specific details on their proposed suite of specifications for the Works. These details shall include, but not be limited to the following: i. The industry recognised specifications proposed, with specific commentary on the extent of application of those to each main discipline (civil / structural, M&E, architectural etc); ii. Inclusion of either Project specific specifications for each main discipline, or example specifications used on other projects that are representative of the level of detail and clearly demonstrate the proposed level of quality that will apply to this scheme: and iii. A statement confirming that all such specifications (including fully completed framework specifications) will be fully drafted by the Preferred Bidder prior to Financial Close. For the avoidance of doubt, the Board is expecting Bidders to adopt both general, and where required, specific specifications to cover all components, materials, workmanship etc. For example the NBS framework could be utilised for mainstream building elements, however may need to be supplemented by specific standards and specifications relevant to particular Bidder proposals (e.g. piling, steelwork erection, infrastructure works).

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
D. Approach to Facilities Management					
D1. Clarity, robustness and quality of approach to management and administration of the Services and Contract	Scored	2.50	D1.1	Bidders must submit proposals setting out their proposed approach to managing and administering both the Services and the NPD Project Agreement itself. The Bidder is also required to provide a detailed proposal for the management, liaison and interfacing with the Board and the other Board service providers, these being Authority Parties. The importance to the Board of a holistic approach to the delivery of Services under the NPD Project Agreement cannot be overstated. The success of this will be dependent upon the quality of the general management of the Project. Bidders must submit the following: i. Full Method Statements for the management and administration of the Project Agreement and Services contained therein; ii. Location of the members of Project Co's administration team (i.e. on or off site); iii. Details of Bidder's proposed managerial structure, indicating the roles and responsibilities of each manager, supervisor and team member; iv. Details of how material changes to the management structure of Project Co will be	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				communicated to the Board; v. Details of how changes to working practices and / or Service delivery timings will be communicated to the Board; and vi. Details of how it is proposed to electronically manage Services management and administration to improve delivery.	
D2. Acceptable approach to integration with Board policies and operation	Pass / Fail	n/a	D2.1	Bidders must submit proposals setting out how they will comply, integrate and align their methodologies with the Board's policies, operation and procedures for the delivery of Services to the Facilities. This must include the following: i. Details of how it will ensure that the Services are delivered in accordance with the requirements of the Health planning Standards/NHS Requirements as detailed within paragraph 2.3 of Volume 3 of the ITPD.	
D3. Acceptable approach to ensuring quality management	Pass / Fail	n/a	D3.1	Bidders must submit proposals setting out their Method Statements for quality management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Description of any quality management systems or policies the Bidder has for the Services or would put in place for the Services; ii. Interface with the Board's Quality	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Assurance representatives iii. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate; iv. Proposals for carrying out audits, including the provision of their proposed audit programme for the Services; and v. Details of the Bidder's proposals for the escalation of activities following a major incident including interface with the Board.	
D4. Acceptable approach to ensuring environmental management	Pass / Fail	n/a	D4.1	Bidders must submit proposals setting out their Method Statements for environmental management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Interface with the client's environment representatives; ii. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate; iii. Details of their approach to ISO 14001 and shall describe any relevant experience of implementing such systems for other local authority or NHS clients of the Bidder; iv. Bidder's environmental policy statement, and shall state explicitly whether they have, or	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				are working towards developing an environmental strategy; v. Bidder's environmental management system, for their own organisation and/or for this project; vi. Structure of the environmental management system; vii. Details of the Bidder's approach and commitment to use of ethical and sustainable materials; viii. Proposals for carrying out audits, including the provision of an indicative audit programme for the Services; and ix. Details of the Bidder's proposals for the escalation of activities following a major incident, including interface with the Board.	
D5. Acceptable approach to ensuring health and safety management	Pass / Fail	n/a	D5.1	Bidders must submit proposals setting out their Method Statements for health and safety management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Procedure for disseminating hazard and safety warnings; ii. Methodology for the development and maintenance of the health and safety system relevant to the Services; iii. Interface with the Board's health and safety representatives; iv. Process for maintaining effective overall control of all site activities and the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				coordination of and liaison with all staff such that there are suitable integrated arrangements to allow compliance with the Health and Safety at Work Act 1974; v. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate: vi. Process to ensure constant access to health and safety professionals for both its own staff and the Board's nominated representatives; vii. Develop bespoke risk assessments recognising the services being delivered at the RIE and University on the wider Campus. viii. A copy of the Bidder's Health and Safety policy and a description of their approach to ISO 9001 and ISO 18001 or similar systems; ix. Proposals for carrying out audits, including the provision of an indicative audit programme for the Services; and x. Details of their proposals for the escalation of activities following a major incident including interface with the Board.	
D6. Acceptable approach to interfacing with the Board for undertaking	Pass / Fail	n/a	D6.1	Bidders must submit proposals setting out their approach to interfacing with the Board for undertaking works outside of access times. This must include the following: i. How they will ensure that any Works and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
works outside of access times				Services proposed to be undertaken outside agreed Access Times are agreed with the Board's Representative prior to commencement; and ii. How Works and Services will be managed and carried out in accordance with Permit to Work System.	
D7. Clarity, robustness and quality of approach to partnership and resources including liaison, resources and supply chain management	Scored	2.50		Bidders must submit proposals setting out their approach to partnership and resources including liaison, resources and supply chain management. This must be provided as set out in D7.1 – D7.3 below.	
			D7.1	Bidders must submit proposals setting out their approach to communications with the Board or its representatives. This shall include their proposed appropriate interfaces, frequency, nature and structure of meetings and reporting.	
			D7.2	Bidders must submit proposals setting out: i. Details of storage, maintenance and disposal of plant, equipment, materials, consumables, packaging and chemicals used in the delivery of the Services; ii. Details of suitably qualified staff and availability to meet the requirements of this NPD Project Agreement.	
			D7.3	Bidders must submit proposals setting out: i. Details of how the supply chain will be managed;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				ii. Proposed approach to delivery of Services through the supply chain; iii. Method of creating a successful integrated Services team.	
D8. Acceptable approach to business continuity planning	Pass / Fail	n/a	D8.1	Bidders must submit proposals setting out their approach to business continuity planning. This must include the following: i. Details of its approach to business continuity planning including: a. Its approach to the creation and maintenance of its own business continuity plan and disaster recovery plans for the required Services; b. The proposed approach to supporting the Board's "Business Continuity; and c. Details of who within the management team will have overall responsibility for business continuity. ii. Details of its proposed training procedures for staff who will participate in emergency procedures; iii. Details of its proposals for testing Business Continuity Plans at the property; iv. Details of its proposals for the escalation of activities following a major incident (and\ or at the request of the Board); v. Details of its own, internal Business Continuity (e.g. those plans related to its own survival as a business following a major incident); and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				vi. Details of the existing arrangements for testing its own, internal Business Continuity Plans.	
D9. Acceptable fire safety policies and procedures	Pass / Fail	n/a	D9.1	Bidders must submit proposals setting out their approach to fire safety policies and procedure. This must include the following: i. Details of its fire safety policy ii. Details of fire safety and security systems and procedures to be implemented on site including their approach to the Helipad. iii. Approach to ensuring an integrated fire safety strategy for the overall site, including appropriate interfaces with the Board and other Third Party organisations i.e. Authority Parties.	
D10. Clarity, robustness and quality of approach to performance and information management including; helpdesk, programme maintenance lifecycle, performance monitoring,	Scored	4.50	D10.1	Bidders must submit proposals setting out their approach to performance and information management, This must be provided as set out in D10.1 – D10.8 below. Bidders must submit proposals setting out details of their proposed computer-aided facilities management (CAFM) system and how they will provide an asset management and reporting capability. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. Call receipt and management and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
monitoring and records, regular reports and information requests, building services and statutory testing				escalation; ii. Management information; iii. Reporting; iv. Incident management; v. Alarm management; vi. Maintenance scheduling; vii. Asset data maintenance; viii. Helpdesk interface protocol with the Board and/or third party's; ix. Proposed staffing and location of the helpdesk; x. Interface between the helpdesk and other aspects of the CAFM system; xi. Reporting procedures and frequency of reporting; and xii. Enabling the Board to gain access to the data held within the BMS in a format/ method agreeable to the Board.	
			D10.2	Bidders must submit proposals setting out their approach to programme maintenance lifecycle. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. The information and delivery strategy which will be utilised in establishing a Programmed Maintenance planner; ii. Confirmation that the Bidder recognises that certain works will need to be undertaken out of normal working hours/ during the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				weekends to minimise the impact on the Board's operations, and without additional cost to the Board; iii. Method of establishing and updating their 5-year Maintenance Lifecycle plan; iv. Details on the provision of all specialist sub-contractors for programmed maintenance and lifecycle; v. Details of how it will ensure that the delivery of all Services will underpin the required hygienic/infection control standards for the facility, specifically compliance with HAI Scribe standards; vi. Details on staffing and management of the Service; vii. Details on how planned, reactive and statutory works are to be monitored for both quality and safe methods of work. This should include works that are undertaken by directly employed staff and any sub-contractors; viii. Details of proposals to assess staff roles and responsibilities, skill requirements, competency, training arrangements and review procedures; ix. Details on its approach to planned, reactive and statutory maintenance including prioritising business critical equipment and systems at all premises together with details on how any planned maintenance that is not achieved by the planned date is addressed; x. Sample of proposed Service Report to be used for this Contract;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				xi. Details on interface with Board's cleaning service when carrying out Programmed Maintenance; xii. Schedule for cleaning of all internal and external panes of glazed areas of the Facilities envelope; and Schedule of planned external façade cleaning service.	
			D10.3	Bidders must submit proposals setting out details of their proposed delivery strategy and key activities. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following service areas: i. Mechanical maintenance ii. Electrical maintenance iii. Plumbing iv. Lift maintenance v. Fire safety system/ equipment vi. Internal / external fabric of the Facilities vii. Periodic electrical testing and inspections viii. Lift inspections ix. Pressure vessel x. Pressure systems (written schemes) xi. Water systems risk assessments xii. Fire risk assessments xiii. Water sampling / testing	
			D10.4	Bidders must submit proposals setting out their approach to performance monitoring. This must include the following: i. Description of how the performance of the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Service will be self-monitored; ii. Approach to customer feedback and complaints handling; iii. Sample customer feedback form.	
			D10.5	Bidders must submit proposals setting out their approach to monitoring and records. This must include the following: i. Details on how the Bidder will ensure all certificates, appropriate documentation and records in relation to the Project are stored in accordance with appropriate legislation and the Board's policies; and ii. Details on how the Bidder will ensure all records in relation to the Project are maintained accurately and kept up-to-date.	
			D10.6	Bidders must submit proposals setting out their approach to regular reporting and information request. This must include the following: i. Procedures for ensuring that the reports are appropriately tailored to the Boards requirements, including the completion period for such reports; ii. Details on how it will ensure that reports are accurate and produced in line with agreed timescales; iii. Details of the types of reports that they are currently producing for other clients.	
			D10.7	Bidders must submit proposals setting out their approach to building services. This must include	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the following: i. Approach to commissioning new Plant and Equipment; ii. Details on how hardware and software licenses will be kept up to date; iii. Details on how to ensure all Equipment/ Assets used in the delivery of the Services are maintained properly and safe to use.	
			D10.8	Bidders must submit proposals setting out their approach to statutory testing.	
D11. Acceptable approach to un-programmed maintenance	Pass / Fail	n/a	D11.1	Bidders must submit proposals setting out their approach to Un-programmed Maintenance Works. This must include the following: i. Meeting the relevant Rectification Period; and ii. Meeting the standards required.	
D12. Clarity, robustness and quality of approach to service elements including; utilities management and grounds maintenance services	Scored	2.50		Bidders must submit proposals setting out their approach to service elements including utilities management and grounds maintenance. This must be provided as set out in D12.1 and D12.2 below.	
			D12.1	Bidders must submit a detailed methodology describing their approach to utilities management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Proposals to ensure an adequate continuous	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				supply of energy is available; ii. Proposals for interface with the Board to ensure no interruptions in the supply of Utilities to the Facilities; iii. Proposals for procurement of Utilities for the Board which demonstrate value for money; iv. Maintenance approach to ensure all external Utility infrastructures within the Site is fully functional; v. Method of monitoring Utilities/carbon consumption and how usage will be analysed and used; vi. Sample Utility consumption report; vii. Proposals for improving energy/ carbon efficiency; and viii. Details on Utility energy profile audit.	
			D12.2	Bidder must submit proposals setting out their approach to grounds maintenance. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Methodology for Grounds Maintenance Service and indicative programme for Planned Maintenance; and ii. Interface with third parties in ensuring a holistic approach to the safe use of the Campus access and egress routes.	
D13. Robustness of technical costs	Pass / Fail	n/a	D13.1	Bidders must submit fully completed technical cost proformas for the Services contained in the ITPD. All information requested must be	To Pass, Bidders will be required to demonstrate that their technical costs are robust for the scope of

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				provided. Bidders' completed proformas shall be provided in the same MS Excel format to allow direct comparison between bids.	works to be delivered.
D14. Acceptable list of summary assumptions, clarifications and derogations	Not Scored	n/a	D14.1	Bidders must submit a consolidated schedule of all assumptions, clarifications and qualifications made in respect of their ITPD Bids. Whilst it is encouraged that such references are also made in the appropriate locations throughout Bidders' submissions, it is a mandatory requirement of the ITPD Submission that all such matters are also summarised in a single location.	
D15. Acceptable approach to mobilisation of Facilities Management services	Pass / Fail	n/a	D15.1	Bidders must submit proposals setting out their approach to mobilisation of facilities management services. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. A draft mobilisation plan using MS Project showing the activities to be performed, interdependencies between activities, the allocation of resources and where Board input is required; ii. Details of their proposed structuring and resourcing for mobilisation. This should include the names and CVs of the proposed mobilisation management team, indicating relevant experience;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				iii. Details of proposed communications with the Board during mobilisation. This shall propose appropriate interfaces and the frequency, nature and structure of meetings and reporting; iv. Approach to recruitment of staff, including as appropriate relevant security clearances; v. Detailed proposals for the establishment of the Helpdesk service that clearly demonstrates an understanding of the operational and technical interfaces with Board Services; vi. Proposals for installation and population of the CAFM system describing (as applicable) how installation shall be effected and how data will be migrated and tested; and vii. Method of vetting staff and acquiring the necessary and appropriate security clearances.	

Annex 1 to Appendix A – Technical Cost Proforma

Design and Construction and FM Technical Cost Proforma.

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Annex 2 to Appendix A – Design Deliverables Proforma

Re-provision of RHSC and DCN at Little France

Schedule of Design Deliverables for Technical Meetings during the Dialogue Period

Instructions to Bidders:

1. The design deliverables listed below are those scheduled in Section C (Appendix AP1.1 & AP1.2) of the Submission Requirements detailed in Appendix A (ii) of Volume 1 of the ITPD.

2. Bidders shall complete the table below to indicate what drawings they will submit at each Dialogue Meeting in support of the Submission Requirements. This is in addition to each disciplines drawing schedule.

3. All drawings must be submitted during the Dialogue Period prior to submission of the Draft Final Tender.

4. The Final Tender shall include the design deliverables developed to RIBA Plan of Work Stage D.

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Section	Sub-section	Design Deliverable	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Draft Final Tender	Final Tender
AP1.1									
	1	**Project Overview**							
	1.1	Bid Drawings Schedule						✓	✓
	2	**Approach to Design & Construction - Architectural and Landscaping Design**							
	2.1	Architectural Drawings Schedule						✓	✓
	2.2	Outline Architectural Specification supporting the design concept and setting out the proposed materials, finishes and components to be used. Outline Specification shall be included for all components as detailed in the NBS Specification						✓	✓
	2.3	Development Control Plan						✓	✓
	2.4	1:1000 Site Plans						✓	✓
	2.5	1:500 Location/Site Plan						✓	✓
	2.6	1:200 Site Layouts						✓	✓
	2.7	Landscaping Proposal Specifications						✓	✓
	2.8	Landscaping Proposal Drawings						✓	✓
	2.9	1:200 architectural general arrangement floor plans, sections and elevations						✓	✓
	2.10	1:500 architectural departmental adjacencies						✓	✓
	2.11	1:100 architectural elevations including building elevation/facade showing appropriately rendered:- fenestration, exterior materials, louvres and cast shadows						✓	✓
	2. 12	1:100 architectural sections denoting floor to ceiling heights, suspended ceilings, raised access floors, floor levels						✓	✓
	2. 13	1:100 departmental layouts and 1:50 room layouts						✓	✓
	2. 14	1.200 Architectural drawings detailing (i) movement strategy, (ii) user flow diagrams at all principal circulation locations, (iii) movement interfaces and (iv) analysis of key nodal points.						✓	✓
	2.15	1:50 architectural sections through Roof and Plant Room						✓	✓
	2.16	1:100 architectural proposals relative to the clinical requirements and infection control.						✓	✓
	2.17	1:200 architectural drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code.						✓	✓
	2.18	DDA Proposals including drawings, analysis and proposals.						✓	✓
	2.19	AEDET assessment drawings						✓	✓
	2.20	1:50 Architectural design response detailing interfaces with existing RIE						✓	✓

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Section	Sub-section	Design Deliverable	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Draft Final Tender	Final Tender
	2.21	1:100 Architectural drawings and visualisations for the Pod proposals						✓	✓
	2.22	1:50 Architectural elevations and visualisations showing the Entrances						✓	✓
	3	**Approach to Design & Construction - Interior Design Proposals**							
	3.1	Quality, appropriateness and proposals for RHSC interior design supported by architectural drawings of how the layout and the design proposed addresses:							
	3.1.1	- Signage						✓	✓
	3.1.2	- Patient, communal and public areas						✓	✓
	3.1.3	- Appropriateness of facilities for users						✓	✓
		Loaded 1:50 room layout drawings indicating interior design proposals and demonstrating the co-ordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services.						✓	✓
	3.2	Quality, appropriateness and proposals for DCN interior design supported by architectural drawings of how the layout and the design proposed addresses:							
	3.2.1	- Signage						✓	✓
	3.2.2	- Patient, communal and public areas						✓	✓
	3.2.3	- Appropriateness of facilities for users						✓	✓
	3.3	Loaded 1:50 room layout drawings indicating interior design proposals and demonstrating the co-ordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services.						✓	✓
	3.4	Internal Perspectives at eye level that demonstrate form and setting of the key internal architectural areas, distinguishing or innovative features which demonstrate the design quality of the proposals.						✓	✓
		Drawings and visualisations to demonstrate the integration of Artwork into the interior design concept						✓	✓
		Sample boards to demonstrate the proposed interior finishes, colours and textures. Boards to include RHSC and DCN Wards, the Pod, Atrium and CAMHS.						✓	✓
	4	**Approach to Design & Construction - Civil & Structural Proposals**							
	4.1	Structural Drawings Schedule						✓	✓
	4.2	Civil Engineering Drawings Schedule						✓	✓
	4.3	Outline Structural Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS specification						✓	✓

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Section	Sub-section	Design Deliverable	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Draft Final Tender	Final Tender
	4.4	1:500 Site plan layout indicating all manholes, gully positions for all site drainage						✓	✓
	4.5	1:500 Site plan layout indicating all positions for surface water drainage						✓	✓
	4.6	1:500 Site plan layout indicating all positions for foul water drainage						✓	✓
	4.7	1:500 Site plan layout indicating all positions for water mains						✓	✓
	4.8	1:500 Site plan layout indicating all positions for roads, footpaths and finished levels						✓	✓
	4.9	1:100 structural general arrangement foundation plans						✓	✓
	4.1	1:100 structural general arrangement plans including floor and roof plans indicating all column and beam locations and sizes and all structural elements						✓	✓
	4.11	1:100 structural sections through the building showing structural elements and service zones						✓	✓
	4.12	Confirmation of Geotechnical surveys, reports, studies undertaken [in addition to the Geotechnical survey in the data room						✓	✓
	4.13	Confirmation of other site surveys, reports, studies undertaken [in addition to the information already located in the data room						✓	✓
	4.14	Confirmation of any vibration monitoring / prevention proposals.						✓	✓
	4.15	1:100 drawings for the Helipad						✓	✓
	4.16	Outline Structural Specification supporting the Helipad design concept including proposed materials and components to be used. Outline specification shall be included for all components in accordance with the NBS specification.						✓	✓
	5	**Mechanical & Electrical Services**							
	5.1	Building services (mechanical) drawings schedule						✓	✓
	5.2	Building services (electrical) drawings schedule						✓	✓
	5.3	Outline Building services (mechanical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification						✓	✓
	5.4	Outline Building services (electrical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification						✓	✓
	5.5	1:500 site plan layout indicating all mechanical services , utilities supplies, natural gas mains, water supply and fire mains						✓	✓
	5.6	1:500 site plan layout indicating all electrical utilities supplies, electrical mains, data and comms ducts						✓	✓
	5.7	1:200 internal services concept schematic and zoning plans for both heating and ventilation; indicating of heating and ventilation in each room						✓	✓

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Section	Sub-section	Design Deliverable	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Draft Final Tender	Final Tender
	5.8	1:100 mechanical general arrangement floor plans showing extent of services, distribution routes, mechanical plant acoustic treatment, plant areas, etc.						✓	✓
	5.9	Mechanical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed :						✓	✓
	5.9.1	- Plant strategy						✓	✓
	5.9.2	- Distribution strategy						✓	✓
	5.9.3	- Incoming gas and water services (including metering and sub-metering)						✓	✓
	5.9.4	- Environmental design considerations						✓	✓
	5.9.5	- Heat sources						✓	✓
	5.9.6	- Natural Ventilation strategy						✓	✓
	5.9.7	- Mechanical Ventilation strategy						✓	✓
	5.9.8	- Mechanical cooling						✓	✓
	5.9.9	- Mechanical air conditioning						✓	✓
	5.9.10	- Specialist ventilation strategy						✓	✓
	5.9.11	- Domestic hot and cold water system						✓	✓
	5.9.12	- Space Heating System						✓	✓
	5.9.13	- Space Cooling System						✓	✓
	5.9.14	- Building Energy and Management System						✓	✓
	5.9.15	- Dry Risers						✓	✓
	5.9.16	- Soil and Waste System (above and underground)						✓	✓
	5.9.17	- Rainwater pipework and distribution						✓	✓
	5.9.18	- Specialist drainage						✓	✓
	5.9.19	- Sanitary ware and appliances						✓	✓
	5.9.20	- Dry Risers						✓	✓
	5.9.21	- Natural Gas Installations including laboratory gases						✓	✓
	5.9.22	- Medical Gas Installations						✓	✓
	5.9.23	- Pneumatic Tube System							
	5.9.24	- Mechanical Commissioning Strategy						✓	✓
	5.10	1:100 electrical general arrangement floor plans showing extent of services, distribution routes, plant areas, etc						✓	✓
	5.11	Electrical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed :						✓	✓
	5.11.1	- Incoming electrical services						✓	✓
	5.11.2	- Metering and Sub-metering						✓	✓
	5.11.3	- Mains distribution including standby generation facilities						✓	✓
	5.11.4	- Earthing, Bonding and Lightning protection						✓	✓
	5.11.5	- Containment systems						✓	✓
	5.11.6	- Small power installation						✓	✓
	5.11.7	- Lighting and Emergency Lighting						✓	✓
	5.11.8	- Specialist lighting						✓	✓

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Section	Sub-section	Design Deliverable	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Draft Final Tender	Final Tender
	5.11.9	- Lighting control systems						✓	✓
	5.11.10	- Uninterruptible Power Supplies						✓	✓
	5.11.11	- Telecommunications and I.T.						✓	✓
	5.11.12	- Nurse Call System						✓	✓
	5.11.13	- Fire Detection and Suppression System						✓	✓
	5.11.14	- Staff Attack / Induction Loop						✓	✓
	5.11.15	- Security system						✓	✓
	5.11.16	- Access Control system						✓	✓
	5.11.17	- CCTV system						✓	✓
	5.11.18	- Public address system						✓	✓
	5.11.19	- Digital TV and Radio Installation						✓	✓
	5.11.20	- Patient / Equipment Tagging						✓	✓
	5.11.21	- Induction Loop						✓	✓
	5.11.22	- Bedhead Services						✓	✓
	5.11.23	- Electrical Commissioning Strategy						✓	✓
	5.12	1:50 mechanical and electrical services sections to illustrate use of ceilings, natural daylight, ventilation strategies, cooling and heating strategies, lighting strategy, acoustic strategy, specialist installations strategy, services concept						✓	✓
	6	**Lift Provisions**							
	6.1	Lift and Escalator Drawings Schedule						✓	✓
	6.2	Outline Building services (lift and escalator provision) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification. Traffic flow analysis to be included.						✓	✓
	7	**Environmental Services and Energy Management Strategy**							
	7.1	Natural Ventilation drawings and proposals						✓	✓
	8	**Fire Strategy**							
	8.1	1:100 Fire Strategy drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code						✓	✓
	8.2	Outline Fire Strategy Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification						✓	✓
	9	**Security Strategy**							
	9.1	1:100 Security drawings in support of security strategy and how the security proposals support the design concept						✓	✓

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Section	Sub-section	Design Deliverable	Meeting 1	Meeting 2	Meeting 3	Meeting 4	Meeting 5	Draft Final Tender	Final Tender
	9.2	Outline Security Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification						✓	✓
	10	**Acoustic Strategy**							
	10.1	Outline Acoustic Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification						✓	✓
	11	**Adaptability, Flexibility and Expandability Strategy**							
	11.1	Architectural adaptability drawings in support of the overall adaptability strategy						✓	✓
	11.2	Strategy and drawings showing how the design of the new RHSC and DCN demonstrates innovation, flexibility, consideration of whole life design and is capable of absorbing reasonable change in the future without excessive public, patient or clinical disruption						✓	✓
AP1.2		**Specifications as described.**						✓	✓

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Appendix B (i) – Financial Agenda Topics and Submission Requirements

1. Dialogue Meeting 1: Agenda Topics and Submission Requirements

Meeting	Topics	Deliverable
Preparation for Financial Meeting 1	• Funding strategy • Approach to surpluses/buffers • Risk capital	A Submission covering the following topics: • intended funding strategy, addressing 11 and 12 in Financial Submission requirements below. • intended approach to surpluses/buffers, addressing 7 below; • approach to risk capital addressing 15 below.
Financial Meeting 1	• Funding strategy • Approach to surpluses/buffers • Risk capital	Presentation of Submission described above.

2. Dialogue Meeting 2: Agenda Topics and Submission Requirements

Meeting	Topics	Deliverable
Preparation for Financial Meeting 2	• Hedging • Payment Mechanism • Funder commitment and diligence • Meeting updates	A Submission covering the following topics: • approach to hedging (18 below). • Bidder initial views of payment mechanism, addressing 21 below; • Level of funder commitment obtained to date, progress on due diligence and approach between now and close to these issues, addressing 17, 19 and 20 below; • Update on progress on areas discussed in Meeting 1, where relevant.
Financial Meeting 2	• Hedging • Payment mechanism • Funder commitment and diligence • Meeting 1 updates	Presentation of Submission described above

3. Dialogue Meeting 3: Agenda Topics and Submission Requirements

Meeting	Topics	Deliverable
Preparation Financial Meeting 3	• Financial Model • Tax and accounting • Bid validity	A Submission covering the following topics: • The Financial Model, its structure and operation; • Key model inputs and assumptions; • Key model outputs, including presentation of initial

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	• Databook • Sensitivities • Working capital •	Annual Service Payment to proposals and response to 1, 8 and 9 below: • Update as required on other areas.
Financial Meeting 3	• Outstanding issues	Presentation of Submission described above. Discussion of outstanding issues.

4. Dialogue Meeting 4: Agenda Topics and Submission Requirements

Meeting	Topics	Deliverable
Preparation for Financial Meeting 4	• All other areas of Financial Submission	A Submission covering all remaining areas of Financial Submission not covered in previous meetings, addressing 2, 3, 4, 5, 6, 9, 10, 14, 16 and 22 below.
Financial Meeting 4	• All other areas of Financial Submission	Presentation of Submission described above.

5. Dialogue Meeting 5: Agenda Topics and Submission Requirements

Meeting	Topics	Deliverable
Preparation for Financial Meeting 5	• Update on previous Submissions • Identification of areas requiring Dialogue prior to Draft Final Tender	A written update of any changes to previous Submissions. A schedule of areas requiring further Dialogue before Draft Final Tenders are invited.
Financial Meeting 5	• Update on previous Submissions • Identification of areas requiring Dialogue prior to Draft Final Tender	Presentation of Submission described above.

6. Dialogue Meeting 6: Agenda Topics and Submission Requirements

Meeting	Topics	Deliverable
Preparation for Financial Meeting 6	• Update on previous Submissions • Identification of areas requiring Dialogue prior to	A written update of any changes to previous Submissions. A schedule of areas requiring further Dialogue before Final Tender is invited. The Board will provide a schedule to Bidders setting out its view of these areas

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	Final Tender	which Bidders should annotate, expand and amend as required.
Financial Meeting 6	• Update on previous Submissions • Identification of areas requiring Dialogue prior to Draft Final Tender	Presentation of Submission described above.

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In order to ensure comparability in Submissions received, Bidders are requested to provide the financial information outlined below and to cross reference this to their Submission documentation. If Bidders believe that certain information is not applicable this should be clearly indicated within their responses.

Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
Financial Model Response				
1	The Bidder is required to submit a Financial Model which complies with the format requirements set out in section 3.9.2.	Required as part of Submission for Dialogue Meeting 3.	Required. Bidders should populate a Financial Model using standard terms as provided by the Board.	Required. Bidders should populate a Financial Model using actual terms provided by chosen funding providers.
2	The Bidder should provide confirmation that they are prepared to underwrite the tax and accounting adopted within the Financial Model	Required as part of Submission for Dialogue Meeting 4.	Required.	Required.
3	Bidders should identify assumptions in relation to taxation including the following: • Bidders must specify the corporation tax rates assumed, including any marginal relief (if appropriate) and confirm that consideration has been given to changes to the standard rate of corporation tax included in the Finance Act 2011 and announcements in the 2012 Autumn Statement; • Bidders should specify the assumptions made in respect of the commencement and cessation of trade for tax purposes, including any tax relief assumed for pre-trading interest costs. • Bidders should specify the assumptions made in respect of deductibility or non-deductibility of revenue costs, including in respect of construction costs, transaction costs, such as bid costs, development costs, planning costs	Required as part of Submission for Dialogue Meeting 4.	Required.	Required.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
	and legal fees; • Bidders are required to specify the assumptions made in respect of the tax treatment of capital expenditure, (including in respect of lifecycle costs and any intangible fixed assets) including amounts of expenditure allocated to the different capital allowance pools, amounts assumed to be non-qualifying for capital allowances, the rate of writing down allowance claimed and details of any capital allowances disclaimed; • Bidders are required to categorise taxable profits by type, such as trading profits, interest, and other non-trading profits or losses. The categories of taxable income should be appropriately ring-fenced (e.g. when carrying forward losses); • Bidders must specify any assumptions made in respect of the tax treatment of capitalised interest; • The application of transfer pricing legislation in the UK can have implications for PPP/PFI projects, particularly around the tax treatment of subordinated debt and corporate debt interest charges. Bidders should consider the implications of this aspect of corporation tax on their proposals and confirm that any such implications have been considered. • Bidders should consider the potential implications of the worldwide debt cap in respect of the deductibility of interest costs and confirm that any such implications have been taken into account in pricing the project. • Bidders should provide a statement setting out their assumptions in respect of the tax treatment of any other income or capital contributions received; • Bidders should provide a statement setting out any tax assumptions made concerning timing of			

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
	payments of corporation tax. • Bidders should state the tax treatment of any surpluses • Bidders must make their own decisions as to whether or not to seek advanced tax clearance from HMRC for any aspect of the proposed treatment. If such clearance is sought, Bidders must attach the appropriate correspondence to their submission. If the Bidder is relying on an advanced clearance from HMRC, this will need to be provided before contract signature and Financial Close. • Bidders should identify fall back positions if the proposed treatment fails together with any other possible tax treatments that may be applicable to the contract. • Bidders are required to state any VAT assumptions made and the basis for these assumptions (including VAT implications in relation to land transactions where applicable). • Bidders should consider the implications of SDLT on their proposals. Any SDLT costs should be included within the Financial Model along with an accompanying statement explaining how it is calculated.			
4	• Bidders should/must obtain and submit a formal letter from their tax advisers or suitably qualified professional confirming that in their opinion the proposed tax treatment (including corporation tax, VAT and SDLT) is valid and that any required accounting treatments underpinning the tax treatment would be within the appropriate accounting standards. This opinion should set out the basis for the treatments adopted, and identify any risks associated with it.	Required as part of Submission for Dialogue Meeting 4.	Required.	Required.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
5	• The Bidder should separately identify the funders' margin and MLA costs (or equivalent) in the Financial Model and any swap credit spreads or liquidity margins (or equivalent) they would expect to incur • The Bidder should confirm those elements of the overall interest rate that are fixed and those that are variable up to financial close • The Bidder should identify the protocol they will utilise in setting the underlying funding rate at financial close ensuring transparency and best value for The Board • All financing fees, including arrangement, commitment, agency and any other relevant fees should be separately identified and reflected in the Financial Model • Assumptions on deposit and overdraft rates should be explicitly stated.	Required as part of Submission for Dialogue Meeting 4 omitting those elements that are not relevant due to the use of standard terms.	Required omitting those elements that are not relevant due to the use of standard terms.	Required.
6	Bidders should confirm that they will maintain underlying construction, operating, FM and Project Co costs for a period of three months from the target Financial Close date with no adjustment for inflation. Bidders should confirm that only capital, lifecycle and facilities management costs will increase post-validity period and that they will use all reasonable endeavours to mitigate the impact of any cost increases post validity period. Bidders should specify which cost index or indices they require costs to be inflated in the post validity period. Note should be taken of the indexation regime that will be applied to Scottish Government support in relation to the construction cost cap set out in section 3.8.1.	Required as part of Submission for Dialogue Meeting 4.	Required.	Required.
7	Bidders should set out their approach to the treatment of surpluses and cash	Required as part of	Required in detailed	Required in detailed form.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
	buffers, confirming that approach set out in 3.8.7 above has been applied.	Submission for Dialogue Meeting 1.	form.	
8	The proforma financial information requirements are included in Annex 1 to this Appendix. The information is the minimum requirement. Where the Bidder needs to provide additional information in order to provide a higher level of understanding of the individual components of the submission such additional information should be provided The information in the financial proformas should not be aggregated.	Required as part of Submission for Dialogue Meeting 3.	Required.	Required.
9	The Bidder is required to provide a databook and user guide supporting the Financial Model for the Financial Submission, as set out in Section 3.9.3.	Draft version required as part of Submission for Dialogue Meeting 3.	Required.	Required.
10	Bidders should provide details on the range of sensitivity tests that funders have requested. The Final Tender Submission will require Bidders to provide the results of funders' sensitivity tests. The Board may also request certain sensitivities to be carried out and included in Financial Submissions.	Required as part of Submission for Dialogue Meeting 4.	Required. The Board will inform Bidders of any sensitivities required no later than three weeks before the submission date.	Required. The Board will inform Bidders of any sensitivities required no later than three weeks before the submission date.
Information required to support the funding package				
11	The Bidder should provide assessment of the current issues in the funding markets that could impact upon the availability or terms of the finance offered. The Bidder should also explain how any risks within its chosen funding strategy will be managed to ensure that there is no impact on the affordability, value for money or timescales for	Required as part of Submission for Dialogue Meeting 1.	Updated version required describing how these issues will be addressed between Preferred	Updated version required describing how these issues will be addressed between Preferred Bidder and Financial Close.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
	delivery of the Project. The Bidder's response should set out how value for money will be secured between funding options and/or funding providers, at each phase of the procurement. Bidders should confirm acceptance of the position that The Board reserves the right to instruct a funding competition at any point during the procurement.		Bidder and Financial Close.	
12	Bidders should provide a statement confirming that they have not entered/will not enter into any exclusivity arrangements with funders.	Required as part of Submission for Dialogue Meeting 1.	Required.	Required.

13	The Bidder must submit the following information for each class of debt finance:
	• Identity of the funders
	• Type of facility offered
	• Amounts to be provided by each funder
	• Credit margins and similar charges
	• Explanation of the types of reserve account(s) and/or facility(ies) proposed and associated terms
	• Terms and conditions attaching to the debt including:
	  • Draw down schedule
	  • Repayment schedule and tenor and any average life covenants
	  • Security required including parent company guarantees, bonding, letters of credit, liquidated damages and liability caps.
	  • Interest rates and other fees
	  • Financial ratios and covenants (base case, distribution and default)explicitly stating the basis of the calculation
	  • Default clauses
	  • Conditions precedent.
	  • Extent to which the funds are committed
	• Confirmation that the margins and
		Not required.	Draft versions required, noting that the terms described should not be used in the Financial Model but provided for information only.	Required.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
	charges detailed above are a full and complete list and no additional margins or charges not otherwise disclosed will apply.			
14	The Bidder should specify any working capital requirements and provide evidence as to how this is to be financed.	Required as part of Submission for Dialogue Meeting 4.	Required.	Required.
15	The Bidder must submit the following information for each type of risk capital to be raised: • Identity of the investors • Amounts to be subscribed by each investor and the timing thereof • Minimum return requirement for each class of risk capital and the basis of any IRR calculations • Terms and conditions of the subscription including return requirements (shareholder agreement or detailed term sheet) • Coupon rights attaching to the subscription • Mezzanine interest rates • Terms and any other agreements between the Investors in their capacity as investors in the Project Co • Any other rights attaching to this subscription • An undertaking that no additional margins or charges will apply that have not already been disclosed and included in the Financial Model • The length of time each class of risk capital will remain in the project vehicle • The extent to which the funds are committed. •	Outline proposals required as part of Submission for Dialogue Meeting 1.	Required.	Required.
16	To the extent that other forms of finance other than those listed above are to be used, the Bidder must provide appropriate details equivalent to those requested for subordinated debt and	Required as part of Submission for Dialogue Meeting 4.	Required.	Required.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
	debt finance.			
17	The Bidder is required to produce the strongest form of commitment possible. The level of investor and Funder commitment should be demonstrated through the provision of: • board minutes or draft letters of support from the sponsor shareholders committing to subscribe subordinated debt on the terms identified above • letters of support from underwriting banks and financial institutions (if applicable) offering debt facilities on the terms identified above (to be accompanied by draft term sheets) • A clear statement on the level of approval process and timescale that will be required from the respective lending organisations should be made. • A letter from the Bidder's financial advisers stating that the proposed funding structure is realistic, achievable and deliverable and that the financing proposals are sufficient to enable the Project Co to meet its obligations under the NPD Project Agreement.	Required as part of Submission for Dialogue Meeting 2.	Required in final draft form.	Required in final form.
18	The Bidder must set out clearly its proposal in relation to any hedging arrangements required to support the project. The following details should be provided: • the manner in which the Bidder will address the risk of future movements on interest rates, including a full description of its interest rate hedging to be applied • the time period over which hedges are expected to be in place • details of any financial instruments that will be used to provide protection against interest rate movements and the cost/effect of such protection should be reflected in the Financial	Required as part of Submission for Dialogue Meeting 2.	Required.	Required.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
	Model • confirmation that the Project Co will bear all interest rate risk in respect of its borrowings once financial close is achieved • confirmation that the Bidder will bear all foreign exchange risk • the manner (if any) in which the Bidder will address the risk of future movements in the Retail Price Index (RPI). The Board does not expect that Bidder's funding solution will require the use of RPI hedging instruments. The interim Financial Model submission should clearly demonstrate the proportion of costs that are fixed, the proportion subject to inflation and the basis upon which the Bidder has set the proportion of Annual Service Payment that will be subject to inflation • confirmation of the acceptance of the principle of benchmarking of hedging instruments (including GICs where appropriate) at financial close.			
19	The Bidder should indicate the extent of the funder due diligence that has been carried out to date and that will be carried out prior to the appointment of a preferred bidder and the overall scope and timetable of funder due diligence up to financial close. In addition to the provider of senior debt, the response should cover due diligence required by any third party provider of subordinated debt funds.	Required as part of Submission for Dialogue Meeting 2.	Required.	Required.
20	A programme setting out the timescale for agreeing all matters relating to funding to financial close must be provided. Evidence must be provided that the proposed providers of finance to Project Co have accepted this timetable in principle and that adequate resource will be available to ensure the timetable is met.	Required as part of Submission for Dialogue Meeting 2.	Required.	Required.

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Ref	Required Response	Submissions during Dialogue	Draft Final Tender Submission	Requirement at Final Tender
Other information				
21	The Bidder should provide a commentary on the calibration of the Payment Mechanism and confirm its acceptance in principle of the calibration of, and tolerances built into, the Payment Mechanism and performance regime. In commenting on these, the Bidder is expected to address: • Practicality; • Value for Money; and • Ability to obtain funding	Required as part of Submission for Dialogue Meeting 2.	Required.	Required.
22	Bidders must provide fully detailed calculations supporting the insurance premiums quoted, including sums insured, rates applied and deductibles, where applicable. This must be provided separately for construction and operational insurances.	Required as part of Submission for Dialogue Meeting 4.	Required.	Required.

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Annex 1 to Appendix B– Financial Proformas

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Appendix C - Legal Agenda Topics, Submission Requirements and Evaluation

Appendix C (i) – Legal Agenda Topics

1. Overview

It is the Board's intention that the core elements for discussion at the relevant Dialogue Meetings shall be as set out in the following legal agendas. However, the Board shall reserve the right to dovetail the legal agendas to address specific Bidder issues during the Dialogue Period.

2. Legal Agenda Topics

Meeting	Topics	Deliverable
Dialogue Meeting 1	Top 10 Key Issues in NPD Project Agreement	1. A list of up to 10 key commercial / contractual issues in relation to the NPD Project Agreement together with: • an explanation of each of the Bidders' issues and why Bidders do not believe the NPD Project Agreement addresses the relevant issue; and • where relevant, the Bidders' alternative proposal/s, explaining why the alternative proposal/s might be acceptable to the Board. 2. Any comments that Bidders may have in relation to the NPD Model requirements of the Board, including the NPD Articles of Association.
Dialogue Meeting 2	Project Agreement mark-up and contractual structure	1. Bidders are required to submit a detailed mark-up (in both clean and PDF comparison format) of the NPD Project Agreement (including all Schedules), together with a commentary in the form set out in Appendix C(ii) of Volume 1 of the ITPD. The detailed mark-up of the NPD Project Agreement and commentary should include: • an explanation of each of the Bidder's amendments s and why the Bidder does not believe the NPD Project Agreement addresses the relevant issue; and • where relevant, the Bidder's alternative proposal/s, explaining why the alternative proposal/s might be acceptable to the Board, • Details of any proposed caps and termination triggers, with such documentation being referred to as the "**NPD Project Agreement Submission"**. 2. In addition, the following documentation shall also require

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Meeting	Topics	Deliverable
		to be provided by Bidders: • Contractual matrix/diagram, showing clearly the relationships between the Bidder and its supply chain including funders and sub-contractors. The diagram should provide details of all collateral warranties, direct agreements and guarantees. Bidders should also be prepared to provide a presentation on its contractual structure; • Draft heads of terms for each of the Contractor, Services Provider and any relevant Key Sub-contractors. The Board will expect to see details such as caps in liability, liquidated damages and indemnities covered in these heads of terms; • Key terms of any proposed parent company guarantee; • Collateral Warranties to be provided to the Board together with key commercial terms; • Step-in and direct agreements together with key commercial terms; • Any proposed amendments to the Articles of Association, with such documentation being referred to as the "**Additional Documentation Submission"**. 3. Bidders should bear in mind the Board's expectations of minimal derogations to the NPD Project Agreement and be mindful of the Board's requirement to obtain SFT approval of any derogations pursuant to paragraph 3.5 (Derogation Procedure) of Volume 1 of the ITPD).
Dialogue Meeting 3	Project Agreement mark-up and contractual structure	1. Continue dialogue in relation to Bidders' NPD Project Agreement Submission. 2. Continue dialogue in relation to Bidders' Additional Documentation Submission. 3. Board to provide feedback to Bidders in relation to the Bidders' Project Agreement Submission and Additional Document Submission.
Dialogue Meeting 4	Project Agreement mark-up and contractual structure	1. Continue dialogue in relation to Bidders' NPD Project Agreement Submission. 2. Continue dialogue in relation to Bidders' Additional

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Meeting	Topics	Deliverable
		Documentation Submission. 3. Board to provide feedback to Bidders in relation to the Bidders' Project Agreement Submission and Additional Document Submission.
Dialogue Meeting 5	Project Agreement mark-up and contractual structure	1. Continue dialogue in relation to Bidders' NPD Project Agreement Submission. 2. Continue dialogue in relation to Bidders' Additional Documentation Submission. 3. Board to provide feedback to Bidders in relation to the Bidders' Project Agreement Submission, Additional Document Submission.
Dialogue Meeting 6	Review of Draft Final Tenders	Please refer to paragraph 3 (Draft Final Tender Requirements**)** below.

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Appendix C (ii) – Submission Requirements and Evaluation

1. Draft Final Tender Requirements for Legal Submission

Prior to Dialogue Meeting 6, Bidders are required to re-submit the documentation set out in paragraph 1.1 below to reflect the progress of issues agreed during the Dialogue Period. This documentation shall in turn form a Bidder's legal submission for the Draft Final Tender.

1.1 NPD Project Agreement and Additional Documentation

Bidders shall be required to provide:

1.1.1 A fully marked-up NPD Project Agreement in both clean and PDF comparison format together with a detailed commentary in the form set out in Appendix C(ii) of Volume 1 of the ITPD in relation to each amendment, setting out a Bidder's commercial position where relevant. The mark up should include details of any proposed caps (with associated justifications for the levels set), and details of all termination trigger levels and persistent breach levels (including associated justifications for any departures from those set out in the NPD Project Agreement), where they appear in square brackets in the NPD Project Agreement. Bidders will not be permitted to include in their mark up of the NPD Project Agreement; and

1.1.2

(a) Contractual matrix/diagram, showing clearly the relationships between the Bidder and its supply chain including funders and sub-contractors. The diagram should provide details of all collateral warranties, direct agreements and any applicable guarantees which will be granted to the Board and the circumstances in which the protection offered by the collateral warranties and direct agreements will be available; and

(b) Fully developed, signed heads of terms for each of the Contractor, Services Provider and any relevant Key-Subcontractors. The Board will expect to see details such as caps on liability, liquidated damages and indemnities covered in these heads of terms;

(c) Final version of proposed parent company guarantees;

(d) Final version of the Articles of Association.

1.2 Prohibited Bidder Amendments

1.2.1 Bidders will not be permitted to include in their mark up of the NPD Project Agreement referred to in paragraph 1.1.1 above or the additional documentation referred to in paragraph 1.1.2 above:

(a) amendments, caveats and/or qualifications which have not previously been raised with the Board and/or its advisers during the Dialogue Period (other than drafting that is necessarily consequential on, or necessary to implement, amendments which have been so raised); or

(b) amendments, caveats and/or qualifications which have been raised with the Board during Dialogue Period but rejected by the SFT,

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such amendments being defined as "**Prohibited Bidder Amendments**".

1.2.2 The Board shall be entitled to reject in its absolute discretion any Prohibited Bidder Amendments included within the documentation to be submitted pursuant to paragraphs 1.1.1 and 1.1.2 above which forms part of a Bidder's legal submission for the Draft Final Tender**.**

1.3 Review of Draft Final Tenders

As per paragraph 4.6 (Draft Final Tender) of Volume 1 of the ITPD, the Board will review the Draft Final Tenders to ensure compliance with the tender requirements. A final round of Dialogue will then take place as indicated on the programme at paragraph 4.2.1 (Timetable of Dialogue Meetings) of Volume 1 of the ITPD. This Dialogue will provide feedback to Bidders on the content of their Draft Final Tender and clarify any outstanding points.

2. Final Tender

2.1 Overview

As per paragraph 4.8 (Final Tender) of Volume 1 of the ITPD, the Board shall provide Bidders with an Invitation to Submit Final Tenders. Unless the Bidder is notified otherwise in the Invitation to Submit Final Tender, the legal submission requirements for the Final Tender shall be as set out in paragraph 4.2 (NPD Project Agreement) and 4.3 (Additional Documentation) below.

2.2 NPD Project Agreement

2.2.1 Bidders should note that a NPD Project Agreement specific to each Bidder (**Final Tender (Bidder Specific) NPD Project Agreement**) shall be issued to each Bidder by the Board in the Invitation to Submit a Final Tender.

2.2.2 The Final Tender (Bidder Specific) NPD Project shall be based upon:

(a) the respective NPD Project Agreement submitted by Bidders as part of the Draft Final Tender ; and

(b) any agreed issues resolved in the final Dialogue Meeting,

and Bidders shall be required to submit their Final Tenders on the basis of the terms of the Final Tender (Bidder Specific) NPD Project Agreements, without further amendment.

2.2.3 Any amendment to the Final Tender (Bidder Specific) NPD Project Agreement may result in a Bidder's entire Final Tender being rejected by the Board without further evaluation.

2.3 Additional Documentation

2.3.1 Subject to paragraph 2.3.2, the following documentation shall also require to be submitted by Bidders as part of their Final Tender:

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(a) Contractual matrix/diagram, showing clearly the relationships between the Bidder and its supply chain including funders and sub-contractors. The diagram should provide details of all collateral warranties, direct agreements and any applicable guarantees which will be granted to the Board and the circumstances in which the protection offered by the collateral warranties and direct agreements will be available;

(b) Fully developed, signed heads of terms for each of the Contractor, Services Provider and any relevant Key Sub-contractors. The Board will expect to see details such as caps on liability, liquidated damages and indemnities covered in these heads of terms;

(c) Final version of proposed parent company guarantees; and

(d) Final version of the NPD Articles of Association.

2.3.2 The documentation referred to above in paragraph 2.3.1 above, shall be based upon:

(a) the documentation referred to in paragraph 1.1.2 which was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and

(b) any agreed issues resolved in the final Dialogue Meeting,

and Bidders shall be required to submit their Final Tenders on the basis of the terms of this paragraph, without further amendment.

2.3.3 Any amendment to the documentation referred to in paragraph 2.3.1 may result in a Bidder's entire Final Tender being rejected by the Board without further evaluation.

2.4 Evaluation of Final Tender

2.4.1 The legal submission which forms part of the Final Tender shall be evaluated as follows:

(a) NPD Project Agreement

Subject to paragraph 2.2.3, the NPD Project Agreement shall be evaluated in accordance with the following:

(i) Pass/Fail: Bidders shall be awarded a pass if they accept the Final Tender (Bidder Specific) Project Agreement. Bidders shall be awarded a fail if they do not accept the Final Tender (Bidder Specific) Project Agreement;

(ii) If a pass is received by Bidders in respect of the Final Tender (Bidder Specific) Project Agreement, the provisions of paragraph 5.7.1(d) (Quantifiable Bidder Amendments) of Volume 1 of the ITPD shall be applied. The Quantifiable Bidder Amendments that shall be applied to a Bidder's Provisional Economic Cost Score shall be those Quantifiable Bidder Amendments notified by the Board to Bidders during the Dialogue Period.

(b) Additional Documentation

Subject to paragraph 2.3.3, the additional documentation referred to in paragraph 2.3.1 above shall be evaluated in accordance with the following:

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(i) Pass: Bidders shall be awarded a pass if they submit as part of their legal submission for their Final Tender the documentation referred to above in paragraph 2.3.1 above, which shall be based upon:

(A) the documentation referred to in paragraph 1.2.1 which was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and

(B) any agreed issues resolved in the final Dialogue Meeting,

(ii) Fail: Bidders shall be awarded a fail if they submit as part of their legal submission for their Final Tender the documentation referred to above in paragraph 2.3.1 above which is not based upon:

(A) the documentation referred to in paragraph 1.2.1 which was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and

(B) any agreed issues resolved in the final Dialogue Meeting.

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Appendix C (iii) – Proforma Commentary Table for NPD Project Agreement

The following pro forma commentary table should be used by Bidder's as the basis of their commentary table to accompany any mark-up of the NPD Project Agreement.

In accordance with paragraph 5.7 (Price Evaluation), the "Issue" column of the commentary table should include a description of each amendment to the NPD Project Agreement as either 1 or 2 as follows:

1. Minor/inconsequential amendment;

2. Quantifiable Bidder Amendment.

Issue	Clause	Description	Issue	Bidder Comment	Board Comment
1.	4	Project Documents	1	[●]	[●]

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Appendix C (iv) – Interface Proposals

Summary of Interface Proposals to be provided by Bidders

The following Interface Proposals are required to be provided by Bidders to the Board during the Dialogue Period. The requirements of the Interface Proposals are more fully set out in Appendix A of the Board's Construction Requirements, subject to certain conditions within Schedule Part 5 (Land Matters), and this summary should be read in conjunction with these provisions. Although the Interface Proposals are primarily relevant to the Construction Phase, some Interface Proposals shall apply to the Project Operations. Please note that Appendix A of the Board's Construction Requirements may be subject to change to reflect discussions during the Dialogue Period.

The requirement for the Interface Proposals arose from an agreement between the Board and Consort when the Site was removed from the Campus Site (i.e. in order for the Board to secure land for the construction of the Facilities) and therefore from Consort's responsibility. The Interface Proposals are intended to provide Consort with some comfort that the Project Operations are conducted by Project Co in a manner which is least detrimental to Consort's ability to operate the Retained Estate and/or Retained Site.

The Interface Proposals shall be agreed between the Board and Consort pursuant to procedures set out in the RIE Project Agreement. All Bidders are required to submit Interface Proposals prior to relevant Dialogue Meetings, as per the timetable set out below. However, the Board shall not engage with Consort to finalise and agree these Interface Proposals until Preferred Bidder stage. It is the Board's intention that the Interface Proposals shall be in an agreed form and ready for implementation by the Preferred Bidder at Financial Close.
The Board's approach to the Interface Proposals in the ITPD is to ensure a level playing field between Bidders. Please note that the Board cannot guarantee that Appendix A of the Board's Construction Requirements, upon which the Interface Proposals shall be based, will not be subject to further amendment or refinement at Preferred Bidder stage or post-financial close. However, at this stage, the Board anticipates that any such amendment or refinement should not be material.

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
1	Traffic Management Strategy	The Traffic Management Strategy ('**TMS**') is required where Project Co wants to access the Site for the construction of the Project via the Orange Areas (which includes the orange hatched areas) shown on Plan 2. The TMS is a proposal which is to address traffic management at the Campus which must be prepared having regard to: (a) the health and safety of all users of the Campus Site and/or Campus Facilities must be safeguarded at all times; (b) RIE Facilities is a working hospital to which access (including both pedestrian and vehicular) must be maintained at all times; (c) traffic at the Campus Site is to be prioritised in accordance with the following hierarchy: (i) blue light traffic access/egress; (ii) staff, patients and visitors to the Campus Site and/or Campus Facilities (public transport);	Drafts to be submitted for Dialogue Meeting 2. Also required to be submitted for Draft Final Tender and Final Tender. .	Preferred Bidder Stage	Pass / Fail	Construction Phase

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		(iii) staff, patients and visitors to Campus Site and/or Campus Facilities (car parking); (iv) Campus Site and/or Campus Facilities deliveries, FM supplies and waste collection; and (v) Project Co's construction traffic; and (d) insofar as reasonably practicable and appropriate in the circumstances (taking into consideration, for example, the number of construction vehicles involved, the number of journeys anticipated, the time of the day when access is required and the part(s) of the areas affected) construction traffic using the affected area shall require to be segregated from other traffic and/or pedestrians using the affected area (for example, through contra-flow or one way traffic arrangements and safe routes for pedestrians). Further details of the TMS are set out in paragraph 2 (Construction Access over Orange Area) of Section 1 of Part 1 of Appendix A of the Board's Construction Requirements.				
2	Oversail Strategy	If as part of its activities (including construction of the Project) Project Co needs to oversail any other part of the	Draft to be submitted	Preferred Bidder	Pass / Fail	Primarily Construction

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Retained Site and/or Retained Estate then Project Co requires to prepare Oversail Strategy/ies. The Oversail Strategy/ies must comply with specified criteria and include: (a) programme of proposed oversail activities; (b) risk assessments; (c) a strategy for erection, operation, dismantling of oversailing crane(s), the details of which are more fully set out in Section 4 (Oversailing) of Part 1 of Appendix A of the Board's Construction Requirements.	for Dialogue Meeting 2. Also required to be submitted for Draft Final Tender and Final Tender.	Stage		Phase but also Operational Term if any Project Operations required oversailling
3	Access Strategy	An Access Strategy is required where Project Co needs to occupy part or parts or do works in and/or hoard off Access Areas (which includes Orange Areas (including orange hatched areas, on Plan 2), Yellow Area (including yellow hatched area, on Plan 2) and Substation Access Area (which is shaded blue and hatched black on Plan 2)) for carrying out works to pedestrian and vehicular access, to reconfigure roads, footpaths and landscaped areas and install surface water and foul/sewer drainage connections. Pedestrian and vehicular access to the Campus Site and/or Campus Facilities must be maintained at all times (albeit that the access arrangements may require to be	Draft to be submitted for Dialogue Meeting 2. Also required to be submitted for Draft Final Tender and Final	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term (wherever there is to be future ongoing maintenance the areas described).

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		subject to restrictions or diversions during any periods of occupation.) These restrictions need approval in the form of an Access Strategy. The Access Strategy is for managing pedestrian and vehicular access, in a manner similar to the TMS above but is not limited to traffic for construction. The Access Strategy is be prepared which shall ensure: (a) The health and safety of all users of the Campus Site and/or Campus Facilities must be safeguarded at all times; (b) Regard is had to RIE Facilities as a working hospital to which appropriate pedestrian and vehicular access must be maintained at all times; (c) Pedestrian and vehicular access must be maintained (albeit, at times it may be restricted) over the section of Little France Crescent lying within the part of the Orange Area shown shaded orange (but not hatched black) on Plan 2; and (d) Traffic will be prioritised in accordance with the following hierarchy: (i) blue light traffic access/egress;	Tender.			

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		(ii) staff, patients and visitors to the Campus Site and/or Campus Facilities (public transport); (iii) staff, patients and visitors to the Campus Site and/or Campus Facilities (car parking); (iv) Campus Site and/or Campus Facilities deliveries, FM supplies and waste collection; and (v) Project Co's construction traffic. Further details of the Access Strategy are set out in paragraphs 2 to 4 (Access Strategy) and 8 of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements Provisions about any Access Strategy to address an access which is required in the Operational Term not contemplated by the Access Strategy above is dealt with in Section 2 (Access Strategy and Amended Drainage Proposal) of Part 2 of Appendix A of the Board's Construction Requirements.				
4	Supplemental Drainage	A Supplemental Drainage Proposal is required where Project Co wants to install new surface water drainage	Draft to be submitted	Preferred Bidder	Pass / Fail	Construction Phase

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
	Proposal	connections from the Site to the existing surface water drain within the Orange Area. There is already an Initial Drainage Proposal, as set out in Appendix E of the Board's Construction Requirements, which primarily details the agreed connection points. This has to be complied with and supplemented by this Supplemental Drainage Proposal to include details of the design, construction, programme and Project Co's drainage proposals for the relevant drainage works. Prior to any drainage works taking place, Project Co (once appointed as Preferred Bidder) shall undertake a camera survey to document the condition of the existing surface water drainage system within the RIE Site. The camera survey will be carried out in accordance with Good Industry Practice and cover the full section of the RIE Site surface water drainage system that will serve the Site, from the point of the first connection from the Site to the drainage system to the point at which the drainage system discharges from the RIE Site to the Niddrie Burn. Four hard copies and an electronic version of the camera survey will be delivered by Project Co to the Board and no works may be carried out until the said camera survey has been carried out and requisite copies delivered by Project Co to the Board. Further details of the Drainage Proposals are set out in paragraphs 5 (Drainage Proposals) and 8 (Other General	for Dialogue Meeting 2. Also required to be submitted for Draft Final Tender and Final Tender.	Stage		

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Matters) of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements. **Amended Drainage Proposal** If when Project Co is carrying out any of the drainage or services connections as more fully described above, it transpires that the position within the Orange Area is different (including route, depth, size or condition of the service media within the Orange Area) from what was anticipated so there is a need to change the scope of the drainage or service connections, then Project Co requires to prepare an Amended Drainage Proposal to include additional detail, information and drawings as are available. Further details of the Amended Drainage Proposals are set out in paragraph 2 (Drainage Proposals) of Section 2 of Part 2 of Appendix A of the Board's Construction Requirements.				
5	Substation Proposal	The Sub-station Proposal must address the construction and maintenance repair and renewal of the access road in the Substation Access Area in the event that a Substation is being built on the Substation Site. **Substation Access Area**	Draft to be submitted for Dialogue Meeting 2.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term.

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		If Project Co needs to do works to construct an access road in Substation Access Area shown shaded blue and hatched black on Plan 2, then prior to any access Project Co will have to prepare a Substation Proposal which must include details of design, construction, programme and Project Co's Proposals for the relevant Sub-station Access Works. The Substation Proposal must: (a) be safe in respect of personnel or equipment on any part of the Campus and/or Campus Facilities; (b) be in accordance with Good Industry Practice and Law; (c) not materially adversely effect the flow or functioning of the Niddrie Burn; and (d) adequately protect the high voltage electricity cable running through the Substation Access Area. **Substation** Project Co also needs to provide information about the design and construction of the Substation and Substation HV Cable.	Also required to be submitted for Draft Final Tender and Final Tender.			

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Method Statement Maintenance of Substation HV Cable by Project Co. Further details of the Substation Proposals and the Substation and Substation HV Cable are set out in paragraphs 6 and 7 (Substation Access and Cables) of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements.				
6	Service Proposal (Service Strip and Foul Service Strip)	If Project Co wishes to do works (in each case as necessary in connection with the Works) to construct and lay: (a) service media through under over Service Strip (shown shaded yellow and hatched black on Plan 2) for the passage of water, sewage, drainage or oil, gas, electricity, telephone (and other telecommunications); and/or (b) foul drainage through under over Foul Service Strip (shown shaded yellow and hatched black on Plan 2A) for the passage of foul drainage, then Project Co requires to exhibit Scottish Water or other statutory authority/utility company approvals in relation to the works for the connection of service media from the Site to the mains sewer located on the RIE Site and provide a Project Co's Proposal which must detail the route and	Draft to be submitted for Dialogue Meeting 2. Also required to be submitted for Draft Final Tender and Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		depth of service media and detailed Method Statements for the maintenance, repair and renewal of the (i) service media through, under and over the Service Strip; and (ii) foul drainage through the Foul Service Strip. Further details of the Service Proposal are set out in Section 6 (Service Strip and Foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements. **Amended Service Proposal** If when Project Co is carrying out any of the drainage or services connections as more fully described above, it transpires that the position on Site is different (including route, depth, size or condition of the service media on Site) from what was anticipated so there is a need to change the scope of the drainage or service connections, then Project Co requires to prepare an Amended Service Proposal to include additional detail, information and drawings as are available. Further details of the Amended Service Proposal are set out in Section 3 (Service Strip and Foul Service Strip) of Part 2 of Appendix A of the Board's Construction Requirements.				

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
7	Connection Proposal	Project Co shall prepare a Connection Proposal in respect of the RIE Works. This should include a programme and the following specific connection information: (a) Link Building: (i) Design package for method of connection of the Facilities to the Link; and (ii) a Project Co's Proposal in respect of the connection to the Link Building; (b) Fire alarm systems: (i) The fire alarm system specification for the interface link between the fire alarm system within the Facilities and the RIE Facilities; (ii) design package information for method of installation for the interface link between the fire alarm system within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the interface link between the fire alarm system within the Facilities and the RIE Facilities; and (iv) a Method Statement for the maintenance and repair of the interface link between the fire alarm system within the Facilities and the RIE Facilities; (c) Security systems: (i) The security system specification for the interface link between the security system within the Facilities and the RIE Facilities; (ii) design package information for the proposed method of installation of the interface link between the security systems between the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the interface link between the security	Draft to be submitted for Dialogue Meeting 2. Also required to be submitted for Draft Final Tender and Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		systems within the Facilities and the RIE Facilities; and (iv) a Method Statement for the maintenance and repair of the interface link between the fire alarm systems within the Facilities and the RIE Facilities; (c) PTS: (i) The PTS specifications for the Facilities and the RIE Facilities; (ii) design package information for the proposed method of installation of the PTS within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the installation of the PTS within the Facilities and RIE Facilities; (iv) a Method Statement for the maintenance and repair of the PTS within the Facilities and RIE Facilities; The Board will confirm the route during Dialogue. (d) ICT: (i) The ICT specifications for the Facilities and the RIE Facilities; (ii) design package information for the proposed method of installation of the ICT within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the installation of the ICT within the Facilities and RIE Facilities; (iv) a Method Statement for the maintenance and repair of the ICT within the Facilities and RIE Facilities; The Board will confirm the route during Dialogue. Project Co should refer to Sub-section C of the Board's Construction Requirements as regards specifications and control requirements for such PTS, ICT, fire and security systems and information about the Link Building.				

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Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Further details of the Connection Proposal are set out in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements.				

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Appendix D – Dialogue Period Query proforma

Re-provision of RHSC + DCN
DIALOGUE PERIOD QUERY PROFORMA

Ref No:	
Dated Raised:	

Topic: **Technical** **Financial** **Commercial** **Administration** **Other**

Is this query considered commercial in confidence?	**Yes**	**No**

Query/Request:
Response:
Date of Response:

Please deliver response via:	**Letter**	**Fax**	**E mail**

Raised on behalf of [ ] by: [ ]

For RHSC DCN Use

RHSC DCN Ref No: **Date Received:**

Passed to	**NHSL Project Team**		**E&Y**		**Scottish Government other**	
			MacRoberts			
			Mott Mac			

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Appendix E – Reference Design Elements

Elements of the Reference Design	Status
Schedules of Accommodation	For spaces relating to Operational Functionality that will be used by NHS Lothian, and Non-Clinical Services spaces, the area of these rooms shall be a minimum and this minimum area is a mandatory requirement. The Reference Design Schedule of Accommodation needs to be read in conjunction with the Draft Schedule of Accommodation prepared by the Board as noted in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation). All other spaces are indicative.
Development Control Plan and Urban Design 1:1000/1:500	Mandatory - those elements defined under Operational Functionality i.e.: (i) the points of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; (iii) the adjacencies between different departments within the Facilities; and (iv) the corridor widths as shown are a minimum with these minimum widths being mandatory requirements. Indicative - everything else including Non-Clinical Services spaces.
Departmental Layouts 1:500	Mandatory - those elements defined under Operational Functionality i.e.: (i) the points of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; (iii) the adjacencies between different departments within the Facilities; and (iv) the corridor widths as shown are a minimum with these minimum widths being mandatory requirements. Indicative - all other elements (e.g. Non-Clinical Services spaces, layouts and locations for Hard FM spaces, locations and sizes for services risers and spaces etc).
General Arrangements Plans 1:200	Mandatory - those elements defined under Operational Functionality i.e.: (i) the points of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; (iii) the adjacencies between different departments within the Facilities;

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Elements of the Reference Design	Status
	(iv) the adjacencies between rooms within the Hospital departments; and(v) the corridor widths as shown are a minimum and these minimum widths are mandatory requirements. Indicative - all other elements (e.g. Non-Clinical Services spaces, layouts and locations for Hard FM spaces, locations and sizes for services risers and spaces, etc).
General Arrangement Elevations and Sections.	Indicative
Generic Room Layouts 1:50	Mandatory - those elements defined under Operational Functionality i.e.: The location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal room elevations. Indicative - All other elements.
Key Room Layouts 1:50	Mandatory - those elements defined under 'Operational Functionality' i.e.: The location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal room elevations. Indicative - All other elements.
Fire Strategy 1:200	Indicative
Interior Design and Artwork Concepts	Indicative
Wayfinding Strategy	Indicative

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Elements of the Reference Design	Status
Flexibility and expandability	Indicative
Supplies, Storage, Distribution and Waste Management (Soft FM)	Mandatory
Decontamination and Control of Infection (HAI-SCRIBE)	Indicative
BREEAM	Indicative
Geotechnical Site Investigation	N/A (Data Room status)
Decanting, Phasing,	Indicative
Traffic Impact Assessment and Traffic Management Plan	Indicative
Security Strategy	Indicative
ICT strategy	Indicative
Helipad	Indicative

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Appendix F – Thermal and Energy Model Parameters

1. Thermal Modelling Data

1.1 General

Project Co shall undertake Dynamic Thermal Energy Modelling to assess the energy performance and thermal performance of Project Co's Proposals.

The thermal performance of the Facilities shall be dynamically thermally modelled to the Project specific parameters, identified within Section 3 (*Board's Construction Requirements*) of Schedule Part 6 (*Construction Matters*). Thermal modelling shall inform the sizing of all heating, ventilation and comfort cooling requirements for Project Co's Proposals, inclusive of all natural ventilation pathway and overheating analysis.

In conjunction with energy performance, CO^2 emissions shall also be required to be equal to, or better than, the agreed Carbon Emissions requirements in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters).

The following documentation shall be used in providing the targeted thermal energy modelling requirements for the building;

- Scottish Health Technical Memorandums
- EnCO2de
- Health Building Notes
- CIBSE Design Guides
- Building Regulations (Scotland) Technical Standards

1.2 Building Envelope

The building envelope, construction and materials and the operation will have a significant impact on the efficient operation of the building engineering services installations. The thermal and energy model requires therefore to take cognisance of the project specific factors as detailed in the Reference Design proposals and Section 3 (*Board's Construction Requirements*) of Schedule Part 6 (*Construction Matters*).

The modelling exercise must take cognisance of the RIE Facilities and the associated Link Building to recognise the interface between the new and the existing buildings.

The Gross Internal Floor Area should be calculated by measuring the overall internal area of the building making a reduction for partitions, walls, voids and courtyards. The floor areas of internal rooms, circulation spaces and internal walkways should be included.

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The heated volume should take into account the height between the floor surface and the room ceiling and should exclude ceiling voids, pipe ducts and plant rooms and include for a 6% reduction due to walls/partition generally in accordance with HTM 07-02: EnCO2de – Making energy work in healthcare.

The building envelope performance design criteria should be based upon an air tightness figure measured in $m^3/hr/m^2$ @ 50Pa as appropriate to the type of facility and in accordance with Building Regulations (Scotland) Technical Standards.

Further methods of measuring and demonstrating the thermal efficiency of the building envelope such as thermal imaging can be utilised subject to agreement with the Board.

1.3 Ambient Weather Profile and Degree Day

The energy use of the building will be predicated by reference to the outside temperature and the Department of Health Estate and Facilities division publishes degree day data on a monthly basis.

The energy modelling shall be based on the above degree day data utilising the base temperature of 18.5° Celsius and Edinburgh degree day weather profile data.

1.4 Dynamic Thermal and Energy Modelling Simulation

A certified and industry approved Dynamic Simulation Model (DSM) software tool compliant with CIBSE Applications Manual AM11 shall be used to produce the thermal and energy model for the Facilities.

Bidders shall seek agreement from the Board of their proposed modelling tool which shall require to be the most updated version of either:-

- IES (Integrated Environmental Solutions) Programme
- TAS (Thermal Assessment Simulation) Programme

Future modelling tools may be available and Bidders shall obtain the agreement of the Board if they propose to use a certified alternative to those listed above.

1.5 Plant and Systems

The thermal and energy modelling shall incorporate all building services installations as required to maintain the Facilities within the operational parameters as defined in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters).

Any specific loads that Bidders deem to be excluded from the thermal and energy model, such as catering, etc., shall be quantified by Bidders and submitted to the Board for agreement and acceptance prior to any modelling works commencing.

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1.6 Group 2 to 3 Equipment

As part of the thermal and energy modelling exercise Bidders shall provide an assessment of the energy consumption of the known Group 2A, Group 2B and Group 3 equipment.

Bidders are to provide a proposed methodology to the Board to demonstrate the projected energy consumption of the Group 2A, Group 2B and Group 3 equipment.

Although this information shall not form part of the agreed energy or carbon emissions targets, it shall be utilised to provide the Board with an informed estimate of anticipated future energy consumptions and utilities costs to allow future budget allocations to be assessed.

2 Design Period

2.1 Modelling of Design Proposals

To calculate energy consumption loads for mechanical services, the CIBSE Building Energy Codes, calculation using the Degree Day Method and Edinburgh weather data for Space Heating and ventilation systems shall be used.

The occupancy, Equipment usage and departmental hours shall be identified by the Board. Any variations from this data proposed by Project Co shall be agreed with the Board prior to any modelling works commencing. Where assumptions are made by Project Co, these shall be in line with Good Industry Practice. This includes the application of factors set out in CIBSE Guide B for the thermal weight of the building, levels of operation and occupancy (Table B18.12), and the correction factor for the length of working day (table B18.13) as appropriate.

The exact correction factors to be applied in the modelling shall be provided by the Bidders and agreed with the Board prior to any modelling works commencing.

The degree day figure used shall be 18.5° Celsius as the base.

Space heating/cooling should be assessed on the required temperatures that are indicated on the room data sheets that will be provided by the Board to Bidders.

Design calculations shall be based on an external winter condition appropriate to Edinburgh and shall be compliant with external winter conditions detailed in the CIBSE design guides.

Thermal conductivity values shall be at a minimum as stated in the Scottish Building Regulations (Technical Standards) and shall reflect the actual building fabric design proposals.

The clinical usage and departmental hours shall be as indicated by the Board and any variations from these shall be proposed by the Bidders shall be agreed with the Board prior to any modelling works commencing.

All ventilation plant should be assessed on a maximum power and pressure drop within the air distribution systems as stated in the Scottish Building Regulations (Technical Standards) and in-line with Good Industry Practice.

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Domestic Hot Water (DHW), usage shall be based on a 24-hour usage period. Any variation to this shall be proposed by Bidders and agreed with the Board prior to any modelling works commencing.

The cold water storage provision should be based on a 24-hour day usage period. Any variation to this shall be proposed by Bidders and agreed with the Board prior to any modelling works commencing.

Lighting shall be modelled in accordance with the Board's Construction Requirements, Room Data Sheets and any specific guidance provided by the end-user through the Board.

All lighting designs shall comply with CIBSE lighting design guides and the general lighting strategy
proposed by Bidders and as detailed and agreed at Financial Close. Any variation to this shall be proposed by Bidders shall be agreed with the Board prior to any modelling works commencing.

The Dynamic Thermal Energy Model shall also be used by Bidders to show compliance of Project Co's Proposals with the Board's thermal and air quality requirements as identified in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters).

The dynamic simulation model shall use the CIBSE Design Summer Year (DSY) for Edinburgh in assessing the heating and, where required, cooling for each room within the Facilities. This information will inform the sizing of heating, ventilation and comfort cooling equipment within Project Co's Proposals.

The Dynamic Thermal Energy Model shall accurately model all proposed window/fenestration opening profiles, including taking in to account all constraints in the fenestration openings, including reveals, meshing and restrictors, when assessing overheating and air quality criteria for naturally ventilated rooms. Any automation and/or proposed opening parameters, for example temperature set points to open fenestration or any night time cooling strategies, shall be agreed in advance with the Authority.

The Dynamic Thermal Energy Model shall further allow for accurate thermal representation, and HVAC system sizing therein, for where doors are to be held open for operational or fire safety reasons.

2.2 Key Deliverable

The primary deliverable will be that Bidders shall provide detailed calculation and modelling documentation at design stage that demonstrates the proposed annual energy consumption of the Facilities by fuel type.

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Appendix G – Insurance Response Matrix
Part 1 Insurance Costs Matrices

A. Premium calculation for Construction Phase - Schedule Part 15 Section 1

Class of Required Insurance	Cover Period	Sum Insured/ Rateable Factor	Premium Rate	Premium excluding IPT	Insurance Premium Tax (IPT)	Brokers remuneration (specify type and amount)
1. Contractors "All Risks" Insurance						
2. Contractors “All Risks” Terrorism Insurance[1]						
3. Delay in Start Up Insurance						
4. Delay in Start Up Terrorism Insurance[2]						
5. Construction Third Party Liability Insurance						
6. Insurances required by law						
TOTALS						

[1] Bidder Note: whilst it is noted that the Terrorism Insurance will be renewable annually, the premium quoted in this table should represent the full cost for the duration of the Works.
[2] Bidder Note: whilst it is noted that the Terrorism Insurance will be renewable annually, the premium quoted in this table should represent the full cost for the duration of the Works.

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B. Premium calculation for Policies to be taken out and maintained from the Actual Completion Date - Schedule Part 15 Section 2

Class of Required Insurance	Cover Period	Sum Insured/ Rateable Factor	Premium Rate	Premium excluding IPT	Insurance Premium Tax (IPT)	Brokers remuneration (specify type and amount)
1. Property Damage "All Risks" Insurance						
2. Property Damage “All Risks” Terrorism Insurance						
3. Business Interruption Insurance						
4. Business Interruption Terrorism Insurance						
5. Third Party Public & Products Liability Insurance						
6. Insurances required by law						
TOTALS						

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C. Waiver of subrogation for Consort and Consort Parties

Please identify separately for all policies required by Schedule Part 15 Sections 1 and 2 the cost of obtaining a waiver of subrogation against Consort and Consort Parties including their respective suppliers and / or subcontractors of any tier pertaining to the RIE Project Agreement in accordance with clause 53.6.1 of the draft NPD Project Agreement.

Class of Required Insurance	**Cover Period**	**Premium excluding IPT**	**Insurance Premium Tax (IPT)**	**Brokers remuneration (specify type and amount)**
1. Contractors "All Risks" Insurance				
2. Delay in Start Up Insurance				
3. Construction Third Party Liability Insurance				
4. Insurances required by law (Construction Phase)				
5. Property Damage Insurance				
6. Business Interruption Insurance				
7. Third Party Public & Products Liability Insurance				
8. Insurances required by law (from Actual Completion Date)				
TOTALS				

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Part 2 Insurance Technical Matrix

A. Schedule Part 15 Section 1 of NPD Project Agreement

Class of Insurance	Insurer(s) Identity (N.B. Including any co-insurers or excess layer insurers)	Deductible each and every claim (N.B. Confirm any aggregate Deductible if applicable)	Agreement to the requirements Clause 53 (Insurance) (If not please identify areas of variation or alternative proposals)	Agreement to the requirements of Schedules Part 15 (Insurance Requirement) and Schedule Part 25 (Insurance Proceeds Account Agreement) (If not please identify areas of variation or alternative proposals)
1. Contractors "All Risks" Insurance				
2. Delay in Start Up Insurance				
3. Construction Third Party Liability Insurance				
4. Insurances required by law				

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B. Schedule Part 15 Section 2 of NPD Project Agreement

Class of Insurance	Insurer(s) Identity (N.B. Including any co-insurers or excess layer insurers)	Deductible each and every claim (N.B. Confirm any aggregate Deductible if applicable)	Agreement to the requirements of Clause 53 (Insurance) (If not please identify areas of variation or alternative proposals)	Agreement to the requirements of Schedules Part 15 (Insurance Requirement) and Schedule Part 25 (Insurance Proceeds Account Agreement) (If not please identify areas of variation or alternative proposals)
1. Property Damage "All Risks" Insurance				
2. Business Interruption Insurance				
3. Third Party Public & Products Liability Insurance				
4. Insurances required by law				

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Appendix H – Certificate of Non-Collusion and Non-Canvassing

CERTIFICATE OF NON-COLLUSION AND NON-CANVASSING

We acknowledge that any Bidder who directly or indirectly canvasses any member, official or employee of Lothian Health Board ("the Board") concerning the award of any contract in relation to the Project to re-provide services from the Royal Hospital for Sick Children, Child and adolescent Mental Health Services and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France will be disqualified from the bidding process and any Bid submitted by or on their behalf shall be disregarded.

Therefore, we hereby certify and undertake and bind and oblige ourselves to the Board and its successors that we have not canvassed or solicited nor will we in the future canvass or solicit any member, official or employee of the Board in connection with the award of the Project or any Bid or proposed Bid in connection therewith and we certify that, to the best of our knowledge and belief having made reasonable enquiry, our Relevant Persons (as hereinafter defined) have not so canvassed or solicited.

In this certificate and undertaking, "Relevant Person" shall mean, as applicable in relation to us, any party co-operating with us in tendering for the Project, fellow tender consortium member, joint venture, controlling shareholder, subsidiary or parent company or other company within any group of which we form part, or any other person directly or indirectly controlling or controlled by us.

The essence of tendering is that the Board shall receive *bona fide* competitive Bids from all persons tendering. In recognition of this principle:

I. We certify to the Board and its successors that the Bid submitted by us, or on our behalf, is a *bona fide* Bid, intended to be competitive and we have not fixed or adjusted the amount of the Bid or the rates or prices quoted therein by, or under, or in accordance with any agreement or arrangement with any other person.

II. We also certify to the Board and its successors that we and, to the best of our knowledge and belief having made reasonable enquiry, our Relevant Persons have not done and we hereby undertake and bind and oblige ourselves that we will not do at any time, any of the following acts:
   A. enter into any agreement or arrangement with any other person that he shall refrain from bidding or add to the amount of any Bid to be submitted; or
   B. offer or agree to pay or give any sum of money, inducement or valuable consideration directly or indirectly to any person for doing or having done or causing to be done, any act or omission in relation to the Bid or any other tender submitted to the Board in relation to the Project.

_____ in capacity of _____

Signature

duly authorised to act on behalf of _____

_____

_____

_____

_____

Date

in the presence of

_____ Witness

_____ Full name

_____ Address

Appendix I – Community Benefits

1 SOCIAL CONSIDERATIONS / COMMUNITY BENEFITS OVERVIEW

1.1 Background

The Board recognises the very significant training and employment opportunities delivery of this Project can create for the wider community and beyond throughout the Project Term. The Board also recognises that the Project has the potential to drive significant initiatives relating to regeneration, sustainability and social benefits, aligning with the Board's strategic objectives.

The Board is therefore incorporating a range of social considerations/Community Benefits (CB) Requirements into its procurement which will ultimately form contractual requirements under and in terms of Clause 73 (Community Benefits) of the NPD Project Agreement.

Project Co will work in partnership with the Board and where appropriate, the Edinburgh Partnership and the agencies listed in section 3.6 to deliver the Board's CB Requirements in respect of both the construction and operational phases of the Project.

1.2 Overview of the Board's CB Requirements

These are set out in Section 2 and comprise requirements for the following -:

- Targeted Recruitment and Training /Employment and Skills Plan(Section 2.1)
- Supply Chain Development (SMEs) (Section 2.2)
- Supply Chain Development (Social Enterprises) (Section 2.3)
- General CB Requirements (Section 2.4)

1.3 Bid Submission Requirements

These are detailed in Section 3.
In broad terms the Board's CB Requirements are expressed in general terms. Bidders are given freedom to provide proposals that best fit their delivery structure and procedures, split into construction phase proposals and operational phase proposals. Bidders are, however, required to propose specific financial consequences for failing to deliver these proposals, such payments to be reflected in Clause 73 of the NPD Project Agreement.
Bidders' responses will comprise completion of the various submission requirements, which are more fully set out in Section 3, but can be summarised as follows:

Section	Submission requirement	Approach to scoring
Section 3.1: Employability and Training – Construction phase	Completed ESP Completed CB Method Statement	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ITPD, as also referred to in section B6 of Appendix (ii) (Submission Requirements) of Volume 1 of the ITPD. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.2 – Employability	Completed ESP	Scored in accordance with

Section	Submission requirement	Approach to scoring
and Training – Operational phase	Completed CB Method Statement	section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ITPD, as also referred to in section B6 of Appendix (ii) (Submission Requirements) of Volume 1 of the ITPD. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.3 – Supply Chain Development, SME and Social Enterprise – Construction phase	Completed CB Method Statement for Construction phase	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ITPD, as also referred to in section B6 of Appendix (ii) (Submission Requirements) of Volume 1 of the ITPD. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.3 – Supply Chain Development, SME and Social Enterprise – Operational phase	Completed CB Method Statement for Operational phase	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ITPD, as also referred to in section B6 of Appendix (ii) (Submission Requirements) of Volume 1 of the ITPD. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.4 – Other Community Benefits	Bidders shall submit a Method Statement setting out any other proposals or measures they are willing to undertake to provide additional Community Benefits	Requirement to submit a Method Statement but not scored.

.Responses referred to here as “CB Method Statements” are referred to in the NPD Project Agreement as Project Co's Community Benefits Method Statements.

1.4 Role of Edinburgh Council

The Board is a partner in the Edinburgh Partnership, a community planning partnership for the city which brings together the public, community, voluntary and business sectors to deliver a better quality of life in Edinburgh. For further information see:

http://www.edinburgh.gov.uk/info/20162/edinburgh_partnership/1446/about_the_edinburgh_partnership
Members of the Partnership will not be precluded from working with Project Co to deliver the CB programme provided that any potential conflicts of interest are managed to the Board's satisfaction.

2 THE BOARD'S COMMUNITY BENEFITS REQUIREMENTS

2.1 Targeted Recruitment & Training/Employment and Skills Plan

The Board is committed to assisting unemployed people, encouraging access to quality sustainable employment and providing training opportunities relating to deliver of the Project.

This may include on-site training and assessment, or offsite training, or a mix of these.

The Board, based on the approach outlined by Construction Skills, and using benchmarks suggested in guidance produced by them relevant to employability and training measures in major health projects, has identified the following required outputs and volumes.

Work Placement (16-19 years)	16
Work Placement (14-16 years)	4
Curriculum support activities	14
Graduates	3
Apprentice starts	11
Existing apprentices	10
Apprentice completions	3
Jobs advertised through local employment vehicles	7
N/SVQ starts for subcontractors	21
N/SVQ completions for subcontractors	18
Training Plans for subcontractors	5
Supervisor training for subcontractors	10
Leadership and management training for subcontractors	9
Advanced health and safety training for subcontractors	11

2.2 Supply Chain Development: SMEs

Context

The long term sustainable development of the SME base is vital to driving sustainable economic growth within Lothian, Scotland and beyond. The Board, in furtherance of its own objectives and those of the Edinburgh Partnership of which it forms part, recognises the need to support the development of the SME sector by developing a procurement approach which ensures their exposure to procurement opportunities related to the Project.

Requirement

Project Co shall ensure that the Project Co advertises, and ensures that its sub-contractors:

- advertise all relevant subcontracts to be agreed with Bidders with reference to Bidders' method statements; and

- allow SMEs equal opportunities to tender provided they have the appropriate capacity, experience and financial standing (and without leading to discrimination against others in the market).

An SME is defined as a company that is a small or medium-sized company and is not a member of a large group. An SME has a turnover of up to 50m Euro per annum and has no more than 250 employees.

Notes

Bidders may wish to contact the organisations listed in section 3.6 in the context of developing their proposals to meet the above.

2.3 Supply Chain Development: Social Enterprises

Context

The Board supports the Scottish Government's policy on Social Enterprise and believes that Social Enterprises have a distinct and valuable role to play in helping to create a strong, sustainable and socially inclusive economy.

A Social Enterprise is a business with primarily social objectives whose surpluses are principally reinvested for that social purpose in the business or in the community rather than being driven by the need to maximise profit for shareholders and owners. Social Enterprise is a business model which offers the prospect of a greater equity of economic power and a more sustainable society - by combining market efficiency with social and environmental justice.

The approach is founded on the principle of building relationships and partnerships by integrating a community development vision, social outcomes, business objectives and local and national government goals. Social Enterprises are involved in a wide range of industries, from recycling, community transport, landscaping, catering, employment and training to event management. In accordance with its broader objectives and its objectives through the Edinburgh Partnership, the Board wishes its procurement process ensures that Social Enterprises are made aware of supply chain opportunities offered by the Project.

Requirements: General

Project Co shall ensure that Project Co shall advertise, and ensure that its sub-contractors:

- advertise all relevant subcontracts to be agreed with Bidders with reference to Bidders method statements; and
- allow Social Enterprises equal opportunities to tender provided they have the appropriate capacity, experience and financial standing (and without leading to discrimination against others in the market)

Notes

Bidders may wish to contact the agencies listed in section 3.7 for information on Social Enterprises and/or in the context of developing their proposals to meet the above.

As part of the Scottish Government's strategy to create an enterprising third sector, social enterprises are preparing to increase activity with commercial contractors, utilising national and local training, capacity building and promotional measures. A register of social enterprises that are interested in contract delivery has been created at ***www.readyforbusiness.org*** *to assist contractors to identify individual social enterprises and consortia, to assist planning with respect to community benefit delivery within a range of contract opportunities.*

Scottish Government initiatives are supported by a Tender Preparation programme for Third Sector Organisations throughout Scotland that will be delivered through Scottish Government Contract by CEiS and the Supplier Development Programme in 2010/11. Through these programmes, significant support and resource is being allocated to support social enterprises to be ready to engage with companies delivering commercial contracts, and in particular within a community benefits framework to ensure that procurement activity contributes to meeting The Board's aims of having a robust social enterprise sector delivering social and environmental benefits in the city.

2.4 Other Community Benefits

Consistent with its broader objectives, including its objectives through the Edinburgh Partnership, the Board seeks to maximise Community Benefits delivered by the Project.

Accordingly, bidders will require to set out any additional Community Benefits that they would be willing to provide at no additional cost over the period of the contract. **Submissions on these additional benefits will not be scored** but the Board considers that such submissions could, for example, include additional Bidder proposals to:

- undertake educational initiatives with community, voluntary and charitable organisations relevant to the Project and not falling under 2.1 and 2.2 above; or

- support or contribute in some other way to the work of community, voluntary and charitable organisations associated with the Project.

Bidders will be at liberty to put forward other proposals.

Clause 73 of the NPD Project Agreement shall operate to contractually oblige Project Co to deliver additional Community Benefits that it puts forward.

2.5 General Community Benefits Requirements

2.5.1 Monitoring

Project Co will be required to provide monitoring information at least quarterly in a format to be agreed with the Board. The primary function of the monitoring information will be to enable the Board to measure and produce reports on Project Co's performance against the Community Benefits objectives.

In particular:

- Targeted Recruitment and Training:
- Supply Chain Development (SMEs and Social Enterprises); and
- Other Benefits put forward by Project Co.

To comply with the Data Protection Act, all such monitoring and training documents must include a statement authorising Project Co to disclose personal data from the monitoring forms to the Board for the purposes of contract monitoring. This statement is to be signed by the individuals listed.

2.5.2 Insurances

Project Co shall ensure that insurance cover includes people aged 16 and over and staff from employment and training organisations when on work experience on-site.

2.5.3 Disclaimer

The Board will work with its partners to enable access to appropriate construction and operational training, jobseekers, SMEs and Social Enterprises to be available to Project Co.

This action, however, does not comprise or imply any promise on the part of the Board or their agents to provide suitable services, trainees, labour or resources.

Any action taken by the Board to facilitate relationships between Project Co and individuals/firms/agencies does not imply and should not be deemed to imply that they or its agents consider the individual, firm or agency as suitable for engagement by Project Co and/or its supply chain. Within this context, the Board will work with local agencies to help facilitate the achievement of the Community Benefits Requirements.

3 BID SUBMISSION REQUIREMENTS

Bid submission requirements in respect of the Board's CB requirements are summarised at 1.3 above. The following sets out the detail required.

3.1 Employment and Skills Plan: Construction Phase

Bidders are required to complete an Employment and Skills Plan (ESP) covering the employment and skills areas from the table below (as extended by the Bidder to cover the full period of construction). For further information on each of these categories, Bidders are referred to Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" (and Appendix A in particular).

Benchmarks are provided in 2.1 and constitute minimum outputs for Bidders' ESPs. Bidders are to use their own judgement as to what outputs beyond those minimums they consider are ultimately achievable in relation to the Project.

The output figures for the ESP should indicate the minimum outputs for each month against the relevant employment and skills areas. The "Summary" columns are also to be completed. Guidance on the employment and skills areas is also included within Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" *(and Appendix A in particular).*

Bidders are required to provide an unequivocal statement alongside their ESP that, if appointed, they will be contractually bound to deliver against what they have set out in the ESP, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement.

TEMPLATE EMPLOYMENT AND SKILLS PLAN (ESP)

Employment and Skills areas		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Summ No
1.	Work Placement (16-19 years) – persons													16
2.	Work Placement (14-16 years) – persons													4
3.	Curriculum Support Activities – individual engagement													14
4.	Graduates – persons													3
5.	Apprentice Starts - persons													11
6.	Existing apprentices - persons													10
7.	Apprentice Completions - persons													3
8.	Jobs Advertised Through proximate Employment Vehicles - number													7
9.	N/SVQ Starts for Subcontractors - persons													21
10.	N/SVQ Completions for Subcontractors - persons													18
11.	Training Plans for Subcontractors - number													5
12.	Supervisor Training for Subcontractors - persons													10
13.	Leadership and Management Training for Subcontractors - persons													9
14.	Advanced Health and Safety Training for Subcontractors - persons													11

Employment and Skills Method Statement

Bidders are also required to provide a detailed CB Method Statement setting out how they intend to implement the employment and training requirements of the Board and to deliver the ESP. The CB Method Statement should be restricted to **1000** words and clearly set out the proposed approach for delivering skills development against the employment and skills areas, covering the following:

- who in the organisation will be responsible for managing the training scheme and overseeing the proposals?
- which education and training providers will be involved with the delivery of the ESP?
- what types of accredited and non-accredited training are expected to be offered and who are expected to be the main beneficiaries of this training?
- which trades or occupational areas is it envisaged will be offering apprenticeship opportunities?
- what types of apprenticeships are expected to be offered (i.e., traditional programme led, advanced etc)?
- how will the target outputs as set out in the ESP be delivered?
- how will health and safety issues be managed?
- what actions will be taken to ensure the support of trade contractors and sub-contractors working on the project?
- how will compliance be managed and monitored with respect to the organisation's trade contractors and sub-contractors?
- how will the target outputs as set out in the ESP be delivered?
- how will health and safety issues be managed?
- How will monitoring of delivery of Community Benefits and reporting to the Board under Clause 73 of the NPD Project Agreement be undertaken?
- What financial consequence the bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against the ESP.

Bidders are referred to Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" *(and Appendix A in particular) for* further information and Appendix B of that document in particular.

3.2 Employment and skills plan: operational phase

Bidders should repeat the process outlined for the construction phase in respect of the operational phase (though the table should be completed not on a monthly basis but on an annual basis).

Note: The desired/expected outputs set out at Section 2.1 are for the Construction Phase only. The Board does not have desired/expected output figures for this element and it is a matter for bidders to consider, as against their specific approach to delivery.

3.3 Supply Chain Development: SMEs & Social Enterprise

Each Bidder must complete two separate CB Method Statements in accordance with the detail set out below, detailing what it proposes to do to meet the Board's SME and Social Enterprise supplier development objectives in respect of both the Construction Phase and Operational Phase (**800** word limit for each).

Bidders will be expected to have identified a source for any additional resources they will require to deliver the SME and Social Enterprise development, so that the requirements can be met with no additional costs to the Board. As part of the bid preparation, the Board expects Bidders to have contacted the agencies listed in Section 3.6 or other similar agencies of their choice.

Bidders are required to provide an unequivocal statement in the CB Method Statement that, if appointed, they will be contractually bound to deliver against what they have set out in their CB Method Statements, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement and the financial consequence the Bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against what they have set out.

The Small to Medium sized Enterprises / Social Enterprises CB Method Statements must respond to the following questions *(NOTE: Separate responses are to be provided for the Construction Phase and the Operational Phase):*

1.	Describe the activities that you will undertake to identify SMEs and Social Enterprises and assess each sector separately in their capacity to deliver works, services or supplies, that are required for all contracts in relation to the Project.
2.	Please quantify, both in hours and value, the commitment of you and your sub-contractors, in relation to this project, to the engagement with SME / SEs in specific capacity building support and in the development of partnership working and outline your overall approach.
3.	How will you ensure that your sub-contractors make all opportunities available to SMEs and Social Enterprises?
4.	Describe the anticipated outcomes for SMEs and Social Enterprises from the activities you have outlined in response to Q2 and Q3 and how would you monitor and assess the social and economic impact of your engagement with SMEs and Social Enterprises?
5.	How you will monitor delivery of Community Benefits and report to the Board under Clause 73 of the NPD Project Agreement?

3.4 Other Community Benefits

Bidders must provide a CB Method Statement setting out any other Community Benefits they are willing to deliver (see Section 2.4) and their proposals to monitor delivery of Community Benefits and report to the Board under Clause 73 of the NPD Project Agreement **(note: this CB Method Statement will not be scored)**.

Bidders are required to provide an unequivocal statement in the CB Method Statement that, if appointed, they will be contractually bound to deliver against what they have set out in their CB Method Statements, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement and the financial consequence the Bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against what they have set out. (**800** word limit)

3.5 FOR INFORMATION ONLY – SUPPORT AGENCIES

POSSIBLE RESOURCES

Note: Any action taken by the Board to facilitate relationships between Project Co and individuals/firms/agencies does not imply and should not be deemed to imply that they or its agents consider the individual, firm or agency as suitable for engagement by Project Co and/or its supply chain. Within this context, the Board will work with local agencies to help facilitate the achievement of the Community Benefits Requirements.

3.6.1 Recruitment and Training.

Agency	Remit	Contact	Position	Contact No.	Email	Web
Sector Skills CLIENTs :						
Construction Skills	Sector Skills for construction main trades. Advice on training and funding	Hugh McCafferty	Operations Manager	[redacted]	Hugh.McCafferty@[redacted]	http://www.constructionskills.net/
EU Skills	Sector Skills for Utilities, Gas and heating plumbers. Advice on training & funding	Jim Brown	Skills Director Scotland	[redacted]	jim.brown@[redacted]	www.euskills.co.uk
Summit Skills	Sector Skills for Electrical, Plumbing & Building Services. Advice on training and funding	Ian Stirrat	Operations Manger	[redacted]	ian.stirrat[redacted]	http://www.summitskills.org.uk
Edinburgh Partnership	Its role is to lead joint activity on issues facing the city and those living and working here	Saty Kaur		[redacted]	satvinder.kaur@[redacted]	http://www.edinburghnp.org.uk

3.6.2 SMEs

Agency	Remit	Contact	Position	Contact No.	Email	Web
Federation of Small Businesses	FSB Scotland campaigns for a better social, political and economic environment to work, learn and do business in.	Stewart Farmer	Regional Organiser (West of Scotland)	[redacted]	stewart.farmer@[redacted]	http://www.fsb.org.uk
Scottish Enterprise	SE help ambitious businesses in Scotland to grow and become more successful. SE support key industry sectors and develop the business environment to enhance Scotland's economy	Jillian Moffat	Senior Manager	[redacted]	jillian.moffat@[redacted]	http://www.scottish-enterprise.com

Social Enterprises

Agency	Remit	Contact	Position	Contact No.	Email	Web
Edinburgh Chamber of Commerce	Dynamic member-led organisation, working to support the local business community and specifically our strong network of member businesses.			0131 221 2999		http://www.edinburghchamber.co.uk
Ready For Business	Business support Services for SEs	Roddy Stewart	Business Adviser	[redacted]	roddy.stewart[redacted]	http://www.ceis.org.uk
Craigmillar & District Business Association	Association was created to provide a local networking and information forum for established businesses, local entrepreneurs and individuals within the Craigmillar area.			0131 661 8888	info@cre8te.co.uk	www.cdba.org.uk
Community Renewal	Work in local communities to and small	Nigel Green	Co-ordinator Edinburg	[redacted]	nigel@[redacted]	http://www.communityrenewal.org.uk/

	neighbourhoods to improve the wellbeing of families.		h			
WEACT (Stevenson College)	WEACT is our community-based employability organisation offering a range of services to clients across Edinburgh.			0131 447 2800 or [redacted]	weact@[redacted]	WEACT is our community-based employability organisation offering a range of services to clients across Edinburgh.

3.6.3 Other Sources

Agency	Contact No.	Address	Web
Job Centres:			
New Town Edinburgh	0845 604 3719		https://www.gov.uk/contact-jobcentre-plus
East Lothian	0845 604 3719	20 High Riggs, Edinburgh, Lothian.	
North House	0845 604 3719	Eskmills Park Station Road, Musselburgh, Midlothian.	
Schools:			
Castlebrae Community High School	0131 661 1282	2A Greendykes Road Edinburgh, Midlothian, EH16 4DP	http://castlebrae.org.uk/
Portobello High School	0131 669 2324	10 Duddingston Road Edinburgh EH15 1NF	http://portobellohighschool.org.uk
Holyrood High School	0131 661 5871	55 Duddingston Road West, Edinburgh, EH15 3ST	http://www.holyroodedin.ik.org/home.ikm
Liberton High School	0131 664 7514	328 Gilmerton Road, Edinburgh, EH17 7PT	www.liberton.edin.sch.uk/
Gracemount High School	0131 664 7440	Lasswade Road, Edinburgh, EH16 6TZ.	www.gracemounthighschool.co.uk/

Colleges:			
Jewel and Esk Valley College Queen Margaret University Stevenson College	0131 669 4400 0131 474 0000 0131 535 4600	Milton Road Campus, 24 Milton Road, EH15 2PP. QMU Drive, Musselburgh, EH21 6UU. Bankhead Avenue, Edinburgh, EH11 4DE.	http://www.jec.ac.uk/ http://www.qmu.ac.uk/ www.stevenson.ac.uk/

Appendix J - BIM Requirements for the Project

1. Project Set-up

1.1 Bidders are required to prepare a BIM Execution Plan for review by the Board. The BIM Execution Plan shall cover as a minimum the following topics:

b) Project information/description;

c) Key BIM stakeholders;

d) Goals and project objectives;

e) BIM objectives and uses;

f) Model management;

g) BIM deliverables and format;

h) Quality control system;

i) Data management; and

j) Frequency and content of BIM audits.

1.2 The BIM execution plan is to be prepared in accordance with BS 1192.

1.3 Bidders must use recognised industry BIM software platforms, suited to the various tasks to be fulfilled by both the design team and the supply chain, and establish principles of interoperability.

1.4 Bidders will provide a BIM overlay to the design team process map.

1.5 Bidders will appoint an Information Manager to see that the common data environment is set up and maintained and that the mechanism and technology for information exchange are in place and adhered to throughout the Construction Phase and the Operational Term.

1.6 Bidders will establish a through-life information management strategy including graphical and non-graphical information. Agree format for transfer of information into asset management systems will be developed, and a data classification system (eg Uniclass 2) established.

1.7 A Soft Landings implementation plan will be developed that follows the principles of the Government Soft Landings plan Policy dated September 2012.

2. Pre-construction Phase

2.1 3D visualisations, walk-throughs and images for User, Local Authority and other Stakeholder presentations and discussions at key project milestones are to be prepared.

2.2 Room layouts are to be prepared using ADB to include fully loaded 3D views.

2.3 The model is to include performance targets for key indicators, associated with associated provision in the design to measure data in operation and allow model-based comparisons between design intent and actual performance.

2.4 Data outputs in COBie format are to be prepared at key stages aligned to the process map, at a Level of Detail matching the stage requirement.

2.5 Specifications are to be based on a system that allows direct links between spatial BIM Models and the accompanying specifications and object attributes.

2.6 Read-only access to the BIM model gratis and within 24 hours is to be made available at the Board's request.

3. Construction Phase

3.1 The Board is to have read-only access to 4D construction sequencing output from model.

3.2 The model is to be regularly updated (every 2 weeks) to reflect material/component detailed selections or variations from those selected at design/tender stage.

3.3 Read-only access to the BIM model gratis and within 24 hours is to be made available at the Board's request.

4. Operational Term

4.1 The model shall be maintained throughout the Operational Term to reflect all planned maintenance and lifecycle works and modification should be made to reflect all changes implemented under Schedule 16 Change Protocol.

4.2 Read-only access to BIM model, gratis, and within 24 hours is to be made available at the Board's request.

4.3 Asset Management software is to be discussed with the Board but data should be held in recognised interchange format (e.g. COBie) to allow interoperability between recognised facilities management (CAFM) packages, recognised asset management packages and the BIM model.

5. Handback

5.1 Project Co will hand over ownership of the model to the Board at the Expiry Date.

5.2 At the Expiry Date, the model is to be fully updated model to reflect all changes during the Operational Term including specification details, operation and maintenance requirements and residual design life of all components and assemblies.

5.3 The on-going maintenance and replacement information is to be in a format to be agreed with the Board.

.

5.4 Project Co shall provide training in the operation of software to the Board.

A bright new future: A project to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France

"Re-provision of RHSC and DCN at Little France"

INVITATION TO SUBMIT FINAL TENDER

Volume 1

Revision A

Contract Notice Ref: 386758-2012 (2012/S 235-386758)

Lothian Health Board

Waverley Gate

2-4 Waterloo Place

Edinburgh

EH1 3EG

www.nhslothian.scot.nhs.co.uk

Issue and Revision Record:

Version	Date	Description
A	16 December 2013	ISFT issue

IMPORTANT NOTICE

The Invitation to Submit Final Tender (the "**Invitation**") has been prepared for the purpose of providing certain information to Bidders invited to submit their final tenders in the competition for the design, build, finance and maintenance of a project to enable the re-provision of services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France ("**the Project**").

In no circumstances shall the Board or their advisers, consultants, contractors, servants or agents incur any liability or responsibility arising out of or in respect of the issue of the Invitation.

Nothing in the Invitation shall be construed as legal, financial or tax advice.

Any summaries or descriptions of documents or contractual arrangements contained in any part of the Invitation cannot be and are not intended to be comprehensive, nor any substitute for the underlying documentation (whether existing or to be concluded in the future), and are in all respects qualified in their entirety by reference to them.

No legal relationship or other obligation shall arise between any Bidder and the Board unless and until the NPD Project Agreement has been formally executed in writing by the Board and the successful Bidder and any conditions precedent to its effectiveness have been fulfilled.

In this notice, references to the Invitation shall include all information contained herein and any other information (whether written, oral or in machine-readable form) or opinions made available by or on behalf of the Board, their advisers, consultants, contractors, servants or agents in connection with the Invitation or the Project including, without limitation, any additional information made available by the Board throughout the Dialogue Period.

Scots law shall be applicable to the Invitation and the Scottish Courts shall have exclusive jurisdiction.

Each Bidder's acceptance of delivery of the Invitation constitutes its agreement to, and acceptance of, the terms set forth in this Important Notice.

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1 INTRODUCTION

1.1 Purpose of Invitation to Submit Final Tender

This Invitation to Submit Final Tender (ISFT) is being issued in relation to the Official Journal of European Union (OJEU) notice *ref.386758-2012 (2012/S 235-386758)* published on 5 December 2012. The three Bidders shortlisted by the Board following completion of the Pre-Qualification Questionnaire and subsequent completion of Competitive Dialogue are invited to submit Final Tenders.

The ISFT describes the Board's needs and requirements and sets out how Final Tender will be conducted.

1.2 Structure of the Invitation to Submit Final Tender

The ISFT comprises four volumes of information as follows:

1.2.1 **Volume 1** contains background information on the Project, the conditions of participation, Final Tender requirements and how the Board intends to evaluate the Final Tender, award the Project and communicate with Bidders. The requirements are broadly set out in Appendices A, B and C of Volume 1.

1.2.2 **Volume 2** contains the contractual requirements which are set out in the NPD Project Agreement and schedules, (which include the draft Payment Mechanism) and Articles of Association and the Final Tender (Bidder Specific) NPD Project Agreement.

1.2.3 **Volume 3** contains the specific technical requirements of the Board for the Project including construction (clinical and non-clinical) requirements and Facilities standards, equipping requirements and facilities management requirements.

1.2.4 **Volume 4** comprises of details of the Data Room available to Bidders during the Tender Period.

1.3 Definitions within Invitation to Submit Final Tender

1.3.1 In terms of the interpretation of the ISFT, unless the context otherwise requires:

(a) The masculine includes the feminine and vice-versa;

(b) The singular includes the plural and vice versa;

(c) The words "include" and "including" shall be construed without limitation;

(d) Any reference to a person includes a reference to an individual, company, authority, board, association or other legal entity;

(e) Any reference to any directive, statute or statutory provision shall include any directive, statute, or statutory provision which amends or replaces or has amended, replaced consolidated or re-enacted it and shall include any subordinate legislation made under any directive or statute;

(f) Save as otherwise provided herein, any reference to a Volume shall be a reference to a Volume of the ISFT to; and

(g) Save as otherwise provided herein, any reference in this Volume 1 to a section shall be a reference to a section of this Volume 1.

1.3.2 The terms used in these instructions to Bidders shall, where the same have been defined in the NPD Project Agreement, bear the same meaning as in the NPD Project Agreement unless otherwise defined hereunder:

Additional Documentation Submission has the meaning given to it in Appendix C (ii) of Volume 1 of the ISFT;

Ancillary Agreements means the Memorandum and the Articles of Association;

Annual Service Payment has the meaning given to it in the NPD Project Agreement;

Bidder means each of

- B3*;*
- Integrated Health Solutions (Lothian) *; and*
- Mosaic

and **Bidders** shall be construed accordingly;

Bioquarter Site has the meaning given to it in the NPD Project Agreement;

Board has the meaning given to it in the NPD Project Agreement;

Board's Construction Requirements has the meaning given to it in the NPD Project Agreement;

Board Services has the meaning given to it in the NPD Project Agreement;

CAMHS means the Child and Adolescent Mental Health Service currently provided from the Royal Edinburgh Hospital, Morningside Place, Edinburgh.

Campus Facilities has the meaning given to it in the NPD Project Agreement;

Campus Site has the meaning given to it in the NPD Project Agreement;

Certificate of Non-Collusion and Non-Canvassing means the certificate of that name set out in Appendix H of Volume 1 of the ISFT*;*

CEC means the City of Edinburgh Council;

City Development means the department of City Development within the City of Edinburgh Council;

Conject means the Conject information channel, , provided by Conject Ltd, a web based construction collaboration portal utilised on the project by the Board.

Conject User Manual means the user manual for Conject set out in Volume 4 of the ISFT;

Consort has the meaning given to it in the NPD Project Agreement;

Core Evaluation Team means the principal assessment body for procurement, for Pre-Qualification Questionnaire, Dialogue and evaluation of the Final Tender;

Data room means the secure electronic data storage room that will be provided via Conject;

DCN means the Department of Clinical Neurosciences currently provided from the Western General Hospital on Crewe Road South, Edinburgh;

Dialogue Period Bulletin means a communication during the Final Tender Period of that name described in paragraph 4.5.2 (Communication Protocol) of Volume 1 of the ISFT;

Dialogue Period Query means a communication during the Final Tender Period of that name described in paragraph 4.5.2 (Communication Protocol) of Volume 1 of the ISFT;

Dialogue Period Query Proformas means the document provided within Appendix D of Volume 1 of the ISFT;

Draft Final Tender means the submission made by a Bidder during the Dialogue Period in accordance with Appendices A, B and C of Volume 1 of the ITPD;

Draft Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ISFT;

Enabling Works has the meaning given to it in paragraph 2.7.5 (Enabling Works) of Volume 1 of the ISFT;

Economic Cost has the meaning defined in paragraph 5.7.1 (Economic Cost) of Volume 1 of the ISFT;

Energy Centre means a dedicated autonomous energy centre to be provided as part of the Project;

Expiry Date has the meaning given to it in the NPD Project Agreement;

Environmental Matrix means the matrix contained in ISFT Volume 3, Schedule Part 6, Section 3, Appendix C*;*

Equalisation Adjustment has the meaning described at paragraph 5.7.1 (c) (Economic Cost) of Volume 1 of the ISFT;

Equipment Schedule means the document named such in Volume 3 of the ISFT;

Equipment Responsibility Matrix means the document named such in Volume 3 of the ISFT;

Facilities has the meaning given to it in the NPD Project Agreement;

Family Hotel has the meaning given to it in Schedule Part 6, Section 3, Sub-section D (Specific Clinical Requirements);

FOISA has the meaning given to it in the NPD Project Agreement**;**

Full Business Case or FBC means full business case of the Board;

Financial Close has the meaning given to it in the NPD Project Agreement;

Financial Model means an electronic model used for the purposes of this procurement as produced by a Bidder in support of the Bidder's Financial Submission (or by the Board in the case of the Shadow Bid Financial Model), having the attributes defined at paragraph 3.9 of this document*;*

Financial Proformas means the contents of Appendix B (ii) of Volume 1 of the ISFT;

Financial Submission means the elements of a Bidders proposals relating to financial issues as defined in Appendix B of Volume 1 of the ISFT and as relating to the Final Tender

Final Tender means a submission made by a Bidder in response to an Invitation to Submit Final Tender;

Final Tender (Bidder Specific) NPD Project Agreement means the Bidder specific NPD Project Agreement agreed with each Bidder during the Dialogue Period;

Final Tender Period means the period between the date of issue of the ISFT and the date of the Final Tender;

Generic Rooms has the meaning given to it in paragraph 2.5.2 (Room Layouts) of Volume 1 of the ISFT;

GICs means guaranteed investment certificates

Group 1 Equipment has the meaning given to it in the NPD Project Agreement;

Group 2A Equipment has the meaning given to it in the NPD Project Agreement;

Group 2B Equipment has the meaning given to it in the NPD Project Agreement;

Group 3 Equipment has the meaning given to it in the NPD Project Agreement;

Gross Internal Floor Area means the area of a building measured to the internal face of the perimeter walls at each floor level. The rules of measurement of gross internal floor area are defined in the latest edition of the RICS Code of Measuring Practice;

Hard FM has the meaning given to it in paragraph 2.11 (Facilities Management: Services to be provided by Project Co) of Volume 1 of the ISFT;

Helpdesk has the meaning given to it in the Service Level Specification contained in Volume 3 of the ISFT*;*

Indicative Elements of the Reference Design has the meaning given to it in paragraph 2.6 (Indicative Elements of the Reference Design) of Volume 1 of the ISFT;

Information Provided means the information provided to the Bidders by the Board or its advisers during the Final Tender Period;

Interface Proposals has the meaning given to it in the NPD Project Agreement;

Invitation to Participate in Dialogue or ITPD means the document(s) issued on the 11th March 2013 to successful PQQ candidates

Invitation to Submit Final Tender or ISFT means this document as more particularly described in paragraph 4.1 of Volume 1 of the ISFT as updated by the Board from time to time and issued by the Board to any shortlisted Bidders inviting them to submit their Final Tender;

IRR means internal rate of return;

Key Rooms has the meaning given to it in paragraph 2.5.2 (Rooms Layouts) of Volume 1 of the ISFT;

Key Stage Review the validation to be carried out by the Scottish Futures Trust on behalf of the Scottish Government at key stages of the procurement process;

Link Building has the meaning given to it in the NPD Project Agreement;

Mandatory Reference Design Requirements has the meaning given to it in paragraph 2.5 (Reference Design and Mandatory Reference Design Requirements) of Volume 1 of the ISFT;

Medical School means the University of Edinburgh Medical School, Chancellor's Building, 49 Little France Crescent, Edinburgh, EH16 4SB;

MLA means mandatory liquid assets;

NPD means non-profit distributing;

NPD Articles of Association means the mandatory articles of association of Project Co, which are prescribed by the SFT;

NPD Model means the non-profit distributing model ascribed by the Scottish Government which represents a development of the traditional PFI model;

NPD Project Agreement means either the base NPD Project Agreement and/or the Final Tender (Bidder Specific) NPD Project Agreement (as the context requires), both as more fully described in paragraph 3.3, as set out in Volume 2 of the ISFT and issued to each Bidder as part of the ISFT;;

NPV means net present value;

OBC means Outline Business Case of the Board relating to the Project;

Operational Functionality means

(a) the following matters as shown on the 1:500 scale development control plan and site plans;

(i) the point of access to and within the Site and the Facilities;

(ii) the relationship between one or more buildings that comprise the Facilities; and

(iii) the adjacencies between different hospital departments within the Facilities,

as indicated in the Reference Design;

(b) the following matters as shown on the 1:200 scale plans:

(i) the points of access to and within the Site and the Facilities;

(ii) the relationship between one or more buildings that comprise the Facilities;

(iii) the adjacencies between different hospital departments within the Facilities; and

(iv) the adjacencies between rooms within the hospital departments within the Facilities,

as indicated in the Reference Design;

(c) the quantity, description and areas (in square metres) and minimum critical dimensions of those rooms and spaces shown on the Draft Schedule of Accommodation, excluding Project Co spaces;

(d) the location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal elevations; and

(e) the location of and the inter-relationships between rooms within the departments within the Facilities, as indicated in the Reference Design;

but only insofar as each of the matters listed in (a) to (e) above relate to or affect Operational Use (with the exception of Non-Clinical Services);

Operational Use means the use of a room or space to the extent that it is used by the Board or its employees, tenants, agents and/or contractors (but not to avoid doubt Project Co staff) for carrying out the Board Services;

Payment Mechanism has the meaning given to it in the NPD Project Agreement;

Non-Clinical Services has the meaning given to it in the NPD Project Agreement;

NPD Project Agreement Submission has the meaning given to it in Appendix C(ii) of Volume 1 of the ISFT;

Petrol Station Site has the meaning given to it in the NPD Project Agreement;

Plan 2 has the meaning given to it in the NPD Project Agreement;

Plan 4 has the meaning given to it in the NPD Project Agreement;

Planning Permission in Principle or PPiP means planning permission in principle granted to the Board by CEC in relation to the Site;

Preferred Bidder means the Bidder identified by the Board after evaluation of each of the Final Tenders with which the Board wishes to enter into the NPD Project Agreement;

Pre-Qualification Questionnaire means the document of that name issued on 5 December 2012;

Price Evaluation means the process set out in paragraph 5.7 (Price Evaluation) of Volume 1 of the ISFT;

Price Evaluation Mark has the meaning given to it in paragraph 5.7.2 (Price Evaluation Mark) of Volume 1 of the ISFT;

Project has the meaning given to it in the NPD Project Agreement;

Public Interest Director has the meaning given to it in paragraph 3.2.1(b) (Public Interest Director) of Volume 1 of the ISFT;

Quality Evaluation Mark has the meaning given to it in paragraph 5.6.3 (Quality Evaluation Criteria) of Volume 1 of the ISFT;

Reference Design means the preliminary designs prepared by the Board and their advisers and contained in the Data Room;

Reference Design Elements means the documents referred to within Appendix E of Volume 1 of the ISFT;

Reference Design Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ISFT;

Regulations mean The Public Contracts (Scotland) Regulations 2012;

RIE Facilities has the meaning given to it in the NPD Project Agreement;

RIE Project Agreement has the meaning given to it in the NPD Project Agreement;

Royal Hospital for Sick Children and Department of Clinical Neurosciences means the premises and associated infrastructure proposed to be constructed as part of the Project and includes CAMHS;

RHSC means the Royal Hospital for Sick Children currently located at 9 Sciennes Road, Edinburgh EH9 1LF**;**

Schedule of Accommodation has the meaning given to it in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation) of Volume 1 of the ISFT;

Schedule of Operational/Design Notes means document contained in Volume 4 of the ISFT (Data Room);

Service Strip has the meaning given to it in the NPD Project Agreement;

SFT means the Scottish Futures Trust;

SFT's Standard Form NPD Project Agreement means the form of project agreement issued by SFT in June 2012, and as amended by SFT from time to time;

Site Survey means the survey of the Site procured by the Board and set out in paragraph 2.16 (Surveys and Dialogue Period Ground Investigations) of Volume 1 of the ISFT;

Soft FM Interface Specification means the specification contained in Volume 3 of the ISFT, Part 6, Section 3;

Solution means a solution developed by each Bidder in regard to the Project during the Dialogue Period;

Submission means the Final Tender Submission

Surplus has the meaning given to it in the NPD Project Agreement;

Technical Cost Proformas means the proformas included in Appendix A (v) of Volume 1 of the ISFT;

Tender Period means the Final Tender Period;

User Guide means the SFT user guide in relation to standard project agreements (hub DBFM and NPD Model); version 2 dated June 2012 as amended from time to time;

VAT means value added tax;

VFM means value for money;

VIE means vacuum insulated evaporator.

1.4 Overview of Project

The Project shall be to design, build, finance and maintain a new facility to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France.

In accordance with the Scottish Government's NPD initiative, the Board is seeking to procure a partner who will form a NPD company (the "**Project Co**") for the delivery of the Project. With the completion of the Dialogue Period, the Board is now issuing this ISFT.

The Project shall be based at the Campus Site. The Campus Site shall comprise the Retained Site (i.e. the site of the existing hospital and university buildings) and the Site (i.e. the site for the new Facilities) together with the Retained Estate (i.e. the existing hospital and university buildings) and the Facilities (i.e. the new hospital). The Retained Estate and Retained Site form part of an earlier PFI project entered into between the Board and Consort in 1998. Consort therefore operate (on behalf of the Board) the Retained Estate and the Retained Site.

The intention is that the Project shall construct standalone Facilities on the Site within the Campus Site at Little France as far as is practically possible. However, there shall be a physical link between the Facilities and the Retained Estate via a Link Building between the Facilities and the RIE Facilities at ground and first floor levels.

The Project will co-locate services currently provided at the RHSC located at Sciennes Road, Edinburgh, CAMHS at the Royal Edinburgh Hospital and DCN at the Western General Hospital, Edinburgh. Planning Permission in Principle has been received in respect of the Project.

This Project is regulated and governed by the Public Contracts (Scotland) Regulations 2012 and any contract awarded shall be to the Bidder who can offer the most economically advantageous tender in accordance with the Dialogue procedure.

1.5 Project Objectives and Drivers

1.5.1 The Board has developed a strategic clinical framework to underpin its approach to delivering Scotland's vision for sustainable, quality health care services and a healthier future for everyone.

The framework sets out the Board's principles for planning and delivering services and care in Lothian, and identifies how, through integrated working with partners and redesigning service around and with people, the Board will promote good health and deliver safer, more effective, person-centre healthcare.

The key principles are to:

1. focus on prevention and early intervention to help people keep well and anticipate care needs;
2. take a whole system approach to planning and managing integrated pathways of care, working with partner agencies in local authorities and voluntary sector;
3. reduce unnecessary variation in the way patients are cared for;
4. deliver services with the appropriate mix of staff skills, ensuring viable clinical staff rotas;
5. reduce spend on property and buildings as hospital stays reduce, to release money for direct patient services;
6. question active treatment which will not extend life or quality of life;
7. identify services that are not sustainable in the longer term and proactively plan a new way of delivering care;
8. make sure we stop procedures and treatments which add no clinical value; and
9. maximise the opportunities for use of new technologies to support health and healthcare.

The framework focuses on six strategic aims:

1. prioritise prevention, reduce inequalities and promote longer healthier lives for all;
2. put in place robust systems to deliver the best model of integrated care for our population – across primary, secondary and social care;
3. ensure that care is evidence based, incorporates best practice and innovation, and achieves sustainable care pathways for patients;
4. design healthcare systems to reliably and efficiently deliver the right care at the right time in the most appropriate setting;
5. involve patients and carers as equal partners, enabling individuals to manage their own health and wellbeing and that of their families; and
6. use resources – skilled people, technology, buildings and equipment - efficiently and effectively.

1.5.2 The Board is committed to increasing social capital and addressing inequalities, deriving benefit for the communities, such as through proactive application of community benefits clauses in its procurement processes.

1.5.3 Specific factors driving the need for change in children's and young people's services and clinical neurosciences are:

(a) The age and limitations of the current premises;
(b) The increase in age range of patients to be seen in the RHSC, up to age 16 years old, or 18 in some specialities.
(c) The need to deliver sustainable specialist services whilst meeting the challenge of relatively small numbers of patients and small numbers of clinical experts;
(d) The national policy for Paediatric Intensive Care Units in Scotland, which have been commissioned under NHS National Services since 2007, sited in two hospitals for children and young people;
(e) The need to deliver neurosurgery on the same site as adult and children's emergency departments; and
(f) The need to maintain strong links with the University of Edinburgh's Division of Clinical Neuroscience and their planned Institute of Neuroscience at Little France.

1.5.4 Clinical benefits of integrating the services into one building, supporting the Board's and national strategic ambitions include:

(a) The ability to deliver paediatric and adult neurosurgery in the same theatre suite, maximising the utilisation of specialist equipment (e.g. intra-operative MRI) and expert staff, with direct internal access to age-appropriate critical care and wards;
(b) Mental health services on the same site as acute hospital services for children and young people, supporting their physical as well as psychological care;
(c) Joint-working and economies of scale in high-cost specialist clinical areas such as theatres and radiology; and
(d) The opportunity to improve emergency access to services by incorporating a helipad on the roof of the Facilities.

1.6 Project Governance

1.6.1 The terminology used to describe project governance arrangements is as defined by the "Scottish Capital Investment Manual Programme and Project Organisation Guide".

1.6.2 The Investment Decision-Maker is Lothian Health Board, which is ultimately accountable for the Project.

1.6.3 The Board's Finance and Resources Committee (F&RC) has established a Project Steering Board, chaired by the Project Owner, who is NHS Lothian's Director of Finance.

1.6.4 The Project Owner has the executive responsibility for decision-making relating to the project. All decisions must be consistent with Board strategies, policies and procedures and delegated budgets or in line with any agreed derogations.

1.6.5 The Project Director has responsibility for delivering the project within the governance parameters set out.

1.6.6 The Project Steering Board remit shall be:

- To assist the Project Owner and Project Director in the decision-making process for issues relating to the Project;
- To support the Project Owner and Project Director in preparing submissions to the F&RC, to satisfy that Committee's assurance needs on governance and internal control and monitoring of key performance milestones;

- To serve as the Capital Management Group, with delegated authority to approve capital enabling works for the Project up to £250k, and will be the first place to review schemes higher than £250k; and
- To be the arbiter of matters arising from the implementation of the Project Design and the Strategic Delivery Programme.

1.6.7 Project Steering Board Membership:

- Project Owner (chair)
- Project Director
- Medical Director
- Non-executive member(s) of Lothian NHS Board
- Director of Operations for children's services and neuroscience services
- Project Clinical Director
- Director of Capital Planning and Projects
- Project Head of Commissioning and Service Redesign
- Head of Communications
- Employee Director
- A representative from the South-East & Tayside Regional Planning Group (SEAT)
- A representative from the Scottish Government
- A representative from the Scottish Futures Trust

1.6.8 The Project Director is supported by a project team comprising clinical experts and experienced NHS managers from capital planning, service management, finance and communications. Staff representation is fully integrated into the project with a full-time Partnership member of the team.

1.6.9 The Board's team are supplemented by specialist expertise from external financial, legal and technical advisers.

1.7 Programme

The following table sets out the key target milestones for the Project.

Task	Date
Invitation to Submit Final Tenders	16/12/13
Final Tender submission	13/01/14
Identify Preferred Bidder	17/03/14
Commercial and Financial Close	02/10/14
Construction commences	03/10/14
Completion date (target)	17/02/17
Hospital opening date	15/05/17

2 TECHNICAL OVERVIEW

2.1 Introduction

This section provides an overview of the technical requirements of the Project. In relation to all technical information provided by the Board, the Board reserves the right to amend all such information during the Final Tender, including without limitation the Mandatory Reference Design Requirements, Board's Construction Requirements and Equipment provisions.

2.2 The Site

The planned location for the new Facilities is at Little France, in the south east of Edinburgh, home to the RIE Facilities and the University of Edinburgh Medical School and adjacent to the Edinburgh Bioquarter Site development.

The site is bounded on the north by the Medical School, on the east by the RIE Facilities, to the south by existing residential buildings on Old Dalkeith Road and to the west by the Queen's Medical Research Institute and the main entrance road serving the Campus Site at Little France.

Also to the west of the Campus Site is an area of rising ground which slopes up to Craigmillar Castle. The view from the south-east over the site to the castle, with Arthur's Seat in the distance, is considered by City of Edinburgh Council (CEC) to be an important view on the southern approach to the city. The Site of the new Facilities is wholly within the red line boundary set out in Plan 1.

2.2.1 The Royal Infirmary of Edinburgh

The RIE Facilities is a major acute teaching hospital and has more than 900 inpatient beds. As described above the RIE Facilities were procured under a PFI contract between the Board and Consort in 1998 and was opened in 2003.

It is home to Scotland's busiest maternity unit – some 6000 babies are born at the RIE Facilities' "Simpson Centre for Reproductive Health" each year – and to Scotland's busiest emergency department.

With a 24-hour emergency department, it provides a wide range of acute medical and surgical services for patients from across the Lothian region and specialist services for people throughout the south east of Scotland and beyond.

2.2.2 University of Edinburgh

The Chancellor's Building, adjoining the RIE Facilities, is part of the University of Edinburgh Medical School and houses teaching facilities, the medical library and research laboratories. It is currently home to the Multiple Sclerosis and Euan MacDonald Motor Neurone Disease research centres. The Chancellor's Building was constructed by Consort under the terms of the RIE Project Agreement.

The University opened its Queen's Medical Research Institute in 2005 which represented a major milestone in the history of biomedical research in Edinburgh. The Queen's Medical Research Institute houses over 600 researchers and aims to tackle a wide range of diseases at the most fundamental cellular level. Facilities include MRI and other modern imaging technologies and supporting infrastructure.

The University's Scottish Centre for Regenerative Medicine was opened in the Edinburgh Bioquarter Site in 2011. The Anne Rowling Building is the most recent addition to the University's facilities and lies between the Chancellor's Building and the site proposed for the new Facilities

2.3 Stand Alone Requirements

Subject to Clause 9 (Nature of Land Interests) including without limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement, Appendix A of the Board's Construction Requirements and/or the Interface Proposals all buildings, facilities, services and associated works required to deliver the Project shall be contained within the Facilities and/or the Site and shall not be reliant upon any other buildings, facilities or services on the Retained Facilities and/or Retained Site (the "**Stand Alone Requirements**"). For the avoidance of doubt the following dedicated and autonomous elements shall be provided on the Site as part of the Project;

(a) an Energy Centre;
(b) the FM goods service yard; and
(c) Hard FM spaces.

2.4 Design and construction elements

2.4.1 Overview

The specific requirements for the Facilities to be provided are set out in the Board's Construction Requirements. This comprises: -

- General Requirements;
- Specific Clinical Requirements; and
- Specific Non-Clinical Requirements.

The Board's Construction Requirements are set out in Section 3 of Volume 3 of the ISFT and will ultimately form Section 3 of Schedule Part 6 (Board's Construction Requirements) of the NPD Project Agreement.

Using the work undertaken to date, the Board is seeking innovative proposals to meet its requirements.

The focus must be on providing age appropriate Facilities in a safe, caring and healing environment. This includes suitable Facilities for babies and young children, an adolescent inpatients zone, and accommodation for the adult population of DCN.

Areas for children, young people and adults should have their own identity within the integrated Facilities. At all times, the ethos, environment and needs of these different specialist areas has been considered in planning departmental relationships and patient pathways and this must be maintained.

Effective delivery of clinical services relies on close adjacencies between related specialties and disciplines. The design brief specifies that routes between departments should minimise travel time and distances for patients and staff in order to maximise clinical safety and efficiency.

The design will incorporate clearly identifiable, friendly and secure children's entrances to their outpatient and ward areas. There will be a separate main entrance to the DCN facilities. Recreation space and public facilities outside the wards will also be segregated as far as is practical.

The Board welcomes and will encourage Bidders to bring innovation, and expertise from within the UK and/or overseas to develop their own design proposals but it should be noted that certain elements of the design as they relate to aspects of Operational Functionality are mandatory, as described below and in Appendix E (Reference Design Elements) of Volume 1 of the ISFT.

2.4.2 Facilities to be provided

Facilities required for the Project include:

(a) inpatient wards;
(b) day case facilities;
(c) outpatient clinics;
(d) emergency department;
(e) operating theatres;
(f) radiology and physiology departments;
(g) rehabilitation facilities;
(h) laboratory facilities;
(i) support department;
(j) roof top helipad; and
(k) dedicated energy centre and goods delivery yard.

2.5 Reference Design and Mandatory Reference Design Requirements

The use of Reference Design in NPD projects is being promoted by the SFT and the Scottish Government.

A Reference Design for the Project has been developed and comprises mandatory elements and indicative elements. Procurement is proceeding on the basis of a Reference Design that the Board spent some time developing with significant clinical and stakeholder input prior to commencement of the Procurement. However, as set out in the ITPD, the Board reserves the right to amend the technical information provided. That Reference Design comprises mandatory elements and indicative elements.
The mandatory elements of the Reference Design (the "**Mandatory Reference Design Requirements**" are those elements of the Reference Design relating to Operational Functionality.
The definition used in the NPD Project Agreement is being applied to define the agreed Operational Functionality included in the Reference Design and is generally set out in the following constituents of the Reference Design:

- 1:500 Departmental Adjacency Layouts;
- 1:200 Departmental Layouts; and
- 1:50 Generic and Key Room Layouts.

Other areas of Operational Functionality are contained in other components within the Reference Design. Full details of the Mandatory Reference Design Requirements are set out in Appendix E (Reference Design Elements).

Bidders are required to develop design proposals which comply with the Mandatory Reference Design Requirements.

Bidders will be fully responsible for all elements of the design and construction of the Facilities including being responsible for verifying and satisfying themselves that the Mandatory Reference

Design Requirements can be designed, built, and operated to meet the Board's Construction Requirements.

The Board will consider, and may accept, changes to the Mandatory Reference Design Requirements (i.e. those elements relating to Operational Functionality) where a Bidder considers that those Mandatory Reference Design Requirements are not capable of meeting the Board's requirements (as described in paragraph 5.2.2 of Volume 1 of the ITPD).

Bidders are reminded of the definition of Operational Functionality which is the process to be adopted by Bidders in this regard is as follows:

- in the event that a Bidder considers that the Board's requirements cannot be delivered as a result of a specific Mandatory Reference Design Requirement, then the Bidder should notify the Board as to the specific element of the Reference Design where this is the case. Bidders must explain why the Board's requirements cannot be delivered and provide supporting information. In addition, alternative design proposals to comply with the Board's requirements shall be submitted by the Bidders as part of their Informal Submission for the next Dialogue Meeting;

- the Board will review whether they agree that the Reference Design does not comply with the Board's requirements and if so whether the alternative design proposals are acceptable (or any comments they have on the alternative design proposals);

- the Board will confirm to the relevant Bidder whether they agree and, if so, any comments the Board have on the alternative design proposals. In the event that this is agreed then the mandatory status of this element of the Reference Design will be relaxed.

The Board confirms that the drafting in the ITPD around Operational Functionality is not intended to mandate elements of the Reference Design which demonstrably do not affect or impact Operational Use (excluding Non-Clinical Services). For example, this would mean that consequential adjacencies could be amended. Consequential adjacencies are those adjacencies which occur in the Reference Design but not for any intentional operational reason.

For the avoidance of doubt, Bidders are advised that the Board shall be entitled to reject any proposed change which it considers does affect Operational Use (excluding Non-Clinical Services).

Following completion of the Reference Design some further adjustments were developed by the Board. These are set out in the Schedule of Proposed Adjustments contained in Volume 4 of the ISFT. Bidders are expected to incorporate these adjustments in their Final Tender. Bidders are required to provide a full breakdown of all costs (capex and opex) relating to item U1 "RHSC Specialist Paediatric Biochemistry Laboratory" included in the schedule.

2.5.1 Schedule of Accommodation and Reference Design Schedule of Accommodation

A schedule of accommodation has been developed by the Board to meet their requirements (the "**Draft Schedule of Accommodation**"). During the Dialogue Period a separate Draft Schedule of Accommodation was issued for the RHSC Specialist Paediatric Biochemistry Laboratories. While the Draft Schedule of Accommodation is not mandatory in itself, the areas set out within them are considered to be minimum areas. These minimum areas will only apply to elements which affect the Operational Functionality and Non-Clinical Services areas. Areas such as service spaces (including risers) and Hard FM spaces will be for the Bidders to determine since responsibility and risk for these non operational spaces will ultimately rest with Project Co.

A further schedule of accommodation is included as part of the Reference Design; this has been developed based on the room areas achieved, as drawn, in the Reference Design (the "**Reference**

Design Schedule of Accommodation"). Bidders are required to meet the minimum floor areas specified in the Draft Schedule of Accommodation however the Reference Design Schedule of Accommodation contains rooms where the area is less than the minimum requirements set out in the Draft Schedule of Accommodation. If Bidders cannot achieve the minimum floor areas for these rooms then it is acceptable, subject to agreement with the Board, for the rooms to be provided at the size achieved in the Reference Design. For the avoidance of doubt this will only apply to those individual rooms and not rooms of the same type or designation.

Bidders will be expected to develop a schedule of accommodation which will form part of their proposals (the "**Schedule of Accommodation**"). The basis of measurement of floor areas within that schedule shall be as set out in SHPN 04-01, Adult Inpatient Facilities, Figure 12: Diagram indicating communication, circulation and net floor areas.

This is considered by the Board to be an integral part of compliance with Quality Evaluation Criteria C12 and Bidders are required to confirm that the net areas within their designs have been measured in accordance with that SHPN.

Notwithstanding the foregoing, it has been agreed that the net area of Bedrooms within the Family Hotel will include the short length of entrance hall which gives access to the En-suite facilities.

Circulation and communication space indicated in the Reference Design is also considered to be indicative but any corridor widths specified will be treated as minimum requirements. This is also outlined paragraph 5.10 (Corridor Widths and Heights) of the Board's Construction Requirements. Therefore minimum corridor widths set out in the Reference Design are considered to be Mandatory Reference Design Requirements.

Any courtyards and terrace spaces are to be treated as communications spaces. These should be indicated on the Schedule of Accommodation submitted by Bidders but excluded from the measure of Gross Internal Floor Area.

2.5.2 Room Layouts

The 1:50 layout drawings included in the Reference Design cover the generic and key rooms only. Generic rooms are those rooms that are replicated more than four times across the Facilities ("**Generic Room"**). Key rooms are those that have critical operational requirements which the Board has identified for more detailed consideration and development at this early stage ("**Key Room"**). These include major spaces in the emergency department, operating theatre, radiology and outpatients departments. There are:

- 1839 rooms in total;
- 222 are covered under 88 Key Room types; and
- 756 are covered by 31 Generic Room types.

The Reference Design is developed in full at 1:500 and 1:200 scales. At 1:50 scale, where individual room layouts are detailed, the coverage is 53% of the total number of rooms (equating to 43% of the net floor area).

During Dialogue Bidders were required to develop 1:50 layout drawings for a selection of rooms. The Preferred Bidder will be required to develop 1:50 layout drawings for all remaining rooms prior to Financial Close.

2.5.3 Room Data Sheets

Standard format Room Data Sheets have not been prepared by the Board for the Project. The specific room requirements (the "**Room Information**") are detailed in a combination of the following documents:

- The Board's Construction Requirements;
- The Environmental Matrix;
- The Schedule of Operational Design Notes;
- The Equipment Schedule;
- The Equipment Responsibility Matrix;
- The Draft Schedule of Accommodation; and
- The Operational Functionality elements of the Reference Design.

Bidders will be required to develop Room Data Sheets, incorporating the Room Information, for those rooms for which 1:50 layout drawings were prepared in dialogue, as well as all Key Rooms and Generic Rooms. The Room Data Sheets will form part of the Bidders proposals.

The Preferred Bidder will be required to complete Room Data Sheets for all remaining rooms prior to Financial Close.

2.6 Indicative Elements of the Reference Design

During the preparation of the Mandatory Reference Design Requirements, other information has been generated both as a by-product of preparing the Reference Design itself and as a general Project requirement as follows:

(i) FM goods handling and distribution;
(ii) Structural engineering solutions;
(iii) Building services engineering solutions;
(iv) Servicing strategies and space allocations; and
(v) Hard FM solutions and space allocations.

This constitutes the "**Indicative Elements of the Reference Design**".

Such information is issued to the Bidders for "information only" so that they may understand the intent of the Reference Design. Bidders must however refer to the Board's Construction Requirements for the detailed requirements for all such Indicative Elements of the Reference Design for which they will ultimately carry the risk. Bidders are advised that the Board's Construction Requirements will always take precedence over the Reference Design for matters which do not define Operational Functionality. The full distinction between Mandatory Reference Design Requirements and Indicative Elements of the Reference Design are set out in Appendix E (Reference Design Elements).

2.7 Interface and Enabling Works

Introduction

The section is an overview of:

1. General background and information about the Works – see paragraph 2.7.1;

2. Works to be designed, constructed and replaced, repaired, renewed and maintained by Project Co as part of the Project. Sometimes these works are on the Site or on the RIE Site or Campus Site or even off the Campus Site – see paragraphs 2.7.2 and 2.7.3;

3. Works to be designed and constructed by Project Co as part of the Project but not intended to be replaced, repaired, renewed and maintained by Project Co – see paragraph 2.7.4;

4. Works which are being carried out by others and not intended to form part of the Project but are taking place at the Campus Site or off the Campus Site but which are nevertheless pertinent to the operations at the Campus Site as a whole – see paragraph 2.7.5;

2.7.1 General information relevant to the Works

The permanent and temporary Works and all construction operations for the Project should, save where expressly provided otherwise, generally be designed and constructed to enable them to be carried out and where appropriate replaced, repaired, renewed and maintained on and from within the Site.

The Site is part of the Campus Site and Project Co has to be aware of and plan and programme the Works having regard to the other activities and operations ongoing at the Campus Site.

At some points it may be necessary temporarily for Project Co to enter or have access across other parts of the Campus Site for construction activities and the Board has secured a number of rights for Project Co in respect of such other parts of the Campus Site.

As well as operations on the Site, Project Co will be entitled to use Car Park E for a site compound during the Construction Phase for the Works, subject to a number of restrictions on use as detailed in Section 3 (Site Compound/Car Park E) of Appendix A of the Board's Construction Requirements and Clause 9 (Nature of Land Interests) including with limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement. Further, in the event any activities on the Site involve oversailing any part of the Retained Site and/or the Retained Facilities then Project Co will require to develop an Oversail Strategy as detailed in Section 4 (Oversail) of Appendix A of the Board's Construction Requirements.

Where any construction and/or replacement, repair, renewal or maintenance activities are permitted at the Campus Site but off the Site then these activities are restricted to and must be carried out in accordance with the rights secured for such activities which rights are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement and such rights are subject to a number of conditions being met which conditions are further detailed in Appendix A (Interface with Campus Site and/or Campus Facilities) of the Board's Construction Requirements. Further restrictions on conditions and other information governing design, construction and replacement, repair, renewal and maintenance activities are detailed in the Board's Construction Requirements and Services Requirements.

Bidder should refer to section C (iv) on Interface Proposals.

2.7.2 Links with RIE

(a) Link Building

As set out in paragraph 2.3 (Stand Alone Requirements) the new Facilities shall be delivered as a standalone new build. However, the Facilities will be physically linked to the RIE Facilities at ground

and first floor levels. The part of the RIE Facilities to which the Facilities will be linked is called the Link Building.

The Link Building is being constructed as part of the key enabling works described in paragraph 2.7.5 (Enabling Works). Its construction is not intended to be part of the Project and it is intended to be completed prior to the Works commencing on Site. The Link Building shall ensure improved clinical functionality and service delivery, particularly between the emergency departments, operating theatres and critical care departments in the RIE Facilities and the Facilities. Project Co will be responsible for designing and constructing the Facilities to physically link to the RIE Facilities at the Link Building interface point as set out in Appendix B (Interface Output Specification) of the Board's Construction Requirements.

(b) RIE Works within the Campus Site but outside the Site boundary and maintained by Project Co

There shall also be building services links between the new Facilities and the RIE Facilities in respect of building services and other connections in terms of: -

- infrastructure associated with ICT;
- a pneumatic tube system (PTS);
- fire alarm system; and
- surface water drainage connections.

A new PTS will be designed and built which will run from the Facilities to the pharmacy and laboratories within the RIE Facilities. An ICT system will be designed and built which will run from the Facilities to link to the Board's ICT equipment/systems within the RIE Facilities. The Board will advise Project Co of the route for the PTS and ICT within the RIE Facilities. The Board will procure that Project Co will be given access to the RIE Facilities for the installation of the PTS and ICT and Project Co will be responsible for replacing, repairing, renewing and maintaining the PTS and ICT which have been installed as part of the Works. The Board will procure access for constructing, replacing, repairing, renewing and maintaining, PTS and ICT within the RIE Facilities, such rights of access are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement but are subject to design, construction and other information being provided to and approved by the Board and Consort about the PTS and ICT systems as detailed in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see sections Appendix A of the Board's Construction Requirements.

The fire system for the Facilities will have to be designed and constructed and replaced, repaired, renewed and maintained such that they will be connected to, communicate and operate with the fire system at RIE Facilities. It is envisaged that such connections and a control box will be proximate to or within the Link Building. The rights to make and replace, repair, renew and maintain such connections are subject to design, construction and other information being provided to and approved by the Board and Consort about the fire system for the Facilities as detailed in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see paragraph 4 of the Board's Construction Requirements.

(c) Service Strip / Foul Drainage

There may also be connections into some existing infrastructure for foul drainage. If Project Co requires to connect the foul drainage systems for the Facilities into the existing foul and surface

water drainage systems for RIE Facilities then foul drainage systems must be designed and constructed by Project Co such that they may be connected to foul drainage systems only at the agreed connection points in the Initial Drainage Proposal or within the Foul Service Strip shown shaded yellow and hatched black on Plan 2A serving the RIE Facilities. The Board will procure that Project Co will be given access to specified places and connections points on the RIE Site. Project Co will be responsible for replacing, repairing, renewing and maintaining the foul drainage systems serving the Facilities and the connections. The Board will procure access for Project Co constructing, replacing, repairing, renewing and maintaining the foul drainage systems serving the Facilities and connections as are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement, but are subject to design, construction and other information being provided to and approved by the Board and Consort about the foul drainage systems serving the Facilities as detailed in Section 6 (Service Strip and foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix A. For more information about these systems please also see paragraphs 4, 6 and 8 of the Board's Construction Requirements and the Initial Drainage Proposal

A list of Interface Proposals from Bidders is required for those elements of the new Facility which will have to interface with the existing RIE Facilities and infrastructure serving RIE. These are detailed in Appendix A of the Board's Construction Requirements and summarised in Appendix C (iv) (Interface Proposals) of Volume 1 of the ISFT.

As regards design and construction of any electrical, gas and water connections these must all be independent services serving the Facilities and are not intended to connect into any such services serving RIE Facilities or the rest of the Campus Site and/or Campus Facilities. However wherever any such services have to be installed on the RIE Site, the locations for such services are restricted to certain areas, including the Service Strip which is shown shaded yellow and hatched black on Plan 2. Project Co will be responsible for design and construction and replacing, repairing, renewing and maintaining such services serving the Facilities. The Board will procure for Project Co access for such rights of access for constructing replacing, repairing, renewing and maintaining such services as are detailed in Section 3 (Ancillary Rights) of Schedule Part 5 (Land Matters) of the NPD Project Agreement but are subject to design, construction and other information being provided to and approved by the Board and Consort about the services as detailed in Section 6 (Service Strip and Foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements and other applicable provisions of such Appendix. For more information about these systems please also paragraphs 4, 6 and 8 of the Board's Construction Requirements.

2.7.3 Other Works outside Campus Site

The Board has identified other works (the Off Site Works on the Bioquarter Site) which will be required to be carried out, by Project Co, outwith the Campus Site. This may include the provision of a dedicated Scottish Power Substation for the Project which may be located adjacent to Car Park F at the Campus Site in the area outlined in blue on Plan 4 although Project Co is invited to suggest alternative locations for any suitable power source outwith the Campus Site. If required, access to the Substation, if constructed adjacent to Car Park F detailed above, for construction and ongoing maintenance may be via the area shaded blue and hatched black on Plan 4. The cable route to the Facilities will be agreed with the Board and must enter the Site via the Service Strip (shown shaded yellow and hatched in black on Plan 2) and the cable route may not cross the RIE Site at any other point.

2.7.4 Retained Estate Handback Infrastructure

The Board has identified the following RIE Works which will be required to be carried out on the Campus Site but outwith the Site boundary. These works shall result in the Retained Estate

Handback Infrastructure and shall be Works carried out by Project Co but upon completion will not be maintained by Project Co but by or on behalf of the Board by or on behalf of Consort. These Works include the design and construction of:

(a) Hospital Square Infrastructure;
(b) Cycle Path Infrastructure;
(c) Petrol Station Site; and
(d) Drainage Infrastructure.

The Retained Estate Handback Infrastructure is more fully described in paragraph 4 of the Board's Construction Requirements.

For a summary of the proposed Petrol Station Works, the Petrol Station provisional sum and relevant background reports, Bidders should refer to Appendix L (Petrol Station Site) of the Volume 1 of the ISFT. This should be read in conjunction with the relevant updates to Volume 2 and Volume 3 of the ISFT.

2.7.5 Enabling Works

(a) RIE Enabling Works

The Board has identified the following enabling works (the "**RIE Enabling Works**") which will be required to be carried out on the Campus Site to meet planning requirements for the Project. These key enabling works will be carried out by or on behalf of the Board by or on behalf of Consort. These works are not intended to form part of the Project and it is intended they are completed or substantially completed prior to any part of the Works commencing on Site. The key enabling works, and their programmed completion dates, are described here for information purposes only.

(i) Flood Protection Works: which means the enhancement of existing flood protection measures at the Campus Site, to be completed October 2014;

(ii) Road Infrastructure Works: which means changes to the road and transport infrastructure at the Campus Site , including but not limited to the creation of a public transport terminus to the east of RIE Facilities, new bus stances and revision of existing car parking, to be completed March 2015;

(iii) VIE Relocation Works: which means relocation of the existing VIE plant serving RIE Facilities to another location on the RIE Site. Separate VIE plant is required for the Facilities to be completed December 2013;

(iv) Link Building Works: which means the building which is to be part of RIE Facilities to which the new Facilities will be connected at ground and first floor levels described in paragraph 2.7.1(a) above, to be completed December 2014;

(v) Service Diversion Works: which means the diversion of certain services such as electricity, water, gas, that serve RIE Facilities and are currently located on under or over the Site to positions outwith the Site to new positions within the RIE Site. However Project Co should note that not all redundant services are being removed and grubbing up of any diverted and redundant services will be the responsibility of Project Co as part of the Works. For the avoidance of doubt there shall be no diversion of the County sewer, the crèche's sewer and connection, the crèche's storm water sewer which it is believed run under the Site, to be completed October 2014;

(vi) Sewer Diversion Works: which means the diversion of trunk sewers currently located in the Site to positions on the perimeter but still within the Site to new positions within the RIE Site, to be completed March 2014;

(vii) Clinical Facilities: Reconfiguration/alteration of a number of clinical facilities within RIE Facilities; and

(viii) Way Finding: which means the installation of new comprehensive way-finding measures across the Campus at Little France (new signage and directional indicators as necessary).

(b) Flood Works

Off-Site Flood Protection Works – It is proposed to construct flood defence walls (approximately 1000mm high) to both sides of the Niddrie Burn in the Nether Craigour area upstream of the Old Dalkeith Road bridge to provide improved flood protection to the Campus Site. These works will be procured under a separate contract and do not form part of the Project.

2.8 BREEAM

Bidder's designs must achieve, as minimum, a "Very Good" BREEAM rating in line with the requirements for healthcare facilities as set out in the BREEAM Scheme Document for New Construction (SD5073) 2011. The designs must also achieve as a minimum, an "Excellent" level of performance for credit ENE 01 *Reduction of Emissions* in accordance with the requirements in the BREEAM Scheme Document for New Construction (SD5073).

2.9 Sustainable Design and Quality

Bidders are required to promote sustainable development by demonstrating an integrated approach to the social, environmental and economic well-being of the area served, now and for future generations. The Facilities will reflect the objectives of any local agenda strategy supported by the CEC and also satisfy the requirements of all health and social care guidance notes, as set out in Board's Construction Requirements associated with sustainability and environmental performance.

2.10 Community Benefits

The Board recognises the importance of sustaining the community and delivering against social considerations. As well as providing significant training and employment opportunities for the full Project Term, the Project also has the potential to drive significant initiatives relating to regeneration, sustainability and social benefits, aligning with the Board's strategic objectives.

Community Benefits clauses set out within Clause 73 (Community Benefits) of the NPD Project Agreement support this agenda. Provisions relevant to training and appropriate measures regarding supply chain contracts and engagement with small and medium sized enterprises and supported businesses are recognised as examples of the elements that may be taken into account.
Project Co will work in partnership with the Board and where appropriate, the Edinburgh Partnership and the agencies listed in paragraph 3.6 of Appendix I (Community Benefits) to deliver the Board's requirements in respect of both the Construction Phase and Operational Term of the Project.

Please refer to Appendix I and criteria B6 of Appendix A (ii) which set out the Board's approach to social considerations/Community Benefits and how Bidder proposals in these areas will be taken into account.

2.11 Facilities Management - Services to be provided by Project Co

The interface of facilities management (FM) services provided across the Campus Site will be addressed through the Little France Campus Working Group.

Project Co will be required to provide the Services which shall be a proactive facilities management and lifecycle replacement service. The key elements of the Services shall include, but not be limited to:

- Contract management;
- Performance management and monitoring via a helpdesk facility;
- Programmed and unprogrammed maintenance work of the mechanical, electrical and building fabric components of the Facilities;
- Procurement and management of Utilities;
- Lifecycle replacement of the mechanical, electrical and building fabric components of the Facilities, including all floor coverings;
- Hard landscaping maintenance;
- External façade cleaning / window cleaning; and
- Periodic cleaning of vents, extractors and luminaires.

For the avoidance of doubt, Bidders should note that the following items are excluded from the Services and will be delivered by the Board (or third party providers):

- Portable Appliance Testing; and
- Redecoration of walls and ceilings.

The detailed requirements for above are set out in Volume 3 of the ISFT and will ultimately become Schedule Part 12 (Service Requirements) of the NPD Project Agreement.

2.12 Services to be provided by the Board

Delivery of all Clinical Services in the Facilities will be the responsibility of the Board.
It is anticipated that soft FM services will be provided by a combination of the Board and third party providers contracted with the Board. There will be a number of operational interfaces not only with the Board's team but also the FM staff working within the RIE Facilities and so Project Co shall be required to adopt a collaborative approach to interfaces so that hard and soft facilities services are provided by Project Co, the Board and the RIE FM team effectively and in adherence with Board policies. Key to the success of that relationship will be the quality of the team and clarity of the agreement between the parties.

To assist Bidders in developing their proposals and understanding the interfaces with the Board and third party providers, information on the Board's proposed delivery strategies has been provided within Schedule Part 6 (Board's Construction Requirements), section 3, Sub-section E (Specific Non-Clinical Requirements) of the NPD Project Agreement covering items such as but not limited to:

- Linen Services;
- Waste Management/ Disposal;
- Materials Management;
- Portering Services;
- Catering Services;
- Routine, Periodic and Specialist cleaning;

- Domestic Services; and
- Delivery Area.

In addition the Board will be responsible for the maintenance and lifecycle replacement of Equipment that the Board is responsible for as set out in paragraph 2.15 (Equipment) and the Board Services.

2.13 ICT

The Project includes the design, construction and maintenance of comprehensive and robust infrastructure (e.g. containment, cabling and node rooms) for the Facilities in accordance with the requirements of the Board's Construction Requirements.

The Board will install hardware (e.g. servers, PCs, printers, scanners), make the final connections (at the application and in computer rooms) and commission the operational system. Future management of the telephone system and IT helpdesk will not form part of Project Co's scope of the Services. Instead, the telephone system and switchboard will be managed by the Board. The IT helpdesk service will also be provided by the Board.

A responsibility matrix relating to the ICT installations is contained in the Board's Construction Requirements.

2.14 Retail opportunities

The provision of catering and retail services within the Facilities does not form part of the Project. Catering and retail services shall be provided by the Board and associated parties (such as voluntary and/ or charitable organisations). These will be part of the Board Services.

2.15 Equipment

2.15.1 Equipment documentation

The following documents are contained within Volume 3 of the ISFT, which outline the Board's requirements in relation to Equipment and associated responsibilities:

(a) Equipment Schedule which shows all Equipment (Group 1, Group 2A, Group 2B and Group 3) which will be installed or anticipated to be installed in the Facilities presented on a room by room basis;
(b) Supplemental Equipment Schedule for U1 – RHSC Specialist Paediatric Biochemistry Laboratories: and

(c) Equipment Responsibility Matrix which shows for each different item of Equipment, the split of responsibilities between Project Co and the Board.

2.15.2 Groups of Equipment

Equipment included for the Project will include new equipment replacement, transfer and fit out of existing equipment, upgrade of existing equipment and new equipment included in developments.

(a) Group 1 Equipment

This is Equipment fixed to the building fabric (including fixed furniture e.g. cabinets, boards, blinds, brackets, shelves, TV brackets and illuminators) and/or attached to, or forming part of the building services (e.g. sanitary ware, sockets, outlets IT and medical, theatre lights, luminaries and pendants etc).

Project Co will generally be responsible for all Group 1 Equipment including specification, procurement, installation, maintenance and Lifecycle Replacement. However, the Board shall specify the details (both quantities and specification) for certain key items of Group 1 Equipment which are more clinical in nature (e.g. pendants in theatres and critical care).

The quantities specified for Group 1 Equipment in the Equipment Schedule are considered to be indicative by the Board. However, such quantities of Group 1 Equipment represent the minimum quantities acceptable to the Board. The exception to this are those items of Group 1 Equipment which the Board wish to specify – these are identified on the Equipment Schedule and will be considered to be mandatory.

(b) Group 2A Equipment

Project Co will only be responsible for the installation of Group 2A Equipment (and the installation of the replacement equipment at lifecycle intervals). The Board will be responsible for all other aspects of Group 2A Equipment (such as specification, procurement, maintenance and Lifecycle Replacement). Project Co will be responsible for designing Facilities which allow the Board to carry out their obligations in relation to Group 2A Equipment (including operation).

(c) Group 2B and Group 3 Equipment

The Board will be wholly responsible for all Group 2B and Group 3 Equipment including specification, procurement, installation, maintenance and Lifecycle Replacement. Project Co will not be responsible for any aspect of Group 2B or Group 3 Equipment however Project Co will be responsible for designing Facilities which allow the Board to carry out their obligations in relation to Group 2B and Group 3 Equipment (including operation).

Equipment included for the Project will include new Equipment replacement, transfer and fit out of existing equipment, upgrade of existing Equipment and new Equipment included in developments.

2.16 Surveys and Dialogue Period Ground Investigations

The ground investigation surveys which have been carried out to date are summarised in Volume 4 Data Room Contents. Warranties are not provided for these surveys.

The Board procured a Site Survey, the results of which were made available through the issue of the Factual Report via CLAR-00133 to all bidders. The Site Survey incorporated the agreed Bidder comments.

The Board shall not warrant this Site Survey. However, the Board shall procure that the party engaged to carry out the Site Survey provides a reliance letter to the Preferred Bidder in respect of the Site Survey.

2.17 Planning

An application for Planning Permission in Principle (PPiP) for the "erection of a Children's Hospital, including Department for Clinical Neurosciences (DCN) and ancillary facilities, helipad, associated enabling development including energy centre, Vacuum Insulated Evaporator (VIE), car parking, revised access and public transport arrangements, public realm works and landscaping, (car

parking, access and public transport arrangements in detail)" at Edinburgh Royal Infirmary, 51 Little France Crescent, Edinburgh, EH16 4SA was submitted to the CEC on the 29th July 2011.

The application (Reference 11/02454/PPP) was approved by CEC on 5th April 2012, subject to a number of conditions, and the conclusion of a Section 75 legal agreement.

The application was supported by a suite of information including a Design and Access Statement, which included the principles of design, sustainability, scale and massing. The application was also accompanied by an Environmental Statement in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations2011.

A subsequent stand alone permission (Reference 12/00479/FUL) was granted by CEC on 4 June 2012, for development of revised public access and revised public transport arrangements, associated car park remodelling, public realm works and landscaping. This followed the conclusion of a separate Section 75 legal agreement.

Various background papers relating to the application for PPiP and the application for Planning Permission, including Section 75 legal agreements are available within the Data Room.

The Preferred Bidder, once appointed, will be responsible for obtaining approval of the detailed scheme, in compliance with the conditions of the PPiP. This will require approval of matters specified in conditions. This will be required prior to Financial Close. The Board expects Bidders to have satisfied themselves before submitting their Solutions that their proposals will secure detailed planning consent.

2.17.1 Archaeology – Watching Brief

Bidders are advised that following negotiations with City of Edinburgh Council, a Written Scheme of Investigation for the archaeological watching brief has now been drafted (Condition 10 of the granted Planning in Principal 11/02454/PPP dated 5th April refers)

The Board has obtained prior agreement to the Written Scheme of Investigation from the City of Edinburgh Council Archaeology Service and formal written confirmation is awaited from the Principal Planner.

AOC Archaeology Group will be employed by the Board to undertake this service.

2.18 Artwork

The integration of art into the architecture and landscape to enhance the hospital environment is an essential requirement of the design. The Board welcomes innovative proposals for interactive art and wayfinding throughout the Facilities. Project Co will appoint artists to work with the Board on developing an arts strategy for the Project. Project Co shall carefully consider the arts strategy for the Board, including artworks and artefacts from the existing buildings that have been identified for transfer, and outputs from the 2010-2014 charitably funded Artists in Residence Programme within the RHSC and CAMHS.

The Board will be responsible for approving the whole art content in the Project and Project Co shall engage the Board fully in this process before any art work is commissioned.

2.19 Family Hotel

The Family Hotel is to provide “home away from home” accommodation for the families of children receiving inpatient care in hospital. This accommodation is free of charge to families at the point of

delivery, and aims to provide a supportive environment, and enable the whole family to be able to spend time together and close to their sick child.

It will provide overnight accommodation for families as well as facilities for parents whose children are resident on the wards, as outlined in the Specific Clinical Requirements section K2 (Family Hotel) of Sub Section D (Specific Clinical Requirements).

2.20 Achieving Excellence Design Evaluation Toolkit (AEDET)

Project Co will be required to provide design information for an AEDET assessment within one month of appointment as Preferred Bidder. The AEDET assessment will be facilitated by the Board with the assistance of Project Co, and carried out by key project stakeholders. The outcome of the process will assist Project Co to develop their proposals. Bidders are, however, reminded that their proposals shall ultimately be evaluated by the Board in accordance with the design deliverables and requirements laid out in the Invitation to Submit Final Tender.

A final AEDET review will be carried out on the design following the completion of construction and handover of the building to the Board.

3 COMMERCIAL OVERVIEW

3.1 Introduction

This section provides an overview of the commercial aspects of the Project.

3.2 NPD Structure

The Project will be delivered using the Scottish Government's NPD Model. The NPD Model was developed and introduced as an alternative to, and has since superseded, the traditional private finance initiative or "PFI" model in Scotland. It has been used in the education (schools) and health sectors. The NPD Model is defined by three core principles:

- Enhanced stakeholder involvement in the management of projects;
- No dividend bearing equity; and
- Capped private sector returns.

Projects funded using NPD Model principles will pay a fixed return to the holders of the junior or risk-bearing debt of the Project Co. All other distributions to equity (i.e. the holders of the shares and junior debt of the Project Co) will be prohibited. Surpluses arising after satisfying all precedent lines in the cash cascade, subject to any agreed buffer, will be payable to the Board as a rebate against Annual Service Payments. In this way, returns to investors are capped at the level bid during the procurement process.

Although contractors and funders are expected to earn a normal market rate of return as in any other form of privately-finance PPP deal, the NPD Model seeks to eliminate uncapped equity returns associated with the traditional PFI model and limit these returns to a reasonable rate set in competition.

3.2.1 Key features of the NPD Model:

These key features include:

(a) **Corporate structure**: The Board will contract with a special purpose vehicle (referred to in the NPD Project Agreement as "**Project Co**") which will be majority owned and controlled by the private sector investors. The Board will own a "golden share" in the Project Co which gives it certain controls over the corporate, governance and management structures within the Project Co. Project Co's articles of association must incorporate the mandatory NPD articles, produced by the SFT, that enshrine the fundamental principles of the NPD Model;

(b) **Public Interest Director:** One of the Project Co's directors will be nominated by the SFT and will bring an independent voice to Project Co's board and shall ensure a greater degree of transparency and accountability to stakeholders (the "**Public Interest Director**");

(c) **Refinancing:** Under the NPD Model the Public Interest Director has the right to instigate a refinancing on the same basis as the Board may instigate a refinancing under SoPC4 guidance;

(d) **Capped Returns:** This shall ensure that a "normal" level of investment return is made by the private sector and that these returns are transparent;

(e) Surpluses: Surpluses generated by Project Co shall be reinvested in the public sector; and

(f) Transparency: The public interest shall be represented in the governance of the NPD structure, which increases transparency and accountability and facilitates a more pro-active and stable partnership between public and private sector parties.

SFT provided a suite of contractual documents, comprising a NPD Project Agreement and articles to be adopted for use in this Project, appropriately amended for project and NHS-specific issues. These documents formed the basis of commercial dialogue from March to December 2013.

Further information on the NPD Model is available from the SFT website: www.scottishfuturestrust.org.uk.

3.2.2 Benefits of NPD Model

The NPD Model retains the benefits of traditional PFI structures, such as:

(a) optimum risk allocation;
(b) whole-life costing;
(c) maximised design efficiencies;
(d) robust programming of lifecycle maintenance and facilities management;
(e) performance-based payments to the private sector;
(f) single point delivery system, reducing interface risk for the public sector client; and
(g) improved service provision.

Also produces additional benefits, as set out in paragraph 3.2.1 above.

3.3 Overview of NPD Project Agreement

In terms of Volume 2 of the ISFT, this sets out the following documentation:

3.3.1 The Board's base NPD Project Agreement which reflects SFT's Standard Form NPD Project Agreement, as amended to reflect additional project specific amendments which have been agreed by SFT. In terms of these project specific amendments, please refer to paragraph 3.6 (Project Specific Changes) below;

3.3.2 A Final Tender (Bidder Specific) NPD Project Agreement which reflects all Bidder specific amendments agreed between the Board, SFT and each Bidder during the Dialogue Period. The Final Tender (Bidder Specific) NPD Project Agreement and its schedules shall regulate the relationship between the Board and Project Co.

3.4 General Approach in relation to NPD Project Agreement

The Preferred Bidder will be expected to enter into the Final Tender (Bidder Specific) NPD Project Agreement with the Board in the form set out in Volume 2 of the ISFT.

Only matters in relation to fine tuning and clarification of the Final Tender (Bidder Specific) NPD Project Agreement shall be addressed once the Dialogue Period has closed. Other than fine tuning and clarification issues, any issues not raised during the Dialogue Period will not be considered by

the Board if they involve changes to the basic features of the Final Tender Submission or the Project that are likely to distort competition or have a discriminatory effect.

The Board will also require the Direct Agreements to be substantially in the form set out in the Final Tender (Bidder Specific) NPD Project Agreement

To the extent that Bidders, their potential Funders, diligence teams and/or Sub-contractors had concerns about the terms of the Final Tender (Bidder Specific) NPD Project Agreement or any of the other key project documents including the Ancillary Agreements, these should have been raised with the Board during the Dialogue Period.

3.5 Derogation Procedure

The Board has raised all Bidder specific derogations with SFT during the Dialogue Period and has provided feedback to Bidders during the Dialogue Period as to whether such derogations have been either accepted or rejected by SFT.

3.6 Project Specific Changes to NPD Project Agreement

3.6.1 A number of project/sector specific amendments were agreed with SFT and were set out in the Board's base NPD Project Agreement for the ITPD.

The key project specific amendments included for the ITPD were:

a) **Lifecycle** Additional lifecycle drafting has been added at Clause 23A (Lifecycle Replacement) of the NPD Project Agreement to provide the Board with greater visibility in terms of lifecycle replacement.

b) **TUPE** The Board does not envisage that the Transfer of Undertaking (Protection of Employment) Regulations 2006 (TUPE) will apply to the Project or to any current Board staff. SFT's alternative drafting set out in Form 2 of Appendix 2 of the User Guide has therefore been added at Clause 25 (No Employee Transfer) of the NPD Project Agreement. In addition, Clause 26 (Pensions) of the NPD Project Agreement has been deleted.

c) **Board's right to stop Project Operations** In terms of Clause 13A, a new clause has been added permitting the Board to instruct Project Co to stop performing the Project Operations in the event of a (i) Stop Incident; (ii) potential impact upon Clinical Services, and/or (iii) the occurrence of a Major Incident. In terms of (ii) and (iii) a Compensation Event shall be available to Project Co if the Board instructs stopping the Project Operations on one of these grounds. In terms of (i), the consequences of this Board instruction shall be treated in a similar way to Clause 13 in relation to opening up of the Works.

d) **Indemnities** Additional limbs of the indemnity have been added in relation to breach of the Interface Proposals and/or breach of Appendix A of the Board's Construction Requirements and a breach of certain Reserved Rights. These are project specific requirements of the Board and primarily relate to Site issues which may have a wider impact upon the operation of the Campus Site.

e) **Insurance** The Board has undertaken a review of the insurable and uninsurable risks that may emanate from the Project. The insurance provisions and minimum requirements have been set out in Clause 53 (Insurance) and Schedule Part 15 (Insurance Requirements) of the NPD Project. In addition, waiver of subrogation option has been added at Clause 53.6 (Subrogation and Vitiation) of the NPD Project Agreement. Bidders shall be required to price this option as part of its Draft Final Tender and Final Tender as indicated in Financial Proformas 1a and 4.

f) **Community Benefits** SFT's drafting set out in Form 5 (Community Benefits) of the User Guide has been added at Clause 73 (Community Benefits) of the NPD Project Agreement (see 2.10, Appendix I and section B6 of Appendix A(ii) for further detail on how the Board is taking social considerations/Community Benefits into account in this procurement.

g) **Interface**

(i) *Interface*: Appendix A of the Board's Construction Requirements sets out the specific interface issues between the Facilities and the Retained Estate. Appendix A of the Board's Construction Requirements also requires Bidders to prepare certain Interface Proposals to address these specific interface issues.

(ii) *Interface Proposals*: The Interface Proposals shall include Bidder's proposals relating to construction access, operational access, oversail strategy, access areas strategy, drainage and substation proposals, service strip and foul service strip proposals and connection to the Link Building proposals. These Interface Proposals shall form part of Bidders Submissions and shall also form part of both the Draft Final Tender and Final Tender. The requirements for the Interface Proposals are more fully described in Appendix A of the Board's Construction Requirements, but shall be subject to conditions set out in Schedule Part 5 (Land Matters) of the NPD Project Agreement. However, for ease of reference, a list of Interface Proposals has been set out in Appendix C (iv) (Interface Proposals) of Volume 1 of the ISFT.

(iii) Little France Campus Working Group: The Board has established a Little France Campus Working Group in which Project Co will be required participate in. The purpose of this group is to support all parties on the Campus Site in order that they can work in partnership to deliver their responsibilities under Health and Safety legislation and the Construction (Design and Management) Regulations 2007 to ensure the safety of patients, staff and visitors and the operation of services on the Campus Site.

h) **Payment Mechanism** The NPD Project Agreement schedule has been amended to reflect the acute healthcare nature of the accommodation and incorporates the use of sessions as opposed to days as an element of the deduction formula for unavailability, in addition to the application of a gearing mechanism to the derivation of

Service Unit values.

3.7 Articles of Association

Project Co will be a private company limited by shares with the Articles of Association contained in Volume 2 of the ISFT which sets out the mandatory NPD provisions including membership of Project Co, the rights of the members, voting rights and controls on how revenue is to be used.
As part of the Final Tender, Bidders are requested to populate paragraph 4.1.5 of the Articles of Association in order that the Board is made aware of the amount of any cash buffer within the Financial Model.

3.8 Financial Aspects of the Project

In this Section, the ISFT sets out the following:

(a) key financial aspects of the Project that the Board considers to be of fundamental importance; and

(b) financial assumptions to be made by Bidders.

3.8.1 Affordability

The Board has developed a shadow bid Financial Model that produces an Annual Service Payment as derived from technical cost inputs that reflect the project scope and a set of assumptions that reflects current economic factors and funding market conditions. This model has been used to ensure that the Project is affordable to the Board.

The Board will be responsible for meeting the proportion of the Annual Service Payment related to Hard Facilities Management (Hard FM) services and 50% of the lifecycle maintenance expenditure. The Scottish Government will meet the remaining proportion of the Annual Service Payment via revenue support.

The Board will be responsible for meeting other costs such as soft facilities management services, utility costs and rates.

Scottish Government support for a proportion of the Annual Service Payment continues to be capped in relation to the construction cost of the project, including all construction related costs, including design fees. It has been set at an uninflated amount of £137,757,000 (based on a Q3 2011 base date) plus an inflation allowance calculated by reference to the BCIS All-in Tender Price Index from the base date of Q3 2011 to the index forecast at the assumed construction mid-point of Q4 2015. The indices at 27 November 2013 are Q3 2011 220 and Q4 2015 255 giving a current inflation of allowance of £21,283,457 and a total construction cap of £159,040,567.

This figure is the final cap level, which from this point forward is fixed and will not be adjusted further. All figures are net of VAT.

The table below summarises the key drivers of the Board's affordability position. The Board's expectation is that Bidders will seek to deliver financial proposals that remain within these constraints. The Board reserves the right to set aside any proposals from Bidders which are unaffordable.

Element	Notes	Amount
Capital cost	Scottish Government cap	£159,040,567
Annual real life cycle maintenance	None	£27 / sq m
Annual real hard FM	None	£29 / sq m
Capitalised bid development costs (excluding design fees)	As a percentage of construction costs	3%

3.8.2 Funding Approach

The Board requires a Funding Competition to be undertaken once a Preferred Bidder has been appointed. EIB have now confirmed that they would, subject to satisfactory due diligence, be willing to provide funding for the Project up to a value of £98.81 million. Further, EIB have indicated that they are willing to enter into discussions with Bidders, to sign confidentiality agreements and provide letters of support should these be required. A letter confirming EIB's willingness to fund the Project is included in Appendix B.

The Board has a strong preference that EIB funding is used to support the Preferred Bidder's proposals given the value for money that it will offer. However, the use of EIB funding is not mandatory - Bidders may continue to explore funding solutions that do not incorporate EIB funding should these have the potential to offer better value for money.

A set of funding terms that Bidders should use in developing their Draft Final Tenders and Final Tenders is appended to this document at Appendix B (iv).The terms provided are based on a combination of commercial bank and EIB funding provided on a 50/50 basis.

Where a Bidder proposes to utilise an Equity Bridge Loan, the same terms should be assumed as for the senior debt, that is, the relevant assumptions as to the pricing of the Loan should be extracted from Appendix B (iv)

3.8.3 Security package

Bidders are required to incorporate a fully priced security package into their bids. This package should be compatible with the funding structure and terms provided by the Board, at this stage assumed to be a commercial bank and EIB funded approach. Details of the pricing or this package should be inserted into the table included at Appendix B (v)

Bidders will be required to take the full risk of the pricing of the security package relating to commercial bank and EIB debt. If Bidders have not adequately priced the security package, they must bear the cost of any enhancement required.

In discussion with SFT, the Board has identified the likely security package requirement associated with a capital market funding solution. Bidders should populate the table at Appendix B (v) in relation to the pricing of such a package. The prices provided would be used in the case of a capital market solution being adopted following the post Preferred Bidder Funding Competition.

For the avoidance of doubt, the Board would expect to receive the benefit of any cost reduction arising from lower security package sizing requirements and would bear the risk of the cost

implications of a capital market solution requiring higher security package sizing requirements than those included in the table. Bidders will be expected to bear the risk of any variation in the actual pricing of the security package.

3.8.4 Due Diligence

Bidders are required to demonstrate that they have carried out a full due diligence exercise over their submission which would be accepted by potential Funders. Bidders must submit copies of completed due diligence reports as part of Final Tender submission.

3.8.5 Surpluses

In developing the Project the Board has assumed no prescribed levels of Surpluses are required to be paid during the concession period. Bidders should assume that any and all Surpluses that are generated will be paid to the Board as a rebate against the Annual Service Payment. Bidders should follow the accounting and tax advice, in relation to surpluses, as detailed below.

Any Surpluses produced by a Bidder's financial model will be included in the evaluation of price by applying 7% nominal discount rate in calculating the NPV of such Surpluses. Bidders should note that this discount rate is higher than that which will be used to evaluate the Annual Service Payment (6.0875%). This approach reflects the Board's strong preference for a lower and certain Annual Service Payment as opposed to an equivalent and less certain Surplus.

Any Surpluses forecast in Bidders' Financial Models should reflect the level of cash buffer that has been bid (see below) and the full impact of the terms of the Senior Funding Agreements, as these will affect the likelihood and timing of Surplus Payments actually being made to the Board.

Bidders may retain a cash buffer (over and above Senior Funders' reserves and covenants) in their Financial Models in order to deal with unexpected events that arise during the Project. Surpluses are required to be paid out only to the extent that these exceed the cash buffer. The cash buffer should be set at a level that is no higher than two months' worth of the indexing element of the monthly Annual Service Payment. The cash buffer itself should index. Bidders are free to propose a lower level of cash buffer, as this will allow an earlier release of surpluses which will be evaluated more favourably through the NPV calculation described above.

Bidders' Financial Submissions should clearly identify Surpluses available for distribution to the Board. Such Surpluses should be defined as:

(a) any Surpluses bid and included in the Financial Model over the operational period, including the period post repayment of debt;

(b) positive cash balances forecast in the Financial Model at the Expiry Date; and

(c) any Debt Service Reserve Account (DSRA) or Maintenance Reserve Account (MRA) balance released on repayment of debt (if not used to retire debt).

Payments of Surpluses to the Board should be assumed to take place on the last day of the relevant accounting period applicable.

3.8.7 SFT Policy on Accounting and Tax Treatment of Surpluses

In terms of the treatment of surpluses, Bidders should adopt the new Non Profit Distributing rebate of Annual Service Payment model advocated by the Scottish Futures Trust, whereby additional costs are accrued throughout each year of the project in order to reduce trading profits each year, reflecting the fact that profits are not distributed. This is a significantly more tax efficient method than

the previous approach commonly used of returning surpluses to the public sector under the gift aid relief method.

The tax and accounting treatment of surpluses is an evolving technical area for accounting and tax experts, whose accounting advice (and hence tax treatment), as provided to Bidders for NPD projects, is advancing rapidly. There is a range of treatments that accounting experts consider could be used to model the rebate structure. Whilst maintaining the principle of moving to a rebate model and seeking tax efficient proposals, Bidders should determine their own specific accounting, and hence taxation, approach in their final submissions with reference to the Board's submission requirement F12. It is not possible or desirable for the Board to mandate an accounting and tax approach at this time.

Bidders are required to include all costs associated with delivering the proposed treatment, including but not limited to advisory costs incurred in seeking clearances if considered necessary by the Bidder. Bidders are also expected to have undertaken diligence on behalf of funders and submit a tender, taking into account the accounting and tax treatment of surpluses, that is acceptable to the funding market.

It is not considered likely that HMRC will provide a clearance for tax treatment adopted as this will be dependent on the accounting treatment and standards adopted by the SPV in discussion with its auditors. However, Bidders must make their own decisions as to whether or not to seek advance tax clearance from the HMRC for any proposed treatments in respect of surpluses.

If the Bidder is to apply to HMRC for a non-statutory clearance regarding any other tax treatment applied, the Board will require such clearance to be obtained before Financial Close.

3.8.8 Interest Rate Risk

The Scottish Government will take the risk of changes in the reference interest rate (e.g. either the underlying London Interbank Borrowing Rate (LIBOR) rate or UK Government Gilt rate) up to Financial Close.

3.8.9 Foreign Exchange Risk

The Board will not accept any foreign exchange risk. Such risks should be absorbed entirely by Bidders.

3.8.10 Third party income

The Board does not anticipate that any third party income will be available within the Project and none should be assumed within Financial Submissions.

3.8.11 Capital and charitable contributions

For the purposes of the Final Tender, Bidders should assume that the Board will not inject any capital contributions into the Project, nor will there be any charitable contributions. This position may be reviewed at Preferred Bidder stage.

3.8.12 Validity of Submission

Bidders are required to price their Submissions anticipating a Financial Close of 2 October 2014. Bidders are required to maintain underlying construction, operating, FM and Project Co's costs for a period of three months from the target Financial Close date with no adjustment for inflation, meaning that should Financial Close be reached prior to 2 January 2015, the bid price will not be adjusted for the effects of inflation.

Bidders are also obliged to use all reasonable endeavours to mitigate the impact of any cost increases post validity period.

Bidders must confirm that the following cost indexes will apply in the post validity period:

(a) Construction costs – BCIS All in TPI

(b) Facilities management, lifecycle and SPV costs – RPI

3.8.13 Indexation

The Annual Service Payment will be indexed on an annual basis. The Payment Mechanism contains the formula for applying the inflation adjustment.

The Authority does not expect that a Bidder's funding solution will require the use of RPI hedging instruments. Any relevant financial submission should clearly demonstrate the proportion of costs that are fixed and the proportion subject to inflation. Bidders should set a rate of Annual Service Payment indexation that creates a natural hedge position given their cost structure. Bidders are required to develop their proposals on the basis of the use this natural hedge and to provide inflation sensitivities that demonstrate this as set out in the Financial Proformas.

3.8.14 Pass Through Costs

The Board will retain price risk associated with the defined pass through costs, those being insurance, rates and utility costs, as set out in the NPD Project Agreement. However, Bidders should note that the Board will review such costs in each Bidder's solution and allow for these in the Equalisation Adjustment as part of the Price evaluation process.

3.9 Financial Model

3.9.1 Key assumptions

Bidders are requested to note the following assumptions within their Financial Models, in addition to those noted above:

(a) For the purposes of their Submission, Bidders are provided with a LIBOR swap rate assumption as part of the Term Sheets included in Appendix B.

(b) Indexation of the Annual Service Payment should be based on RPI and not RPIx. RPI should be assumed as 2.5%.

(c) The Financial Model should be prepared in accordance with UK GAAP or IFRS.

(d) The date of Financial Close should be assumed to be 2 October 2014.

(e) The Financial Model should cover an operational period of twenty-five (25) years plus the construction period, with each year end assumed to be 31 March.

(f) The discount rate to be used in calculating all NPV figures should be 3.5% real and 6.0875% nominal, with the exception of the discounting of surpluses, which should be discounted at 7% nominal.

(g) All costs in the Financial Model should assume a price base date as at Financial Close with a first indexation point of the 1 April subsequent to Financial Close.

(h) The Bidders NPV calculation should discount cash flows back to the base date as at Financial Close.

(i) The NPV should be based on values at the mid-point of each financial period.

(j) Bidders should assume corporation tax rates which have been included in the Finance Act 2012 and announcements in the 2012 Autumn Statement;

(k) Annual Service Payment payments should assume 100% performance.

(l) Surpluses are as defined in Section 3.8.5 of this document and should be treated as indicated.

(m) Public Interest Director fees are to be included in the financial submission of £15,000 per annum, subject to indexation, and clearly shown in a separate row in the Financial Model and proformas.

(n) Construction insurance costs are to be included within the Financial Model.

(o) Pass-through costs (operational insurance costs, utilities costs and rates) are to be excluded from the Financial Model but should be shown separately within the Bidder's Financial Submission in Proforma FP1a. In the case of energy costs, Bidders should use the input unit price assumptions provided in the Proforma to generate the pass through cost, based on the projected energy usage inherent in the Bidder's proposals. For Non-Domestic Rates, Bidders should populate the Proforma FP1a using the calculator at Proforma FP1b. All such pass-through costs will be evaluated as part of the Equalisation Adjustment.

For a summary of the potential Equalisation Adjustment relating to Appendices to Schedule Part 16 – Change Protocol, Bidders should refer to Appendix A (vi) (Change Protocol) of the Volume 1 of the ISFT.

(p) All assets will revert to the Board on expiry for nil consideration.

(q) Debtor Days relating to revenue in the model should be assumed to be zero.

(r) No capital contributions should be assumed unless otherwise informed.

3.9.2 Financial model Format

Bidders must submit financial projections for each year of the NPD Project Agreement in the form of a computer Financial Model, which will become the Financial Model as defined in the Draft NPD Project Agreement.

The Financial Model must adhere to the following requirements:

(a) The Financial Model must be prepared using Microsoft Excel (2003 or later)

(b) The Financial Model should be free of error, including circular references or hard-coded values in non-input areas

(c) The Financial Model should be transparent, with the logic of all calculations capable of being followed through the model, with no hidden macros or password protected areas

(d) Financial projections should be presented on a monthly basis during the construction period and on a semi annual basis during operations (for each period ending 30 September and 31 March)

(e) All values should be expressed in £ sterling and to £'000's

(f) The Financial Model should identify input capital expenditure and operating costs which should be referenced to costs in the Technical Cost Proformas as required under Appendix A (v) and Financial Proformas as required under Appendix B (ii)

(g) The Financial Model should incorporate all of the Financial Proformas provided at Appendix B (ii), linked to worksheets in the Bidder's Financial Model so that the Proforma contents update automatically and can be reconciled to worksheets in which model calculations are performed

(h) The Financial Model should be capable of running sensitivities in all the key areas of risk that funders are likely to focus on. As a minimum this should include the following:

(i) Delay to Financial Close;

(ii) Capital cost increases;

(iii) Construction programme delays;

(iv) Operational cost increases;

(v) Lifecycle cost increases;

(vi) Insurance cost increases;

(vii) Interest rate changes;

(viii) Inflation rate changes;

(ix) Corporation tax and VAT rate changes;

(x) Deductions relating to the Payment Mechanism.

It is assumed that the Financial Model will be independently verified by the Bidder/Senior Funder as part of the process leading to Financial Close. Bidders are required to accept the risk that the model audit may prove the Annual Service Payment to be incorrect, and that they may not pass any additional costs on to the Board.

The Board will require sight of the Financial Model auditor's opinion letter that Bidder will obtain prior to Financial Close. For the avoidance of doubt the Board does not require a duty of care from the model auditors.

The Financial Model must include a print option macro.

3.9.3 Model Databook

The Bidder is required to provide a databook and user guide supporting the Financial Model for any relevant Submission. The databook should include the following details as a minimum:

- Summary of the content of the Financial Model, on a sheet by sheet basis;
- A table of location of inputs to the Financial Model with the cell/sheet reference and source;
- Copies of source documents (e.g. construction cashflow);

- An explanation of the methodology used to generate the financial projections;
- A definition of how the financial ratios are calculated;
- Details of the mechanisms contained in the Financial Model and an explanation of how key tasks in the Financial Model are carried out;
- A statement of the accounting policies applied to the Financial Model and their compliance with the relevant accounting standards;
- A detailed statement of the assumptions used in relation to tax.

3.10 Insurance

3.10.1 The Board has undertaken a review of the insurable and uninsurable risks that may emanate from the Project. Insurance provisions and minimum requirements have been set out in the NPD Project Agreement (at Clause 53 (Insurance), Schedule Part 15 (Insurance Requirements)) and Schedule Part 25 (Insurance Proceeds Account Agreement) in accordance with NHS Board requirements relative to NPD Projects in Scotland.

3.10.2 Insurances required under the Project will be reviewed and may be revised by the Board in line with Board strategy towards treatment of insurable risks in the Project, Project technical solutions and commercial considerations. Any such revision will form part of the Equalisation Adjustment made in relation to insurance pass-through costs.

3.10.3 A waiver of subrogation option has been added at Clause 53.6 (Subrogation and Vitiation) of the NPD Project Agreement. Bidders are asked to identify separately the costs associated with this waiver in Part C (Waiver of subrogation for Consort and Consort Parties) of Appendix G (Insurance Response Matrix) of Volume 1 of the ISFT.

Insurance Response Requirements

3.10.4 For the purposes of demonstrating compliance with the Board's requirements, and to assist in evaluation, Bidders are required to provide completed versions of the insurance matrices set out in Part 1 (Insurance Cost Matrix) and Part 2 (Insurance Technical Matrix) of Appendix G (Insurance Response Matrix) of Volume1 of the ISFT, clearly identifying where:

(i) there will be full compliance with the Board's insurance requirements; and

(ii) the Bidder proposes alternative solutions to satisfy the Board's requirements and the rationale for these.

3.10.5 Bidders should ensure transparency in both the Financial Model and ISFT Submission. Bidders are required to provide detailed Required Insurances premium calculations and full details of associated Project insurance related costs in accordance with the format set out in Part 1 (Insurance Cost Matrix) of Appendix G (Insurance Response Matrix) of Volume 1 of the ISFT. Bidders are required to complete the Part 2 (Insurance Technical Matrix) of Appendix G (Insurance Response Matrix) of Volume 1 of the ISFT in a manner which is consistent with their mark-up of the NPD Project Agreement. Costs presented in the Matrices should reconcile to the insurance pass-through cost values entered into Financial Proforma PF1a.

4 FINAL TENDER SUBMISSION

4.1 Final Tender

4.1.1 A Final Tender must not contain proposals which:

a. Materially differ from proposals presented / submitted to the Board in respect of matters which the Bidder was required to present / submit to the Board during the Dialogue Period;
b. Include key information that has not been presented and specified by Bidders during the Dialogue Period; or
c. The Board has previously confirmed as not capable of meeting its requirements; and
d. Include changes to the Final Tender (Bidder Specific) NPD Project Agreement.

4.1.2 The Preferred Bidder shall only be permitted to fine tune and clarify aspects of its Final Tender in line with the requirements of procurement law.

4.2 Board Evaluation Team

4.2.1 The Core Evaluation Team consists of the following members, representing various Board interests in evaluation:

- Brian Currie (Project Director)
- Iain Graham (Commercial and Legal)
- Janice MacKenzie (Clinical and Service Users)
- Jackie Sansbury (Operations and Commissioning)

4.2.2 The evaluation of each criteria will be led by a member of the Core Evaluation Team and will include members of the NHS Lothian project team and advisers.

4.3 Submission requirements for the Final Tender

4.3.1 Each Bidder shall ensure that its Submissions are provided using UK English, with all values expressed in UK Sterling/GB Pounds, using formats as specified in Submission Requirements.

4.3.2 The Final Tender shall be submitted no later than noon on the date for the relevant submission set out in the programme at paragraph 1.7 or such other date as notified by the Board to the Bidders.

4.3.3 Submissions or requests received after specified dates and times shall not be accepted for consideration and shall be returned unopened to the sender unless there are extenuating circumstances beyond the control of the Bidder in which case on being satisfied that such extenuating circumstances existed, the Board may at their discretion accept such submission.

4.3.4 Bidders shall ensure that one (1) electronic copy of the Final Tender are delivered electronically via Conject in accordance with the filing structure set up in Conject.

4.3.5 The filing structure on Conject will require a separate document for each criteria and each requirement outlined in ISFT Volume 1 Appendices.

a) Quality evaluation submissions: *No commercial / financial information should be submitted via these folders*

- Technical submission part A – executive summary *(excluding the overview of the Final Tender from a financial perspective)*
- Technical submission part B – strategic and management: separate folders for each of 15 criteria with supporting appendices
- Technical submission part C – design and construction: separate folders for each of 30 criteria with supporting appendices – *excluding C29*
- Technical submission part D – facilities management: separate folders for each of 14 criteria and any supporting appendices – *excluding D13*
- Technical submission appendix 1.1 – design deliverables
- Technical submission appendix 1.2 – specifications
- Appendix C (iv) Interface Proposals

b) All commercial / financial information should be contained in the following folders;

- Executive Summary (including the overview of the Final Tender from a financial perspective, including a summary of capital costs, Annual Service Payment and funding structures)
- Technical submissions – costs criteria files for C29 & D13 and appendices
- Financial Submission
- Legal submission

4.3.6 The electronically submitted final tender will take precedence over the hard copy.

4.3.7 Final Tender submissions shall not be accepted by email or facsimile unless otherwise instructed by the Board.

4.3.8 Bidders shall ensure that two (2) hard copies of the Final Tender, with a further two (2) hard copies of the response to Appendix A (ii) – Technical Submission Requirements are delivered by receipted mail or by hand to:

RHSC and DCN Project Offices
NHS Lothian
56 Canaan Lane
Edinburgh
EH10 4SG

4.3.8 The packages shall be clearly marked for the attention of the Project Director, Re-provision of RHSC and DCN at Little France.

4.3.9 No package should bear any mark indicating the Bidder's identity. If more than one package is delivered, they all shall carry some random unifying code number and an indication of the number of packages in total (e.g. 1 of 2, 2 of 2).

4.3.10 Each Bidder shall obtain a signed receipt acknowledging delivery of the Submission.

4.3.11 Each Bidders' Final Tender shall be presented in three volumes – volume 1: Technical response; volume 2: Financial response; and volume 3: Legal response. The content required in each section is defined in the following appendices to Volume 1 of the ISFT:

(a) Appendix A (i) (Not Used);

(b) Appendix A (ii) (Technical Submission Requirements);

(c) Appendix A (iii) (Design Deliverables);

(d) Appendix A (iv) (Specifications);

(e) Appendix A (v) (Technical Cost Proformas);

(f) Appendix A (vi) (Change Protocol);

(g) Appendix B (i) (Financial Submission Requirements);

(h) Appendix C (ii) (Legal Submission Requirements and Evaluation); and

(i) Appendix G (Insurance Response Matrix).

4.3.12 Each hard copy volume of a Bidders' Final Tender shall be filed in a separate folder with its contents clearly marked on the outside with Bidder's name, volume number, folder number and copy number for example Volume 2, folder 1 of 3, copy 1.

4.3.13 Hard copy submissions should be bound in a way that responses to each Quality Evaluation Criterion (as set out in the ISFT) can be extracted separately.

4.3.14 Each folder shall contain an index list for that folder which shall be bound immediately inside the cover, including the page numbers of each folder.

4.3.16 Each page of each volume shall be numbered clearly and sequentially.

4.3.17 Submissions shall not include any loose pages.

4.3.18 Drawings shall be numbered and a drawing list shall be included as part of the index list under the appropriate heading.

4.3.19 Drawings shall not be larger than A0 size and shall be clearly referenced, folded and inserted into pockets within the appropriate volume.

4.3.20 Each Bidder shall nominate and mark one copy of the Final Tender as the master copy. The master copy of the Submission shall be used as the primary source of reference during the evaluation process.

4.3.21 Bidders shall provide Final Tender Submissions that contain all the elements required and necessary for the performance of the NPD Project Agreement on the basis of the Solution presented and specified by Bidders during the Dialogue Period and accepted by the Board and SFT under the derogations process.

4.3.22 Final Tenders must be completed under the headings, using the tables and information supplied by the Board, and shall follow the order and numbering contained in Appendices A, B and C of this Volume 1 of the ISFT.

4.3.23 Final Tenders that include key information that has not been presented and specified by Bidders during the Dialogue Period and/or the Board has previously confirmed is not capable of meeting the mandatory requirements will not be accepted by the Board.

4.3.24 Bidders should provide such information as is necessary to enable the Board to evaluate whether a Final Tender is capable of meeting the Board's requirements.

4.3.25 The Board are entitled to modify Appendices A, B and C, of Volume 1 of the ISFT, the Board's requirements set out in Volume 1 of the ISFT generally, and/or require Bidders to omit specific aspects of a Solution at their absolute discretion where not agreed by the Board during the Dialogue Period pursuant to the parameters set out in the NPD Project

Agreement, the Board's Construction Requirements and/or SFT under the derogations process subject to ensuring equality of treatment amongst all Bidders.

4.3.26 General information such as marketing and promotional information will not be accepted by the Board and all information provided by Bidders must be specific to the information that is requested.

4.3.27 Bidders are required to provide a Final Tender that are acceptable to all legal entities (including, where relevant, any Senior Funders and relevant subcontractors) that are involved in the development of a Solution and the preparation of Final Tenders.

4.3.28 Bidders shall note that the Board shall reserve its position on the acceptability or otherwise of the Final Tender.

4.4 Conject

4.4.1 The Project will continue to use Conject during the Final Tender process. Conject, is a web-based construction collaboration portal. Procedures utilising Conject shall include:

(a) Data room access;

(b) Dialogue queries and Dialogue Period bulletin responses;

(c) Submitting completed Final Tenders.

4.5 Communication Protocol

4.5.1 All information and communication flows between the Board and Bidders during the Final Tender Period will be via Conject. The process for information and communication flows between the Board and Bidders including queries, bulletins, and request for clarifications is set out in paragraph 4.6.

4.5.2 Information and communication flows between the Board and Bidders will be categorised as follows:

(a) Dialogue Period Query (Confidential/Not Confidential – see paragraph 4.6.1) prepared by a Bidder and communicated to the Board relating to an ISFT process query only;

(b) Dialogue Period Bulletin prepared by the Board and communicated to a Bidder (in response to an ISFT process query only);

(c) Request for clarification prepared by the Board and communicated to a Bidder in response to a Final Tender Submission.

4.5.3 Please refer to Appendix D of Volume 1 of the ISFT for template form to be used by Bidders when sending a Dialogue Period Query.

4.5.4 The Board is entitled to decline to respond to any other form of information and communication flow sent by a Bidder.

4.5.5 Bidders may communicate a Dialogue Period Query to the Board no later than four (4) Business Days after the issue of ISFT.

4.5.6 The Board will endeavour to provide a Dialogue Period Bulletin in response to a Dialogue Period Query by no later than four (4) Business Days before the date of submission of Final Tenders.

4.5.7 Receipt of information and communications flows between the Board and Bidders will be recorded in accordance with Conject User Manual.

4.5.8 Additionally, the Board reserve the right to issue additional information at any time during the Final Tender Period. The Board may exercise the option to postpone the return of the Final Tender in the event that additional information is issued which has a bearing on the Final Tender.

4.6 Commercially sensitive and confidential information

4.6.1 If a Bidder considers a communication or any part of its submission to be commercially sensitive and wishes it to be treated by the Board as confidential they should make it clear in the relevant section of the Dialogue Period Query template form and explain in concise terms what harm may result from its disclosure.

4.6.2 If the Board does not agree that a communication is commercially sensitive, the Bidder will be invited to withdraw this communication. In the event that this invitation is declined, the Board will distribute a response to all Bidders.

4.6.3 If the Board agrees that a communication is commercially sensitive it will be treated in the strictest confidence by the Board subject to an entitlement to share such communication with the relevant members of the Board's Project team including advisers and key stakeholders for the purposes of preparing a confidential response.

4.7 Building Information Modelling (BIM)

Building Information Modelling (BIM) is being increasingly used within the industry. The use of BIM is being encouraged by central government and the Board expect that Bidders will use BIM for the development and implementation of their proposals.

Bidders shall prepare a BIM execution plan for review by, and agreement with, the Board. The BIM execution plan must be prepared in accordance with BS1192 and shall be submitted as part of their Final Tender. Appendix J contains further details of the Board's BIM requirements for the Project.

5 TENDER EVALUATION AND CONTRACT AWARD CRITERIA

5.1 Introduction

5.1.1 This section outlines the approach to the evaluation methodology for the Final Tenders.

5.1.2 Contract award will be on the basis of the offer, contained in the Final Tender, which is the most economically advantageous as set out in paragraphs 5.6 (Quality Evaluation Criteria), 5.7 (Price Evaluation) and 5.8 (Combining Price and Quality Evaluation), also in accordance with Part 5 of the Regulations.

5.2 Overview of Evaluation Process

5.2.1 The Final Tender evaluation will comprise the following steps:

(a) Completeness and compliance check – as more fully set out in paragraph 5.3 (Compliance and Completeness);

(b) Compliance with the Stand Alone Requirements – as more fully set out in paragraph 5.4 (Compliance with Stand Alone Requirements);

(c) Evaluation of all of the Quality Evaluation Criteria on a pass/fail basis - as more fully set out in paragraph 5.6.2 (Quality Evaluation Criteria)

(d) Evaluation of those Quality Evaluation Criteria that are evaluated on a scored basis - as more fully set out in paragraphs 5.6.3 (Quality Evaluation Criteria) which will result in a mark out of 40 being awarded to each Bidder;

(e) Price Evaluation (including commercial aspects) – as more fully set out in paragraph 5.7 (Price Evaluation), which will result in a mark out of 60 being awarded to each Bidder; and

(f) Combination of Price Evaluation Mark and Quality Evaluation Mark, resulting in a mark out of 100 being awarded to each Bidder, as more fully set out in paragraph 5.8 (Combining Price and Quality Evaluation).

Should a Final Tender fail any of the steps set out in paragraphs 5.2.1 (a), (b), or (c) above then the Final Tender will be deemed to be non-compliant and no further evaluation will be carried out.

5.2.2 Bidders should note that Board's requirements as referred to in Table B and Table C of paragraph 5.6 (Quality Evaluation Criteria) means all requirements of the Board as set out in Volume 2 and Volume 3 of (and any requirements referred to within) this ISFT.

5.3 Compliance and Completeness

5.3.1 The Board will check each Final Tender for compliance and completeness to establish if it has been prepared and submitted in accordance with and meets the requirements set out in the ISFT.

5.3.2 The Board is entitled to disqualify a Bidder if a Final Tender is not prepared and submitted in accordance with the requirements set out in the ISFT. The Board's decision on this matter will be final.

5.3.3 The Board is entitled, but not obliged, to seek clarification from Bidders at any time in respect of incomplete and ambiguous information contained in a Final Tender.

5.3.4 In the event the Board receives incomplete or ambiguous information in a Final Tender or response to a request for clarification the Board is entitled to disqualify a Bidder and the Board's decision on this matter will be final.

5.3.5 The Board may request a Bidder to clarify a Final Tender received, but such clarification, specification and/or fine tuning shall not involve material changes to a Final Tender when such clarifications, specifications or fine tuning are likely to distort competition or have a discriminatory effect.

5.4 Compliance with Stand Alone Requirements

5.4.1 The Board will check each Final Tender for compliance with the Stand Alone Requirements as identified in paragraph 2.3 (Stand Alone Requirements). Non-compliance with the Stand Alone Requirements will result in the Final Tender being deemed to be non-compliant.

5.6 Quality Evaluation Criteria

5.6.1 The Quality Evaluation Criteria (QEC), the basis for evaluation and, where relevant, their weightings are included in Table A below. Bidder's should note that Appendix A (ii) (Technical Submission Requirements) of the Volume 1 of the ISFT sets out for Bidder's (under the column "Submission Requirement") a description of technical aspects which the Board require, or where indicated anticipate Bidders should provide in their Submissions. Please note, however, that the individual submission requirements (for example, the bulleted points) are not and should not be treated by Bidders as sub-evaluation criteria. Bidders are reminded that the QEC are as set out in Table A (duplicated in the first, second and third columns of Appendix A (ii) (Technical Submission Requirements) of the Volume 1 of the ISFT for ease of reference) and responses to each QEC will be evaluated only in accordance with this paragraph 5 and no other basis.

5.6.2 The Board are keen to ensure that the Bidder appointed Preferred Bidder is able to deliver the highest quality in respect of all of its requirements. Therefore in the first instance, all QEC will be evaluated on a pass/fail basis. Primarily the QEC will be evaluated in accordance with the pass/fail criteria set out in Table B of this paragraph 5.6.2 However, in some instances the Board's requirements for a QEC are not set out in Volume 2 and Volume 3 of the ISFT and as such Table B shall not apply. In those cases the QEC shall be evaluated by the Board based on the pass/fail criteria set out in the column headed "Pass / Fail Guidance" (where relevant) in Appendix A(ii) of the ISFT. Bidders were made aware, pursuant to submission of Draft Final Tenders, of specific areas in which their draft proposals submitted at that stage did not constitute a pass.

5.6.3 Following the pass/fail evaluation the Board will then carry out a detailed assessment of the remaining Final Tenders to evaluate some of the QEC based on a scored evaluation. The scored assessment shall only apply to those QEC flagged as "scored" in Table A of this paragraph 5.6. Each of these scored QEC shall be given a score of between 5 and 10 in accordance with the scoring system set out in Table C of this paragraph 5.6. The score for each QEC will then be multiplied by the QEC Weighting and divided by 10 to give a weighted

score. The weighted score for each QEC will be added to give a total score for Quality out of 40 (the **Quality Evaluation Mark**).

Table A – Evaluation Basis and Weightings for Quality Evaluation Criteria

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
A – Executive Summary			Not Scored	
B – Strategic and Management Approach (5%)				
	B1	Clarity, robustness and quality of understanding of policy framework and approach to addressing these.	Scored	0.16
	B2	Clarity, robustness and quality of approach to contribution to delivering the Board's 'vision' and associated performance management regime.	Scored	0.32
	B3	Clarity, robustness and quality of understanding of Project outcomes and approach to contribution of delivering these.	Scored	0.56
	B4	Clarity, robustness and quality of approach to partnership and collaborative working with the Board and its partners.	Scored	0.81
	B5	Clarity, robustness and quality of approach to staff development including recruitment, training, induction and HR issues.	Scored	0.32
	B6	Clarity, robustness and quality of approach to delivering community benefits.	Scored	0.32
	B7	Clarity, robustness and quality of approach to integration of design with facilities management considerations.	Scored	0.32
	B8	Clarity, robustness and quality of approach to consortia management arrangements including approach to sub contractors.	Scored	0.57
	B9	Quality of proposed personnel.	Scored	0.32
	B10	Clarity, robustness and quality of approach to continuity throughout the Project.	Scored	0.32
	B11	Acceptable organisational diagrams for each stage of	Pass/Fail	

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		Project.		
	B12	Clarity, robustness and quality of approach to health and safety.	Scored	0.81
	B13	Acceptable approach to environmental, quality and health and safety management systems.	Pass/Fail	
	B14	Clarity, robustness and quality of approach to management of design development including integration with the Board and its partners.	Scored	0.16
	B15	Acceptable programme from appointment as Preferred Bidder to Financial Close.	Pass/Fail	
C – Approach to Design & Construction (23%)				
	C1	Clarity, robustness and quality of approach to meeting the stakeholders requirements in their design.	Scored	2.64
	C2	Clarity, robustness and quality of approach to design quality.	Scored	1.85
	C3	Clarity, robustness and quality of architectural and landscape design.	Scored	2.64
	C4	Clarity, robustness and quality of approach to delivering innovation.	Scored	2.64
	C5	Clarity, robustness, and quality of approach to adaptability and flexibility.	Scored	2.64
	C6	Clarity, robustness and quality of way finding and signage proposals.	Scored	1.06
	C7	Clarity, robustness and quality of interior design proposals.	Scored	2.64
	C8	Clarity, robustness and quality of M&E engineering design proposals.	Scored	1.06
	C9	Clarity, robustness and quality of natural and artificial lighting proposals.	Scored	1.06
	C10	Clarity, robustness and quality of energy management proposals.	Scored	1.85
	C11	Clarity, robustness and quality of equipment proposals.	Scored	1.06

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
	C11A	Compliance with Minimum Level of Group 1 Equipment.	Pass/Fail	
	C12	Compliance With Mandatory Reference Design Requirements.	Pass/ Fail	
	C13	Acceptable approach to achieving planning permission.	Pass/ Fail	
	C14	Acceptable vertical and horizontal movement strategy.	Pass/ Fail	
	C15	Acceptable ICT strategy.	Pass/ Fail	
	C16	Acceptable fire planning strategy.	Pass/ Fail	
	C17	Acceptable structural design proposals.	Pass/ Fail	
	C18	Acceptable services, utilities and infrastructure proposals.	Pass/ Fail	
	C19	Acceptable approach to achieving required BREEAM rating.	Pass/ Fail	
	C20	Acceptable post Preferred Bidder stage design development proposals and design programme.	Pass/ Fail	
	C21	Compliance with Board's Construction Requirements.	Pass/ Fail	
	C22	Acceptable design life proposals.	Pass/ Fail	
	C23	Acceptable construction programme and approach to monitoring.	Pass/ Fail	
	C24	Clarity, robustness and quality of construction methodology.	Scored	1.85
	C25	Acceptable approach to commissioning and handover.	Pass/ Fail	
	C26	Acceptable approach to quality and environmental management systems.	Pass/ Fail	
	C27	Acceptable approach to health and safety management.	Pass/ Fail	
	C28	Acceptable approach to compliance with CDM regulations.	Pass/ Fail	
	C29	Robustness of technical costs.	Pass/ Fail	
	C30	Acceptable list of summary assumptions, clarifications and derogations.	Not Scored	
	C31	Acceptable Interface Proposals.	Pass / Fail	
D – Approach to Facilities Management (12%)				
	D1	Clarity, robustness and quality	Scored	2.50

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		of approach to management and administration of the Services and Contract.		
	D2	Acceptable approach to integration with Board policies and operation.	Pass/ Fail	
	D3	Acceptable approach to ensuring quality management.	Pass/ Fail	
	D4	Acceptable approach to ensuring environmental management.	Pass/ Fail	
	D5	Acceptable approach to ensuring health and safety management.	Pass/ Fail	
	D6	Acceptable approach to interfacing with the Board for undertaking works outside of access times.	Pass/ Fail	
	D7	Clarity, robustness and quality of approach to partnership and resources including liaison, resources and supply chain management.	Scored	2.50
	D8	Acceptable approach to business continuity planning.	Pass/ Fail	
	D9	Acceptable fire safety policies and procedures.	Pass/ Fail	
	D10	Clarity, robustness and quality of approach to performance and information management including; Helpdesk, programme maintenance lifecycle, performance monitoring, monitoring and records, regular reports and information requests, building services and statutory testing.	Scored	4.50
	D11	Acceptable approach to un-programmed maintenance.	Pass/ Fail	
	D12	Clarity, robustness and quality of approach to service elements including; utilities management and grounds maintenance services.	Scored	2.50
	D13	Robustness of technical costs.	Pass/ Fail	
	D14	Acceptable list of summary assumptions, clarifications and derogations.	Not Scored	
	D15	Acceptable approach to mobilisation of Facilities	Pass/ Fail	

SECTION	QUALITY EVALUATION CRITERIA REFERENCE	QUALITY EVALUATION CRITERIA	QUALITY EVALUATION BASIS	QUALITY EVALUATION CRITERIA WEIGHTING
		Management services.		

Table B – Pass / Fail Criteria for Quality Evaluation Criteria

	Pass / Fail Criteria
Pass	The Bidders approach: • demonstrates a satisfactory understanding of the Board's requirements; and • delivers a satisfactory level of compliance with the Board's requirements.
Fail	The Bidders approach: • fails to demonstrate a satisfactory understanding of the Board's requirements; or • fails to deliver a satisfactory level of compliance with the Board's requirements.

Table C – Scoring System for Quality Evaluation Criteria

Scoring Range 5 – 10	Categorisation	Description
5	Satisfactory	The Bidder's approach: • demonstrates a satisfactory understanding of all aspects of the Board's requirements; and/or • proposes a solution which performs satisfactorily in complying with the Board's requirements.
6-7	Good	The Bidder's approach: • demonstrates a satisfactory understanding of all aspects of the Board's requirements and a detailed and good understanding of some aspects of the Board's requirements; and/or • proposes a solution which performs well against the Board's requirements.

Scoring Range 5 – 10	Categorisation	Description
8-9	Very Good	The Bidder's approach: • demonstrates a detailed and very good understanding of all aspects of the Board's requirements; and/or • proposes a solution which, performs very well against the Board's requirements.
10	Excellent	The Bidder's approach: • demonstrates an exceptional understanding of all aspects of the Board's requirements; and/or • proposes a solution which performs very well in complying with the Board's requirements and excels in complying with some of the Board's requirements.

5.7 Price Evaluation

5.7.1 Economic Cost

The Economic Cost of the Submission will be determined by calculating the Net Present Value (NPV) of each Financial Submission over the period of the NPD Project Agreement using the following components:

(a) NPV of Annual Service Payment - The proposed total Annual Service Payment stream in the Bidder's Financial Model, taken from Financial Pro-forma 1 and verified against the Financial Model, prepared using the assumptions and specifications set out in paragraphs 3.8 and 3.9. The NPV will be calculated using the Treasury real discount rate of 3.5% (6.0875% nominal);

(b) NPV of Surpluses - The forecast level of surpluses in the Bidder's Financial Model, as presented in Financial Proforma 2 and verified against the Financial Model will be deducted from the NPV of the total Annual Service Payment. Due to the more uncertain nature of the surplus payments the NPV will be calculated using a real discount rate of 4.39% (7.0% nominal);

(c) Equalisation Adjustment - Any additional material related costs and revenues to be borne by the Board as a result of any Financial Submission, including the pass-through costs of energy and utilities, rates and insurance costs as set out in Financial Pro-forma 1. The impact of such costs will be estimated by the Board and expressed as an NPV of the adjustments made, discounted at a real rate of 3.5%. Where an Equalisation Adjustment (other than the pass-through costs) has been made, the nature of and rationale for the adjustment will be disclosed to the Bidder; and

(d) Quantifiable Bidder Amendments - The Economic Cost will include an amount that reflects the deemed value (whether positive or negative) of any (i) amendments, caveats or qualifications to the NPD Project Agreement or specification that affect the risk profile of the Project or (ii) elements of the Financial Submission, that have or, in the reasonable opinion of the Board may have, a significant and quantifiable financial impact on the

Board (a '**Quantifiable Bidder Amendment'**). For this purpose, the deemed value of the Quantifiable Bidder Amendment will be the estimated financial impact to the Board of the risk occurring multiplied by the estimated probability of that risk being realised. Such values will be converted to an NPV using the 3.5% real discount rate.

Where any such Quantifiable Bidder Amendments and/or Equalisation Adjustments are identified, these were discussed and the deemed value shared with each Bidder during Dialogue.

5.7.2 Price Evaluation Mark

The Economic Cost derived from the components described in paragraph 5.7.1 will be scored as shown in the table below, with the Bidder with the lowest Economic Cost scoring the maximum 60 (the **Price Evaluation Mark**).

Deviation from lowest Economic Cost	Price Evaluation Mark
</=0.25%	60
>0.25%, </=0.50%	59.75
>0.50%, </=0.75%	59.625
>0.75%, </= 1.00%	59.5
>1.00%, </= 1.50%	59.25
>1.50%, </=2%	59
>2%, </=3%	58.5
>3%, </=4%	58
>4%, </=5%	57.5
>5%, </=6%	56.5
>6%, </=7%	55.5
>7%, </=8%	54.5
>8%, </=9%	53.5
>9%, </=10%	52.5
>10%, </=11%	50.5
>11%, </=12%	48.5
>12%, </=13%	46.5
>13%, </=14%	44.5
> 14%, </= 15%	42.5

Deviation from lowest Economic Cost	Price Evaluation Mark
> 15%, </= 16%	40.5
> 16%, </= 17%	37.5
> 17%, </= 18%	34.5
> 18%, </= 19%	31.5
> 19%, </= 20%	28.5
> 20%, </= 21%	24.5
> 21%, </= 22%	20.5
> 22%, </= 23%	16.5
> 23%, </= 24%	12.5
> 24%, </= 25%	8.5
> 25%	0

5.7.3 Evaluation of Funding Approach

The Board will evaluate Bidders' submissions in relation to funding on a scored basis. The areas of the submission that will be evaluated for this purpose are, primarily, the responses to questions F1-F7. However, responses to questions F8-F17 will also be taken into account where these would have a bearing on the deliverability of funding. Such scoring would be applied as an adjustment to the Price Evaluation Mark only and would not form part of the Qualitative appraisal.

The scoring scheme to be applied is set out in the table below:

Adequacy of response	Overall deduction from Price Evaluation Mark
All required information is provided, with no omission or qualification, and provides strong evidence that the eventual funding package adopted will be deliverable	No deduction
Required information is largely provided, with answers present for all questions, with only minor and insignificant omission or qualification, and provides reasonable evidence that the eventual funding package adopted will be deliverable	Deduction of 1 Mark
Information provided contains significant omissions and qualifications, with only some evidence provided that the eventual funding package adopted will be deliverable	Deduction of 2 Marks
Information provided is insufficient and contains multiple significant omissions and qualifications, with several questions not answered	Deduction of 3 Marks

adequately, with little evidence that that the eventual funding package adopted will be deliverable	

By way of example, the lowest priced Final Tender would be awarded the maximum Price Evaluation Mark of 60, but should that Bidder's responses in relation to funding be inadequate, the Bidder may sustain a deduction that could reduce this Mark to 57.

Bidders were made aware, pursuant to submission of Draft Final Tenders, of how their Draft Final Tender submissions would be scored under the above mechanism". The purpose of adding this wording is to reduce risk of arguments that bidders were unaware of how this process would operate

5.8 Combining Price and Quality Evaluation

For each Bidder, the Price Evaluation Mark (out of 60) will be added to the mark for the Quality Evaluation Mark (out of 40) to give a total mark out of 100. The Final Tender with the highest combined mark will be deemed by the Board to be the most economically advantageous tender.

6 GENERAL PROCUREMENT RULES

6.1 Introduction

This section outlines the general procurement rules applying to the Project competition relevant to submission requirements and elsewhere within the ISFT.

6.2 Information provided to Bidders – Confidentiality and Crown Copyright

By receiving the ISFT, each Bidder agrees to keep confidential the ISFT and all of the Information Provided.

Bidders shall not reproduce the ISFT in any form (including photocopying or storing by electronic means) or any other Information Provided for any purpose other than that specifically necessary to submit a Final Tender without the specific written permission of the Board.

The ISFT and Information Provided may be made available to a Bidder's members, employees and professional advisers directly involved in the appraisal of such information (who must be made aware of the obligation of confidentiality) but shall not, either in whole or in part, be copied, reproduced, distributed or otherwise made available to any other party in any circumstances without the prior written consent of the Board, nor may it be used for any other purposes than that for which it is intended.

The ISFT (including any copies and or any supplemental or referenced documents) and any Information Provided is and shall always remain the property of the Board who is entitled to demand their return and/or destruction at any time.

6.3 Information provided to Bidders - Warnings / Disclaimers

While the Information Provided has been prepared in good faith, it does not purport to be comprehensive nor to have been verified by the Board or any of their advisers. Neither the Board nor any of their agents or advisers accept any liability or responsibility for the accuracy, adequacy or completeness of any opinions, commentary, information and documentation contained in the ISFT or of any other opinions, commentary, information and documentation made available during the Tender Period or in respect of any Final Tender. No representation or warranty, express or implied, is or will be given by the Board or any of their agents or advisers with respect to such opinions, commentary, information and documentation. Any liability therefore is hereby expressly disclaimed.

It is not warranted that the Information Provided shall identify or provide Bidders with Solutions for the attainment of the Board's requirements. It is the responsibility of each Bidder to develop their proposals to ensure that they satisfy the Board's requirements.

Bidders must obtain for themselves at their own responsibility and expense all information necessary for the preparation of their Final Tender.

Bidders must complete and provide all information in accordance with the conditions and requirements of the ISFT.

6.4 Restrictions on the Use of the Invitation to Submit Final Tender

The ISFT and subsequent Information provided should not be considered as an investment recommendation made by the Board or any of its advisers or agents to any of the Bidders. Each person to whom the ISFT is issued should make its own independent assessment of the Project

competition and all matters relevant to that competition and to the Project after making such investigation and taking such professional advice as it deems necessary.

Nothing in the ISFT is, or should be, relied upon as a promise or representation as to the Board's ultimate decision in relation to the Project competition and/or the award of a public contract.

6.5 The Board's Right to Terminate

Bidders' attention is drawn to the fact that, by issuing the ISFT, the Board is in no way committed to accepting any Final Tender or identifying a Preferred Bidder.

The Board reserves the right, in its absolute discretion, to terminate, cancel or abandon the Project competition at any time before the execution of the NPD Project Agreement without giving prior notice to Bidders. In the event that the Project competition is so terminated, the Board will have no liability whatsoever to a Bidder, their subcontractor(s), their funders, the advisers to the Bidder or adviser(s) to any subcontractor(s) or funders for any costs incurred in connection with the Project competition.

6.6 Board's right to vary the process

The Board reserves the right, at its discretion, and subject to compliance with procurement law requirements:

6.6.1 to change the basis of, terms of or the procedure for, the process, including the timing, form and substance of the procedure of the Project competition. Under no circumstances shall the Board incur any liability in respect thereof.

6.6.2 to issue supplementary documentation at any time during the Project competition in order to clarify any matter and/or amend any aspect of the Information Provided.

6.6.3 amend the Board's requirements, Mandatory Reference Design Requirements, NPD Project Agreement and/or any other aspect of the Board's procurement documentation.

Any changes shall be communicated to Bidders as quickly as possible.

6.7 Conduct and Conflicts of interest

The Board wishes to avoid or resolve any conflicts of interest or other matters which may compromise its legal obligations relevant to conducting an open, transparent, fair and non-discriminatory competitive procurement. A Bidder must, accordingly, ensure that its participation in the Project competition that may lead to the award of a contract does not in any way compromise the Board's performance of its obligations.

A Bidder must consider these matters carefully on an ongoing basis and ensure that its actions are not capable of compromising the Board's ability to meet its obligations.
If in doubt, a Bidder must declare a potential conflict of interest and inform the Board of the measures the Bidder intends to implement to avoid it occurring.

The Board and Bidders will seek to agree the measures that are necessary to avoid any conflicts of interest or potential conflicts of interest arising.

In the event that an agreement cannot be reached and the Board considers its obligations in relation to the procurement are compromised, the Board reserves the right to disqualify a Bidder from the Project competition. The Board's decision on this matter will be final.

Each Bidder shall ensure that all relevant entities involved in its participation in the Project competition, including, without limitation, consortia members, subcontractors and all relevant technical, financial and legal advisers, are aware of the provisions of this paragraph 6 and do not breach any of the provisions set-out herein

6.8 Canvassing and contacts

Except as provided in the ISFT, Bidders shall not approach staff of the Board or staff of the Board's advisers or contractors with a view to obtaining information or clarification in respect of any part of their Submission or solution or attempting to support or enhance their prospect of being identified as the Preferred Bidder. Any such approach or attempted approach by a Bidder may lead to the Bidder's disqualification.

Bidders are required to complete a Certificate of Non-Collusion and Non-Canvassing as part of their Final Tender.

6.9 Disqualification/Rejection of Bidders

In accepting delivery of the ISFT, each Bidder agrees to abide by the provisions and conditions that it contains, or which are set out in any subsequent Information Provided in relation to the Project competition, in all and any dealings or communications, during the Final Tender or otherwise in relation to the Project.

The acceptance of the ISFT by a Bidder will imply acceptance of its provisions by Bidders without qualification. Any attempt to qualify provisions, either expressly or impliedly, may result in the Bidder being disqualified.

The Board reserves the right to reject or disqualify a Bidder where:

6.9.1 a Bidder's Submission is submitted late, completed incorrectly, incomplete or fails to include a Solution capable of meeting the Board's requirements; and/or

6.9.2 the Bidder or any person or entity involved with the Bidder's participation in the Project competition is guilty of serious misrepresentation in relation to any aspect of the Project competition; and/or

6.9.3 there is a change in identity, control, financial standing or other factor impacting on the selection and/or evaluation process affecting the Bidder including, where the Bidder is a consortium, changes relevant to Consortium membership and members , and such changes shall be addressed in accordance with paragraph 6.13; and/or

6.9.4 the Bidder or any person or entity involved with the Bidder's participation in the Project competition contravenes any of the terms of the ISFT or terms set out in any subsequent Information Provided, including within the Invitation to Submit Final Tenders; and/or

6.9.5 the Board becomes aware that information provided by the Bidder or any person or entity involved with the Bidder's participation in the Project competition is intentionally or unintentionally false, misleading or incorrect; and/or

6.9.6 the Bidder or any entity involved with the Bidder's participation in the Project competition prejudices the Project competition by failing to take steps to address a conflict of interest or

other matters which impact negatively on the Board's ability to meet its procurement law obligations.

6.10 Costs

All work undertaken and costs incurred by Bidders in relation to any stage of the Tender Period and any Final Tender, or otherwise in relation to the Project, shall be at each Bidder's own risk and expense.

6.11 Freedom of Information

FOISA and the Environmental Information (Scotland) Regulations provide significant and important rights to access information and the Board supports FOISA's and the Environmental Information (Scotland) Regulations' underpinning principles by encouraging behaviour which is open, transparent and increases public participation. Accordingly, all information submitted to the Board may be disclosed by the Board in response to a request under FOISA and the Environmental Information (Scotland) Regulations or in response to Legislation requiring the disclosure of information by the Board. The decisions of the Board in the interpretation thereof shall be final and conclusive in any dispute, difference or question arising in respect of disclosure. The Board may also decide to include certain information in the publication scheme which it maintains under FOISA and the Environmental Information (Scotland) Regulations.

Further, the Board may also disclose all information submitted to them to the Scottish or United Kingdom Parliament or any other department, office or agency of Her Majesty's Government in Scotland or the United Kingdom, and their servants or agents.

If a Bidder considers that any of the information to be provided is commercially sensitive, it shall be obliged to identify it and explain to the Board (in broad terms) what harm may result from its disclosure. Bidders should be aware that, even where it has indicated that information is commercially sensitive, the Board may be required to disclose it and as such reserves the right to do so. Bidders should be further aware that the basis of the preferred bid will be included within the Full Business Case that the Board requires to complete. The Full Business Case will be made a public document.

Bidders should also note that the receipt of any material marked 'confidential' or equivalent by the Board should not be taken to mean that the Board accept any duty of confidence by virtue of that marking.

The Board may publish, on the Scottish Government and the Board's websites, the names and contact details of Bidders who have been issued with the ISFT.

6.12 Collusion

Any collusion between Bidders, their subcontractors or advisers will lead to the exclusion of the Bidders involved at the discretion of the Board.

Bidders shall be required to sign the Certificate of Non-Collusion and Non-Canvassing and to submit it no later than five (5) Business Days from the date of issue of the ISFT.

6.13 Changes in Bidder Circumstances

Each Bidder is required immediately to bring to the Board's notice any change in the identity of any organisation, consortium member or entity identified and evaluated in its pre-qualification submission since the submission of the Pre-Qualification Questionnaire and such change may only be made with the prior written agreement of the Board. Any additional information provided by a Bidder pursuant to the requirements of this section will be evaluated in accordance with the selection criteria in respect of such information in the Pre-Qualification Questionnaire. The Board has selected the Bidders on the basis of information provided by them concerning their eligibility, the economic and financial standing, technical and professional ability. The Board reserve the right to withdraw the selection of a Bidder at any time if the Board concludes that a Bidder is ineligible, no longer satisfies the minimum standards of economic and financial standing or technical and professional ability or is otherwise required by its procurement law obligations to reject the Bidder.

6.14 Non Compliance

Any Submission provided without the Bidder complying with the requirements of the ISFT may be rejected by the Board.

6.15 Publicity and Media Statements

Bidders shall obtain the Board's specific written permission (on form, content and purpose) before any statements or other disclosures regarding their involvement in the procurement of the Project are made public (media, seminars, websites, conferences, promotional material etc).

6.16 Variant Bids

In accordance with the OJEU Notice, Bidders should be aware that no variant bids will be permitted.

Appendix A (i) – Not used

Appendix A (ii) – Technical Submission Requirements

The technical Submissions submitted by the Bidders shall be structured following the same numbering reference system as set out in the "Quality Evaluation Criteria and Reference" and the "Submission Requirement Reference" in the table below.

In relation to the technical Submission Requirements for C (Approach to Design and Construction), subject to the requirements of paragraph 4 of Volume 1 of the ITPD and to encourage and facilitate innovative technical solutions, Bidders are permitted to submit its responses in a format (e.g. written responses, drawings or other representations) which they consider most appropriate to best demonstrate an understanding of the Board's requirements and/or a solution which complies with the Board's requirements. However, as a minimum, the Board would require all design deliverables set out in AP1.1 and AP1.2 to be submitted as part of the Submission Requirements for C (Approach to Design and Construction) and each response (C1 to C31) should refer to which Design Deliverables within AP1.1 and AP1.2 support the response.

The technical submission requirements submitted by the Bidders in response to section C (Approach to Design and Construction) below will ultimately form part of Project Co's Proposals in accordance with the NPD Project Agreement.

The technical submission requirements submitted by the Bidders in response to section D (Approach to Facilities Management) below will ultimately form part of the Method Statements in accordance with the NPD Project Agreement.

The technical submission requirements submitted by the Bidders in response to section B (Strategic and Management Approach) below will form part of Project Co's Proposals and/or the Method Statements in accordance with the NPD Project Agreement.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
A. Executive Summary A1	Not Scored	n/a	A1.1	Bidders must submit an Executive Summary of their Final Tender. The Executive Summary shall include: • An overview of the Bidders' approach to the Project; • The Bidders' understanding of the Project, key Board requirements and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the main factors, as determined by the Bidder that will influence the deliverability of the Project. In addition a concise statement describing the Bidders' approach to address the factors identified; • An indication of what the Bidders bring to the Project by way of skills or innovative solutions to meet their own criteria for success; • An overview of the Bidders' accepted list of key assumptions or clarifications • An overview of the Bidders' proposed design solution and integration with the Site; and • An overview of the Final Tender from a financial perspective, including a summary of capital costs, the Unitary Payment and funding structures.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B. Strategic and Management Approach					
B1. Clarity, robustness and quality of understanding of policy framework and approach to addressing these.	Scored	0.16	B1.1	Bidders must submit proposals setting out their understanding of the relevant local and national health policies and describe how these strategic issues have been included within the Bidders' Final Tender submission, in particular with respect to the delivery of solutions specific to this Project.	To Pass, Bidders will be required to demonstrate a clear understanding of national health policies specific to the Project.
B2. Clarity, robustness and quality of approach to contribution to delivering the Board's 'vision' and associated performance management regime	Scored	0.32	B2.1	Bidders must submit proposals setting out how their proposals will enhance and contribute to the Board's vision. Bidders should explain their role in delivering the Board's vision, and include proposed performance management mechanisms for demonstrating Project Co's contribution to the achievement of this vision.	To Pass, Bidders will be required to demonstrate that they will contribute to the Board's vision.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B3. Clarity, robustness and quality of understanding of Project outcomes and approach to contribution of delivering these	Scored	0.57	B3.1	Bidders must submit proposal setting out their understanding of the Project outcomes (as outlined in the Boards benefits realisation plan) and how their proposals will contribute to the delivery of outcomes/benefits with specific details of how the Bidder has already addressed these in their Final Tender submission, or how they will be addressed after Final Tender submission. Bidders must also outline what they offer by way of skills and/or innovative solutions to deliver these outcomes/benefits.	To Pass, Bidders will be required to demonstrate that they understand the Project outcomes and will contribute to these.
B4. Clarity, robustness and quality, of approach to partnership and collaborative working with the Board and its partners	Scored	0.81	B4.1	Bidders must submit a method statement outlining their approach to collaborative working and developing and maintaining a successful long term partnership with the Board and its partners, (i) in the period from Preferred Bidder appointment to Financial Close; (ii) throughout the construction period; and (iii) operational period of the contract confirming in their proposals: • What they believe to be the factors critical to achieving a successful relationship (both short term and long term);	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to collaborative working.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Their understanding of the key interface issues and how they intend to manage these and integrate with the existing relationships; • How they will develop and maintain a full understanding of the Boards' objectives including matters identified during Dialogue; • How their objectives can reflect and adapt to the Board's goals as they evolve over time; and • The manner in which they will conduct themselves that accords with the culture of the Board, local communities and other key stakeholders to the Project.	
B5. Clarity, robustness and quality of approach to staff development including recruitment, training, induction and HR issues	Scored	0.32	B5.1	**Recruitment** The Bidders must submit proposals setting out details of the following: • Approach to recruitment and vetting of staff, including as appropriate relevant security clearances (e.g. Disclosure Scotland, Protection of Vulnerable Groups Scheme etc); • Procedures for working in areas with children or vulnerable persons; and	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to staff development.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Details of its employment policy and evidence that employees and prospective employees are treated fairly irrespective of race, gender, religion, disability or background.	
			B5.2	**Human Resources Issues** The Bidders must submit proposals setting out: • Details of their Occupational Health approach for staff having come into contact with high risk person or areas.	
			B5.3	**Training and Induction** The Bidders must submit proposals setting out: • Details of any achievement in relation to the Investors In People initiative (or equivalent); • Details of the Bidder's employee development and appraisal system; • Details of its own and its supply chain's training policy and procedures, including an indication of the training to be offered to the on-site staff specific to this Contract and a statement of the percentage of their annual turnover which is spent on staff training;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Details of induction programme and ongoing training for staff, specifically working with HV systems and Legionella control; and • Details of induction programme for sub-contractors.	
B6. Clarity, robustness and quality of approach to delivering community benefits	Scored	0.32	B6.1	Bidders must submit their proposals to deliver community benefits as part of the Project in accordance with Clause 73 (Community Benefits) of the NPD Project Agreement and Appendix I of Volume 1 of the ITPD. These should include specific proposals covering economic, environmental and social benefits related to the Project during both the construction and operational stages of the Project.	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to community benefits (including complying with the minimum targeted recruitment numbers set out in Appendix I Section 2.1).
B7. Clarity, robustness and quality of approach to integration of design with facilities management considerations	Scored	0.32	B7.1	Bidders must submit proposals demonstrating how a consistent and a coordinated approach will be developed and assured between the building design and FM solutions. Bidders shall take account of the hard FM site interface issues and integration with the soft FM which will be provided by the Board. Bidders responses shall include specific	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to integration of design with facilities management.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				proposals on: • How their design development process will consider and incorporate the FM aspects at each stage of the process from pre financial close through to construction; and • The method by which design coordination issues will be managed and FM interface issues raised with the Board and its partners.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B8. Clarity, robustness and quality of approach to consortia management arrangements including approach to sub contractors	Scored	0.57	B8.1	Bidders must submit proposals setting out details of how its consortium will be managed, setting out the key roles and their responsibilities including technical roles within their consortium they have identified as key to the Project during contract finalisation, construction and operational stages and Project Co's role in leading the project management. This shall include team leaders for all principal disciplines, both before and after financial close, and may include but not be limited to the following: • Project and programme management; • Risk management; • Design; • Works; • Services; and • Quality, safety and environmental management including HAISCRIBE and BREEAM.	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to consortia management proposals.
			B8.2	Where any element of the Works and/or Services are to be provided by subcontractors other than the Contractor or Service Provider(s) Bidders must submit details of: • The selection process undertaken for such sub contractors that are confirmed at the time of submitting Final Tender, and/or the selection process (including timescales) that will be undertaken for	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				those subcontractors yet to be confirmed; and • The manner in which performance of the sub contractors will be secured and integrated within the overall performance requirements of the Board's output specifications.	
B9. Quality of proposed personnel	Scored	0.32	B9.1	Bidders must submit a summary curriculum vitae (maximum of two pages per person) of the personnel proposed for the roles identified in B8 above which shall include (as a minimum) details of key experience, education and professional status.	To Pass, Bidders will be required to demonstrate that their key personnel have satisfactory levels of experience.
B10. Clarity, robustness and quality of approach to continuity throughout the Project	Scored	0.32	B10.1	Bidders must submit proposals setting out their continuity plan for all stages of the project. The key matters to be addressed will include: • how any changes in personnel between their pre and post financial close teams will be managed and communicated; • describe how as part of the design development process they view Project Co's role in ensuring design continuity and knowledge transfer. This will include how they will achieve design team continuity throughout the whole design development, construction and operational phases considering the consortium team and design organisations, and the key personnel	To Pass, Bidders will be required to demonstrate that there will be continuity throughout the Project.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				working within each of those organisations. The continuity plan shall address proposals for the role of design staff on-site during the development and the Works phase; and • the submission should particularly address the issue of consistency of personnel throughout the project and the need for procedures to deal with knowledge transfer to ensure smooth transition when required.	
B11. Acceptable organisational diagrams for each stage of Project	Pass/Fail	n/a	B11.1	Bidders must submit organisation diagrams for the consortium including the lines of communication with the Board and other key stakeholders for each of the phases of the project including: • contract finalisation (appointment of Preferred Bidder to Financial Close); • construction and commissioning period; and • operational term.	To Pass, Bidders will be required to demonstrate a clear organisational structure for each stage of the Project.
B12. Clarity, robustness and quality of approach to health and safety	Scored	0.81	B12.1	Bidders must submit a detailed health and safety strategy which the Bidder proposes to adopt to comply with in fulfilling their health and safety obligations throughout the project, covering the following phases: • contract finalisation (appointment of	To Pass, Bidders will be required to demonstrate they will adopt a robust approach to health and safety.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Preferred Bidder to Financial Close); • construction and commissioning period; and • operational term. In particular, the proposals should address Project Co's leadership role and key project roles throughout and particularly in the delivery and management of the Project on a 24/7 operational site, addressing key issues such as: • The Boards requirements; • Operational continuity requirements of the RIE Facilities; • Obligations to connect to and maintain critical service connections; • Traffic management – construction and operational access/ egress; • Compliance with HaiScribe requirements; • Construction activity; • Linking to a live operational major health facility; • Proximity to live operational general hospital facility (24/7) and medical school; • Security issues; • Access and maintenance requirements of the project; • Pollution control; • Noise, dust, water egress, and vibration issues and the like; and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				• Details of business continuity plans.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B13. Acceptable approach to environmental, quality and health and safety management systems	Pass/Fail	n/a	B13.1	Bidders must submit proposals setting out how Project Co intends to set up, manage, maintain, work towards and gain accreditation of its environmental, health and safety and quality management systems including specific proposals on: • The systems to be developed and implemented; • How these systems will be put in place; • The process for the development of the systems; • Interim measures while the systems are being developed; and • Timescales for accreditation.	To Pass, Bidders will be required to demonstrate that they will adopt an acceptable approach to management systems.
			B13.2	As a minimum Bidders must submit proposals setting out the following aspects of their environmental, health and safety and quality management systems: • Proposed document management systems; • Verification procedures for design work; • Detailed change control procedures for each stage of the Project; • Procedures and a programme for carrying out Project reviews; and • Description of the procedures to co-ordinate and manage the design process including the interface between design teams and continuity of design team members (as set out in B10). In addition,	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				a statement of how and when design changes will be reviewed and commented on by Project Co/ Service Provider.	
			B13.3	Bidders must submit propoals demonstrating that they operate an accredited Health and Safety management system complying with the OHAS 18001 standard.	
B14. Clarity, robustness and quality of approach to management of design development including integration with the Board and its partners	Scored	0.16	B14.1	Bidders must submit proposals setting out : • Their approach to managing the Project's design development, with particular emphasis on development post Final Tender, including proposals for interface with specific sub-groups harmonising with the current Board Project structure. The submission should include a description of the procedures to co-ordinate and manage the design process and to interface with key stakeholders, including document management, verification of design, change control during design development and design reviews; and • The management and review structures and procedures that will be put in place by the Bidder to manage potential conflicts, delays, changes in the Board's goals and other issues at each key design stage of the Project.	To Pass, Bidders will be required to demonstrate that they will adopt a robust approach to management of design development including a commitment to working with the Board.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
B15. Acceptable programme from appointment as Preferred Bidder to Financial Close	Pass/Fail	n/a	B15.1	Bidders must submit a week by week programme covering the contract finalisation period from appointment of Preferred Bidder until Financial Close with a detailed breakdown of the key tasks to be completed by the end of each week with the critical path and key milestones shown. Bidders shall supplement the programme with commentary on, as a minimum, the following matters: • Mechanisms that will be adopted to ensure that the critical path for the technical, legal and commercial activities will remain on programme, and therefore that the overall Project programme is maintained; • Confirmation of key inputs, timescales and required by dates for the Board to review/approve Bidder submissions during contract finalisation; • Confirmation that their overall programme to Financial Close, is achievable; and • Key risks to the Project proceeding on programme shall also be identified, with a brief commentary on how the Bidder proposes to mitigate each risk.	To Pass, Bidders will be required to submit a logical and deliverable programme.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C. Approach to Design & Construction					
C1. Clarity, robustness and quality of approach to meeting the stakeholders requirements in their design	Scored	2.64	C1.1	The Bidders must submit proposals setting out their approach to meeting the stakeholders requirements in their design. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Evidence that they are sensitive to the co-location of the RHSC and DCN and that they will take advantage of this arrangement to maximise their design; ii. Evidence that they are aware of the wide range of stakeholders associated with these departments and that they understand and will cater for all their requirements in their design; iii. Evidence that their bid will deliver a nurturing, engaged and safe community that supports the well being of all patients, carers, families, visitors and staff; iv. Evidence that their design will provide	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				a healing environment that will assist the Board in its core obligation to deliver clinical care to users of both the RHSC and DCN; v. Evidence that their design will include particular consideration of the proposed external spaces, therapy gardens and landscaping, communal patient areas for example quiet and television rooms, public areas; vi. Evidence that their design will adequately address security requirements; vii. Evidence that their design will fully incorporate infection control requirements and HAI Scribe; and viii. In particular for the RHSC and CAMHS, we would expect the Bidders to demonstrate how the design will be developed to achieve: i. Facilities that are a beautiful place with children and young people at the centre of a nurturing, engaged and safe community; ii. Facilities that are reassuring, relaxing, convenient and safe with the needs of children and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				young people and those with disabilities expressly addressed; and iii. Facilities that provide an appropriate balance of internal and external play `areas. In relation to the DCN, we would anticipate Bidders shall demonstrate how similar qualities to the above (ix (i – iii) but also in addition, how the design will be developed to achieve a nurturing, quiet and relaxing environment for its patients.	
C2. Clarity, robustness and quality of approach to design quality	Scored	1.85	C2.1	Bidders must submit proposals setting out their approach to achieving design quality. This must be provided as set out in C2.1 – C2.3 below: Bidders must submit proposals setting out how the design will be developed to integrate the architectural, mechanical, electrical and civil and structural engineering aspects of the design to present a cohesive innovative design which meets all the Board's construction and stakeholders' requirements (including infection control and HAI Scribe	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				requirements). The submission shall utilise all Mandatory Reference Design Requirements to deliver a solution across all disciplines.	
			C2.2	Bidders must submit proposals setting out their design analysis of both the site and the Board's requirements as depicted in the Board's Construction Requirements. The review of the site shall identify, as a minimum, opportunities, constraints and access and planning issues.	
			C2.3	Bidders must submit proposals setting out a clear statement summarising what they understand to be the key strategic issues relating to the project and demonstrate how the design proposals have dealt with these specific project issues, and any impact their proposals will have on such matters.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C3. Clarity, robustness and quality of architectural and landscape design	Scored	2.64		Bidders must submit proposals setting out their approach to architecture and landscape design. This should be provided as set out in C3.1 – C3.3 below:	
			C3.1	Bidders must submit proposals setting out their approach to architecture design. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. How the design will deliver world class architectural design practice in delivering Facilities that support the Board's clinical needs and a design which provides a high level of creativity; ii. How the design will provide an ordered composition of building elements in a stimulating form that successfully combines good standards of space, height, form, scale and use of materials and colours / images with associated functional requirements and the surroundings; iii. How the design will address the interests of stakeholders, including (but not limited to) clinicians, patients (and their representatives, families	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				and carers), health commissioners, Local Government, and the local community; iv. How the design will deliver architectural quality and demonstrates how this will be provided; v. How the design will deliver the lines of sight and views from windows which are suitable for children and young people; vi. How the design will provide age and ability appropriate art and way finding design which is integrated into the design solution; vii. How the design will fully consider all aspects of safety in all areas and a description of how risks have been removed through design innovations; viii. How the design will fully address control of infection and HAI Scribe; and ix. How the design will minimise cleaning and maintenance of all elements of the Facilities by choice of materials, layout and orientation and shows how such activities can be carried out safety and without disruption to clinical activities.	
			C3.2	Bidders must submit proposals demonstrating how they will deliver high	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				quality architectural buildings, and high quality finishes and component parts. As well as the architectural drawings and supporting information, Bidders shall provide specific details in detailed specification format to include the following: i. Internal and external doors and door furniture, also showing proposed pattern of vision panels; ii. Washing and toilet facilities; iii. Reception desks and touchdown bases; iv. Communal patient areas, which include spaces such as playrooms, television rooms and quiet rooms v. External therapy gardens and external covered play and seating areas vi. Floor and wall coverings; vii. Natural and artificial lighting particularly in key public areas, artwork and key clinical areas such as theatres; viii. Samples of worktops and wall cupboards shall be provided for approval by the Board; and ix. Juxtaposition of main external finishes / cladding.	
			C3.3	Bidders must submit proposals setting out	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				their approach to external hard and soft landscaping (including courtyards and therapy gardens) which shows how the design will be developed for therapeutic use and how it provides patient and staff access and how it enhances the environment of the Facilities. The proposals should demonstrate how the principle elements of external landscaping will be designed. to: i. Complement the RHSC and DCN buildings and the neighbouring RIE; ii. Minimise the risk of vandalism and crime; iii. Facilitate security of pedestrians and avoided 'no-go' areas in their design. Ensure site safety and link with the Green Travel Plan; iv. Minimise maintenance and operation costs; v. Ensure easy maintenance and cleaning whilst minimising health and safety issues; vi. Provide appropriate fire safety routes for all users; vii. Incorporate SUDS and other sustainable features; viii. Incorporate art work; and ix. Incorporate lighting, heating, seating, canopy and wind protection arrangements which are appropriate	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				for young children and less disabled people. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) those items listed in (i) – (ix) above.	
C4. Clarity, robustness and quality of approach to delivering innovation	Scored	2.64	C4.1	Bidders must submit proposals setting out their approach to delivering innovation. This should be provided as set out in C4.1 – C4.4 below: Bidders must submit proposals setting out where it will be, or has been possible to provide innovative solutions to meet the Board's requirements. Innovation in design can range from whole concepts of hospital planning, distribution of functions etc to the building solution (e.g. use of prefabricated units) to detail design of components, materials, spaces, use of technology and art	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				etc. Bidders must show how their design reflects current and developing innovations in healthcare delivery and construction generally and translate these into an innovative building solution.	
			C4.2	Bidders must submit proposals setting out how their design, using innovation, will optimise the sustainability of the Facilities. Bidders must provide details of their strategy to show how it will optimise energy, water and utility consumption, minimise waste production, implements a strategy to meet the Board's BREEAM requirements including carbon reduction and other positive activities described in the Board's Construction Requirements to provide a sustainable development.	
			C4.3	Bidders must submit proposals setting out how an innovative approach to the provision of ICT in the Facilities in line with the Board's Construction Requirements and FM Output Specifications has been delivered.	
			C4.4	Where areas of innovation are identified Bidders must submit supporting evidence, where possible, with examples from other schemes where this has proved successful. Bidders must provide information to show	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the benefit, cost and risk for each innovation so the Board can assess them separately.	
C5. Clarity, robustness, and quality of approach to adaptability and flexibility.	Scored	2.64		Bidders must submit proposals setting out their approach to adaptability and flexibility. This should be provided as set out in C5.1 and C5.2 below:	
			C5.1	Bidders must submit proposals setting out an adaptability strategy which shall describe what features have been incorporated to facilitate future adaptation of use and/or expansion, technological changes, changes in national policy, national and local planning, clinical advancement and seasonal or future strategic variations in use. It is expected that particular reference shall be made to potential changes in the delivery of surgical and radio diagnostic services given the rapid evolution of developments in these disciplines. All design disciplines i.e. architectural, mechanical and electrical, structural and environmental, must be considered.	
			C5.2	Bidders must submit proposals setting out their approach to adaptability and flexibility.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. How the interior spaces may be re-arranged in future if a change of use were to occur; ii. How the building's services and external infrastructure have been designed to allow this adaptability; iii. How the building structure and envelope, services, partitioning, ceiling, and flooring systems and construction technique has been designed to allow this adaptability; iv. How the main electrical installations can accommodate changes over and above the 25% capacity increase (requested in Section 3 Board's Construction Requirements) with minimal structure disruption; and v. How the environmental services strategy will co-ordinate with the adaptability and flexibility strategy.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C6. Clarity, robustness and quality of way finding and signage proposals	Scored	1.06	C6.1	Bidders must submit proposals demonstrating their way finding strategy. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) how it has been developed to: i. Suit the needs of the particular patient mix for the Facilities i.e. children, young people and adults using different services, as well as staff and visitors; ii. Include internal and external signage and signage outside the site boundary relevant to the Facilities. External signage shall include proposals for the wider RIE site, pedestrians, vehicles and street signage; iii. Integrate with the art strategy and lighting strategy for the Facilities; iv. Take cognisance of patient journey times and take steps to minimise such journey times; v. Minimise the transmission of micro-organisms and separates clean and contaminated traffic and material streams; vi. Include hand hygiene signage; vii. Include no smoking signage; viii. Make reference to sample or exemplar	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				site information provided by The Board; and ix. Make use of signage in the floor.	
C7. Clarity, robustness and quality of interior design proposals	Scored	2.64	C7.1	Bidders shall submit their interior design proposals. This must be provided as set out in C7.1 and C7.2 below: For both the RHSC and DCN sectors of the Facilities Bidders must submit proposals setting out how their design has been developed to include: i. Interior design proposals and illustrations for each distinct area of the Facilities, paying particular attention to the interior design solutions for public, patient and key staff areas; ii. Communal patient areas that are light, spacious and provide a welcoming atmosphere and which are domestic in design and ambience with the main entrance being immediately apparent; iii. Public areas which are restful, open and well lit with natural light and have views out to landscaped spaces that add quality and orientation; iv. An open and friendly environment, that	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				shall ensure privacy and dignity for patients, family members and visitors when required; v. The incorporation of art in the proposals. Bidders shall provide the name(s) of the artists whom will undertake the work; vi. Integration with their lighting strategy and equipment strategy; vii. Integration with maintenance, cleaning, operation and sustainability; viii. Integration with way finding and signage proposals and how the way finding and signage within the RHSC and DCN links with the way finding within the existing RIE; ix. How the interior materials within the Facilities match the furniture, furnishings and equipment being procured by the Board; and x. Facilities which have a safe and secure environment which is not created via visible security features e.g. security cameras. Safety in design shall also take consideration of anti-ligature, child safety, and Child and Adolescent Mental Health Service whilst maintaining access and ambience. For indicative purposes only it is anticipated	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				that Bidders proposals may include (but shall not necessarily be limited to) those items listed in (i) – (x) above.	
			C7.2	Bidders must submit proposals setting out how their interior design for the RHSC has been developed to provide: i. Age and ability appropriate signage throughout the Facilities; ii. A nurturing, relaxed and safe environment in the patient, communal and public areas; and iii. Furniture, windows and lines of sight which are appropriate for young children and children in pushchairs and wheelchairs.	
			C7.3	Bidders must submit proposals setting out how their interior design submission for the DCN provides a nurturing, quiet and relaxed environment in the patient, communal and public areas.	
C8. Clarity, robustness and quality of M&E engineering design proposals	Scored	1.06		Bidders must submit proposals setting out their approach to M&E engineering services design. This must be provided as set out in C8.1 – C8.3 below:	
			C8.1	Bidders must submit proposals setting out	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the engineering services design for each element of the scheme in sufficient detail to demonstrate compliance with the Board's Construction Requirements. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. An engineering design, control and operational philosophy statement; ii. Details of principal M&E system selections; iii. The definition of plant areas and zones both internal and external to the Facilities; and iv. Schematics and written proposals for major plant provision.	
			C8.2	Bidders must submit proposals setting out how their design will be developed to include the following: i. Building services which support the Board's business, safety and security and life critical services under supply failure scenarios. Specific details shall be provided relating to standby facilities and mains service redundancy; ii. An autonomous energy centre and associated plant; iii. How temperature, ventilation and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				comfort for occupants will be maintained in accordance with the minimum criteria and how, if possible, these criteria will be improved; iv. How the quality of the environment and prevention of sick building syndrome shall be ensured; v. How mechanical and electrical design is integrated with architectural, structural and civil aspects as outlined above in C2 and C4; vi. How sustainability has been incorporated into their design, including details of the maintenance and operation philosophy for all mechanical and electrical equipment; vii. Proposals for external services, including details of the main routes (including proposed connections to existing services), intakes and off-site reliance of these services and how this interfaces with adjacent sites (this is also discussed in C18 below); viii. Details of the main source of heating energy; and ix. Details of mechanical and electrical innovations including costs as described in C4. The following information should be also be	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				provided to help demonstrate the design proposals noted above, including: x. An environmental conditions / room provisions matrix for both mechanical and electrical services for each room in the Facilities; and xi. Major plant life cycle statements and design life, including an explanation of the Bidder's lifecycle philosophy to support the lifecycle costing analysis completed in the technical costs proforma;	
			C8.3	Whilst Bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C9. Clarity, robustness and quality of natural and artificial lighting proposals	Scored	1.06	C9.1	Bidders must submit proposals setting out their approach to natural and artificial lighting within the Facilities. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. The balance of natural and artificial light; ii. How the environment created by the lighting design will support the well being of patients, carers, visitors and staff; iii. How it will be functional for clinical use; iv. How it will produce an aesthetically pleasing environment; v. How it will be co-ordinated with the building structure and how it will integrate with other areas e.g. mechanical and electrical design, interior design and architecture; vi. How it will include sustainability and energy efficiency; vii. How the interior lighting philosophy will include room usage and warning signs, night lighting, security emergency signage and emergency lighting, lighting control and wiring philosophy, standby lighting; and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				viii. How the external lighting philosophy will minimise light pollution for the neighbours including the RIE, assist to minimise vandalism, assist to improve security, and take account of local residents' needs.	
C10. Clarity, robustness and quality of energy management proposals	Scored	1.85	C10.1	Bidders must submit proposals setting out their approach to energy management. This should be provided as set out in C10.1 and C10.2 below. Bidders must submit an energy model, complete with supporting information, demonstrating how their design solution will achieve an optimum level of energy and utility conservation (linked with the requirement for a sustainable development in C4) and show that their design fulfils the following: i. The building energy performance will achieve a minimum of 6 credits for ENE.01 in the BREEAM assessment. ii. The water consumption for the Facilities will not exceed 170,000	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				litres/bed/annum (Part 6 Section 3: The Board's Construction Requirements); iii. 20% of energy is provided by renewable energy sources (Part 6 Section 3: The Board's Construction Requirements); and iv. The inclusion of passive design strategies for ventilation and thermal control. The environmental control system is to be co-ordinated and integrated with the design of the structure and the occupied areas in order to maximise the control and flexibility of the installations. In addition Bidders must submit an analysis of their design solution which demonstrates energy consumption proposals along with cost estimates of specific measures or innovations to be introduced. C10.2 For information purposes only in addition to the model referred to above a dynamic thermal energy model is to be submitted which should comply with the parameters set out in Appendix F of the ITPD Volume 1.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C11. Clarity, robustness and quality of equipment proposals	Scored	1.06	C11.1	Bidders must submit proposals setting out their approach to equipment. This must be provided as set out in C11.1 and C11.2 below. Bidders must submit the following: : i. A commentary showing how the Group 1 Equipment scheduled by the Board varies from their own assessment of Group 1 Equipment needs. This shall be done by providing a mark-up of the Group 1 Equipment included in Equipment Schedule contained in Volume 3 of the ITPD. It should be noted that the quantity of Group 1 Equipment specified by the Board is considered to be a minimum; ii. A commentary on any aspect of the proposed equipment responsibilities regime suggested in paragraph 2.15 (Equipment) of the ITPD Volume 1. that is not considered to represent best value to the Board, and suggestions as to alternative profiles of responsibility, if any, that may enhance this; iii. A commentary setting out their proposals to select equipment suppliers and how the required level of	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				quality is to be achieved in the equipment for which they will be responsible for supplying and any improvement in the level of quality being proposed. Samples of worktops and wall cupboards shall be provided for approval by the Board to support this; and iv. Their approach to working alongside the Board to allow the Groups 2A, 2B and 3 Equipment to be installed and how this process will be managed. Bidders must submit a fully priced Schedule of Group 1 Equipment, the total sum for which should be clearly identifiable in the Technical Cost Proforma requested at C29 below.	
C11A Compliance with minimum level of Group 1 Equipment	Pass / Fail	n/a	C11A.1	Bidders must provide confirmation that they will comply with the minimum level of Group 1 Equipment as set out in the Equipment Schedule and Equipment Responsibility Matrix.	
C12. Compliance With Mandatory Reference Design Requirements	Pass / Fail	n/a	C12.1	Bidders must submit proposals demonstrating how their design complies with the Mandatory Reference Design Requirements.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C13.Acceptable approach to achieving planning permission	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to achieving planning permission. This must be provided as set out in C13.1 and C13.2 below.	To Pass, Bidders will be required to demonstrate that the granting of approvals for the scheme will be achieved
			C13.1	Bidders must submit proposals demonstrating compliance including a methodology for achieving planning approval accordance with paragraph 2.17 of Volume 1 of the ITPD. This should include the following: i. Community requirements; ii. Policy of the local planning authority; iii. Development Framework requirements; and iv. “Good neighbourliness”.	
			C13.2	Bidders are required to (in conjunction with the Board) participate in planning consultation meetings with the City of Edinburgh Council regarding planning requirements. From these consultations Bidders must submit evidence to demonstrate that the granting of approvals for the scheme will be achieved in the Preferred Bidder stage and confirm any perceived obstacles / project risks (both known and unknown) in this regard shall be clearly drawn to the Board’s attention.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C14. Acceptable vertical and horizontal movement strategy	Pass / Fail	n/a		Bidders must submit proposals setting out their vertical and horizontal movement strategy. This must be provided as set out in C14.2 – C14.3 below.	
			C14.1	Bidders must submit proposals setting out a coherent strategy which shows how their design has been developed for managing different categories of traffic and materials within the Campus Site. This shall include the movement of people and vehicles and the distribution of supplies and waste and the separation of clean and contaminated traffic and materials during transportation, storage and at drop off points.	
			C14.2	Bidders must submit proposals setting out how their design has been developed to minimise travel time and distances for patients, staff, and material transmission of micro-organisms either through airborne or other means to support and segregate a natural flow of pedestrian and vehicular traffic.	
			C14.3	Bidders must submit proposals setting out	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				how their design has been developed to include a strategy for the following: i. Wheelchair users, less able users and transportation of small children and babies that will use the Facilities; ii. Incorporation of fire fighting lift(s) to maintain evacuation use for the less able, small children and babies in an emergency situation; and iii. The route required by people and materials from the helipad, the RIE and the Facilities.	
C15. Acceptable ICT strategy and Bidders proposals, compliant with Board's requirements	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to a compliant ICT strategy. This must be provided as set out in C15.1 – C15.4 below.	
			C15.1	Bidders must submit proposals setting out their ICT strategy and demonstrating an understanding of the Board's requirements for information management and technology (M&T).	
			C15.2	Bidders must submit proposals setting out a detailed methodology demonstrating how it will ensure compliance with the Board's Construction Requirements, define clear interfaces of responsibility as necessary,	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				and how they will take overall responsibility for the coherence and compatibility of systems such that they will operate to suit the Board's needs.	
			C15.3	Bidders must submit proposals setting out the number, location size and specification of IT / communications rooms.	
			C15.4	Bidders must submit proposals setting out how the Board's routing, fire suppression, ventilation and connectivity to the RIE requirements has been specifically addressed.	
C16. Acceptable fire planning strategy	Pass / Fail	n/a		Bidders must submit proposals setting out their fire planning strategy. This must be provided as set out in C16.1 and C16.2 below.	
			C16.1	Bidders must submit proposals setting out their strategic fire strategy, demonstrating how the design will be developed to consider fire compartmentation and horizontal and vertical evacuation strategies.	
			C16.2	Bidders must submit proposals setting out how their fire planning strategy has been developed. For indicative purposes only it is	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. The implications on staff and users in the event of a fire; ii. A clear understanding of the policies and principles underlying fire safety in NHS premises, compliance with NHS polices and principles and full agreement and coordination with Lothian and Borders Fire and Rescue Service, The CEC Council's Building Control Department and the Board's Fire Officer; iii. Compliance with: The Building (Scotland) Regulations 2004 and The Building (Scotland) Amendment Regulations 2011, SHTM 81 and SHTM 82; iv. How a Fire Engineering solution has been developed (if it has been proposed), to what extent it has been agreed with the regulatory authorities and how the Board will not be exposed to any additional risks (programme, quality or cost) should the solution need to be amended or abandoned during the course of the development and finalisation of proposals; v. Integration of their fire strategy with	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the fire strategy for the RIE Facilities to ensure they are compatible and operate in conjunction and how the fire strategy issues at the Link with the RIE Facilities are to be addressed; vi. Details of external and internal access and circulation routes, including a safety and security statement for each element of the scheme with particular reference to the different patient types using the Facilities; and vii. Details of how the particular issues in the surrounding areas of high fire risk such as the helicopter landing pad are to be addressed.	
C17. Acceptable structural design proposals	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to structural design. This must be provided as set out in C17.1 - C17.3 below.	
			C17.1	Bidders must submit proposals setting out a statement of the structural design philosophy which shall demonstrate how their design has been developed including a methodology for ensuring a safe, aesthetically pleasing and durable structure.	
			C17.2	Bidders must submit proposals relating to	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the following elements: i. Substructure; ii. Structural frame solution, including grid arrangements; iii. Ground, suspended floor slab and roof construction; iv. External wall and internal partition construction; v. Fire protection strategy and proposed methods to be adopted ; and vi. Methods for dealing with floor penetrations both during new build works and to accommodate future potential needs.	
			C17.3	Bidders must submit the following: i. A schedule and/or drawings demonstrating the dead and imposed loading design criteria (both uniformly distributed and concentrated loads) adopted for all areas of the Facilities; ii. Specification of construction and materials to be utilised in the hard external works e.g. roads, pavements etc.; iii. Details of their proposals for co-ordinating structure with space requirements and distribution of services taking into account maintenance and replacement during	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				the operational life of the buildings; iv. Details of opportunities for the future expansion of Clinical Services and Non-Clinical Services. The Bidders shall ensure that the physical arrangement of the Facilities allows for growth and change of clinical services in the future, as far as is practical for example partition moves and additional service runs both vertically and horizontally. The cost implications of structural solutions to future proof the Facility by creating 'soft spots' (refer also to C5 above) shall also be included; and v. A detailed description of the design of the drainage system, taking into account matters such as the design itself, allowable discharge into the public sewers, the need or otherwise for surface water attenuation and the incorporation of drainage to existing buildings within the site drainage proposals.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C18. Acceptable services, utilities and infrastructure proposals	Pass / Fail	n/a	C18.1	Bidders must submit proposals setting out their mains service infrastructure strategy for the site, and defines principal service routes external to the buildings. This shall also demonstrate adequacies of capacities including details of these provided by Utility providers.	
C19. Acceptable approach to achieving required BREEAM rating	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to achieving the required BREEAM rating. This must be provided as set out in C19.1 and C19.2 below.	
			C19.1	Bidders must submit a draft BREEAM assessment of their proposals with supporting commentary. Bidders shall demonstrate how they will achieve, as a minimum, a “Very Good” rating in line with the requirements for healthcare facilities as set out in the BREEAM Scheme Document for New Construction (SD5073) 2011.	
			C19.2	Where assumptions with respect to certain elements within these assessments have to be made (i.e. such details that would ordinarily be developed during the Preferred Bidder or post Financial Close period) the basis for these assumptions, including	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				substantiation, must be set out in the Bidders proposals.	
C20. Acceptable post Preferred Bidder stage design development proposals and design programme	Pass / Fail	n/a	C20.1	Bidders must submit proposals setting out their approach to design development and design programme. This must be provided as set out in C20.1 and C20.2 below. Bidders must submit proposals setting out their approach to be adopted to manage the design process (taking account of the design review procedures to be implemented). For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Further development of 1:500, 1:200 and 1:50 design drawings and other design details and how these will be developed in conjunction with the Board's project team, user groups, specialist advisers and other project stakeholders, to achieve sign off to the proposals; ii. Further development of the	To Pass, Bidders will be required to demonstrate clear proposals setting out a robust process, supported with a logical and deliverable programme, for the development process both up to, and beyond, Financial Close.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				specifications and engineering related drawings and how these will be developed in conjunction with the Board's project team to achieve sign off of the proposals; iii. The anticipated level of involvement that the Board will have in the design development process, and the number of main design iterations anticipated; iv. Outline proposals for change control, confirmation of technical queries and other design related management tools; and v. Further development of interior design proposals to the satisfaction of the Board incorporating patient groups.	
			C20.2	Bidders must submit a design programme to Financial Close and thereafter to design completion. This shall: i. Show the proposed programme for the development of the design drawings and specifications (supplemented by samples and models as appropriate) and other technical schedules to the NPD Project Agreement; ii. Clearly indicate the expected number of design drawings and specifications;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				iii. Clearly define periods allowed for the Board's consideration of proposals; and *iv.* Demonstrate how and when sign off of the Board's Construction Requirements will be achieved in this period by the Preferred Bidder, and how this sign off relates to development and sign off of Project Co Proposals.	
C21. Compliance with Board's Construction Requirements	Pass / Fail	n/a	C21.1	Bidders must confirm their compliance with the Board's Construction Requirements. If as their design has been developed there are specific areas of the Board's Construction Requirements that Bidders would seek to change, these shall be scheduled and provided in support of the statement. The Board shall not be required to accept any proposed amendments.	
C22. Acceptable design life proposals	Pass / Fail	n/a	C22.1	Bidders must submit a schedule of design life proposals against the elements listed in section 5.1 (Schedule of Life Expectancies) of the Board's Construction Requirements.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C23. Acceptable construction programme and approach to monitoring	Pass / Fail	n/a	C23.1 C23.2	Bidders must submit proposals setting out their construction programme and approach to monitoring. This must be provided as set out in C23.1 and C23.2 below. Bidders must submit a high level programme, for the Works, comprising a network and linked bar chart programme covering all of the main and key elements of design, construction, testing, commissioning and completion and covering the period from Financial Close to Post Completion Commissioning. The programme must include as a minimum, the following information: i. Sequencing of activities showing logic links, restraints and constraints; ii. Key activity durations; iii. Critical paths, including the identification of critical dependencies of activities and float; iv. Key and other target milestones; v. Planning approval, and other statutory consents; and vi. Proposed Relevant Service Transfer Dates. Bidders shall submit proposals setting out how they shall manage and monitor the programme, including their approach to	To Pass, Bidders will be required to demonstrate a logical and deliverable construction programme supported with a robust process for programme management.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				minimising the effects of delays and unforeseen circumstances.	
C24. Clarity, robustness and quality of construction methodology	Scored	1.85		Bidders must submit their construction methodology proposals. This must be provided as set out in C24.1 - C24.10 below.	
			C24.1	Bidders must submit proposals setting out in sufficient detail how they will deliver the development including their construction strategy, proposals and method statements. Bidders shall address in detail how the Works phase of the project will be managed including a methodology covering day to day management.	
			C24.2	Bidders must submit proposals setting out in sufficient detail how they shall mitigate the egress of water, dust, debris or any microbiological contamination out of the Site and into adjacent buildings i.e. how they will ensure they are a considerate contractor.	
			C24.3	Bidders must submit proposals setting out in sufficient detail how they will follow the provisions of Sections 60 and 61 of the Control of Pollution Act 1974, with reference to the control of noise due to any demolition	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				or construction works in particular for works adjacent to an occupied property i.e. RIE and other occupiers of the wider estate.	
			C24.4	Bidders must submit proposals setting out in sufficient detail how they will not only adhere to legal obligations but how they will ensure that "at all times the requirements and reasonable wishes and safety of the immediate neighbours to the Campus Site (including the Royal Infirmary of Edinburgh, Little France site) are respected" with particular consideration to key locations such as A&E and operating theatres.	
			C24.5	Bidders must submit proposals to set out in sufficient detail how they will ensure that they will integrate with and not inhibit the RIE pedestrian, vehicular, cycle, service vehicular and emergency vehicular movements, access routes and parking during construction and during operation of the Facilities. The submission must set out how they will ensure site safety at all times.	
			C24.6	Bidders must submit proposals, in sufficient detail, setting out how continuity of utility supplies and operational continuity of the immediate neighbours is to be maintained at all times. The Bidders submission shall also	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				provide outage protocols in case these safeguards fail to protect the neighbours	
			C24.7	Bidders must submit proposals, in sufficient detail, setting out a detailed methodology demonstrating their proposals for the safe and compliant disposal of surplus excavated material, all building spoil, demolition waste and rubbish.	
			C24.8	Bidders must submit proposals of their site office set up. This shall describe in particular how they are to be serviced and how safe access and egress will be provided.	
			C24.9	Bidders must submit proposals setting out in sufficient detail their approach to storage of materials. This shall describe in particular how materials will be delivered to, stored, and then transferred to the Site for incorporation in the Works.	
			C24.10	Bidders must submit proposals setting out in sufficient detail their construction phasing and access methodology which shall demonstrate how the proposals have been developed to address the Site constraints and interfaces with the wider site. Bidders must include their proposals for creation of	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				a temporary construction access over the Yellow Area (as shown on Plan 2). Bidders must submit details of location of access and methodology for its construction. This will form part of the management procedures for the Works as regards satisfying town planning matters as detailed in the ITPD. Further details are set out in paragraph 1 (Construction Access over Yellow Area) of Section 1 of Part 1 of Appendix A of the Board's Construction Requirements.	
C25. Acceptable approach to commissioning and handover	Pass / Fail	n/a	C25.1	Bidders must submit proposals setting out a commissioning programme, supported by a methodology demonstrating how this will be developed and agreed in conjunction with the Board. For indicative purposes only it is anticipated that Bidders proposals may include (but shall not necessarily be limited to) how they will provide the following: i. Management of interfaces with the Board and the Board's contractors and other parties e.g. Consort for the Link Building and obtaining such other parties consents\approvals as required; ii. How they will carry out commissioning	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				activities both before and after the Actual Completion Date; iii. Access for the Board during the Works including access for equipment installation (Groups 2A, 2B and 3) and the Board's Contractors; iv. A "zero defects" culture in order to deliver the scheme with few or no snagging items at the Actual Completion Date. Bidders shall outline a contingency plan for investigating and rectifying any defects which could still occur despite all best endeavours of the Project Co. In addition proposals should be submitted outlining how snagging items will be closed out after the Actual Completion Date; v. Facilities handover including how they shall interface and assist the Board with their decanting, familiarisation and training for the Facilities and proposals on how they shall work closely with the Board in developing an occupation plan; vi. Facilities which are "Handover Clean". Bidders shall demonstrate within their response: ▪ How this will be managed in terms of the sign–off of the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Facilities and handover process; and ▪ Details of any specialist contractors that may be used as part of this process.	
C26. Acceptable approach to quality and environmental management systems	Pass / Fail	n/a	C26.1	Bidders must submit proposals setting out their approach to construction quality and environmental management systems. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. Confirmation that they will complete the Works in accordance with the requirements of BS EN ISO 9001 and 14001or any equivalent standard; ii. Details of proposed quality assurance and environmental management systems (i.e. a system synopsis); iii. Details of their approach to developing the quality and environmental management systems, including key dates; iv. Where individual quality and environmental management systems of the designers, contractor, service provider and Project Co are to be used, a statement regarding how these separate systems will be	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				integrated to form a coherent overall quality management system. For the avoidance of doubt, the Board requires Project Co (in addition to their sub-contractors) to adopt and implement a compliant system; v. Details of their approach for monitoring quality during construction (this may be by reference to a similar system implemented on a similar scheme); i.e. compliance with current revisions of BS 8000: Series "Workmanship on Building Sites, BS 5606:1990 "Guide to Accuracy in Building". and other activities based on Good Industry Practice current at the time, as a minimum; vi. Details of their approach for auditing the quality and environmental management systems. This shall include details of the independent, internal and external audits of Project Co and its sub-contractors; and vii. A description of how the proposed systems will integrate with their strategies for risk mitigation.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
C27. Acceptable approach to health and safety management	Pass / Fail	n/a	C27.1	Bidders must submit proposals setting out their health and safety management system. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. Confirmation that they will adopt and implement an accredited health and safety management system complying with the requirements of OHAS ISO 18001. For the avoidance of doubt the Board requires that Project-Co adopt and implement a compliant system; ii. Details of all proposed designers, sub-contractors, and suppliers confirming that they operate and accredited health and safety management system complying with OHAS 18001 standards covering all aspects of the project as applicable. Copies of current certificates from an accredited third-party assessment body showing that systems are compliant should be provided; iii. Details of the approach for auditing designers, contractors, sub-contractors and suppliers of their	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				health and safety management systems. This should include details of internal, external and independent audits of Project-Co; iv. Proposals for managing occupational health that will be implemented; v. Key dates for development of the system; vi. Safety in design and how Bidders have removed risks through design innovations; vii. Potential constraints on their Works activities when considering the health and safety of their immediate neighbours and other members of the public that may be affected by the Works. This shall include construction traffic management plan within the Campus at Little France and restrictions on the movement of water, dust, vibration, noise and micro-organisms; viii. How any risks to health and safety will be managed and mitigated throughout the Works; ix. How they plan to deal with the potential occurrence of below ground services crossing the Site, in addition to the removal of other	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				below ground obstructions that may still be present from previous demolition works; x. Methodology for the use of overhead cranes; xi. The removal of waste material; xii. Compliance with HAI Scribe; xiii. Storage, transportation and handling of gas cylinders (for construction use); and *xiv.* How their proposals facilitate the control and management of an outbreak and spread of infectious diseases in accordance with HTM 2025 and SHFN 30.	
C28. Acceptable approach to compliance with CDM regulations	Pass / Fail	n/a		Bidders must submit proposals setting out their approach to achieving compliance with the CDM regulations. This must be provided as set out in C28.1 and C28.2 below.	
			C28.1	Bidders must submit proposals setting out how they will comply with the requirements of the Construction (Design and Management) Regulations 2007. Particular reference shall be made to Project Co's role as Client, in addition to proposals to cover discharging the duties of CDM Coordinator, Designer and Principal Contractor under the Regulations. Bidders shall also include the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				methodology to demonstrate how they will deal with potential commercial and other conflicts between their constituent parts with respect to compliance with the Regulations and shall provide the following: i. A competency submission for the individual who will be leading the role of CDM co-ordinator, in accordance with CDM ACOP L144 “Managing Health and Safety in Construction”; ii. A Health and Safety document to identify how the requirements of Appendix 4 of the ACOP L144 “Managing Health and Safety in Construction” will be applied on the project; iii. The format of the Pre- Construction Information relating to the project to address the requirements of Appendix 2 of the CDM ACOP L144 “Managing Health and Safety in Construction”; iv. The contents and structure of the Construction Phase Plan relating to the project to address the requirements of Appendix 3 of the CDM ACOP L144 “Managing Health and Safety in Construction”; v. Details of the induction process to	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				address the requirements of section 184 and 185 of the CDM ACOP L144 “Managing Health and Safety in Construction”; vi. The format to be used for the Health and Safety File to address the requirements of section 263 of the CDM ACOP L144 “Managing Health and Safety in Construction”; and vii. Details of the process for managing health and safety in Design including hazard elimination and risk reduction, principles of prevention, provision of information and management of the Design process as required by the CDM ACOP L144 “Managing Health and Safety in Construction”.	
			C28.2	Bidders must submit proposals setting out how they have complied with the CDM duties during the Dialogue Period and provide a design risk assessment which is to be updated as the design is progressed.	
C29. Robustness of technical costs	Pass / Fail	n/a	C29.1	Bidders must submit fully completed technical cost proformas contained in the ITPD. All information requested must be provided. Bidders’ completed proformas shall be provided in the same MS Excel	To Pass, Bidders will be required to demonstrate that their technical costs are robust for the scope of works to be delivered.

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				format to allow direct comparison between bids.	
C30. Acceptable list of summary assumptions, clarifications and derogations	Not Scored	n/a	C30.1	Bidders must submit a consolidated schedule of all assumptions, clarifications and qualifications made in respect of their ITPD Bids. Whilst it is encouraged that such references are also made in the appropriate locations throughout Bidders' submissions, it is a mandatory requirement of the ITPD Submission that all such matters are also summarised in a single location.	
C31. Acceptable Interface Proposals	Pass / Fail	n/a	C31.1	Bidders must submit proposals setting out their approach to meeting the interface issues as described in Appendix A of the Board's Construction Requirements (subject to the conditions set out in Clause 9 (Nature of Land Interests) including without limitation Schedule Part 5 (Land Matters) of the NPD Project Agreement).	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
D. Approach to Facilities Management					
D1. Clarity, robustness and quality of approach to management and administration of the Services and Contract	Scored	2.50	D1.1	Bidders must submit proposals setting out their proposed approach to managing and administering both the Services and the NPD Project Agreement itself. The Bidder is also required to provide a detailed proposal for the management, liaison and interfacing with the Board and the other Board service providers, these being Authority Parties. The importance to the Board of a holistic approach to the delivery of Services under the NPD Project Agreement cannot be overstated. The success of this will be dependent upon the quality of the general management of the Project. Bidders must submit the following: i. Full Method Statements for the management and administration of the Project Agreement and Services contained therein; ii. Location of the members of Project Co's administration team (i.e. on or off site); iii. Details of Bidder's proposed managerial structure, indicating the roles and responsibilities of each manager, supervisor and team member; iv. Details of how material changes to the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				management structure of Project Co will be communicated to the Board; v. Details of how changes to working practices and / or Service delivery timings will be communicated to the Board; and vi. Details of how it is proposed to electronically manage Services management and administration to improve delivery.	
D2. Acceptable approach to integration with Board policies and operation	Pass / Fail	n/a	D2.1	Bidders must submit proposals setting out how they will comply, integrate and align their methodologies with the Board's policies, operation and procedures for the delivery of Services to the Facilities. This must include the following: i. Details of how it will ensure that the Services are delivered in accordance with the requirements of the Health planning Standards/NHS Requirements as detailed within paragraph 2.3 of Volume 3 of the ITPD.	
D3. Acceptable approach to ensuring quality management	Pass / Fail	n/a	D3.1	Bidders must submit proposals setting out their Method Statements for quality management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Description of any quality management systems or policies the Bidder has for the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Services or would put in place for the Services; ii. Interface with the Board's Quality Assurance representatives iii. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate; iv. Proposals for carrying out audits, including the provision of their proposed audit programme for the Services; and v. Details of the Bidder's proposals for the escalation of activities following a major incident including interface with the Board.	
D4. Acceptable approach to ensuring environmental management	Pass / Fail	n/a	D4.1	Bidders must submit proposals setting out their Method Statements for environmental management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Interface with the client's environment representatives; ii. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate; iii. Details of their approach to ISO 14001 and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				shall describe any relevant experience of implementing such systems for other local authority or NHS clients of the Bidder; iv. Bidder's environmental policy statement, and shall state explicitly whether they have, or are working towards developing an environmental strategy; v. Bidder's environmental management system, for their own organisation and/or for this project; vi. Structure of the environmental management system; vii. Details of the Bidder's approach and commitment to use of ethical and sustainable materials; viii. Proposals for carrying out audits, including the provision of an indicative audit programme for the Services; and ix. Details of the Bidder's proposals for the escalation of activities following a major incident, including interface with the Board.	
D5. Acceptable approach to ensuring health and safety management	Pass / Fail	n/a	D5.1	Bidders must submit proposals setting out their Method Statements for health and safety management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Procedure for disseminating hazard and safety warnings;	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				ii. Methodology for the development and maintenance of the health and safety system relevant to the Services; iii. Interface with the Board's health and safety representatives; iv. Process for maintaining effective overall control of all site activities and the coordination of and liaison with all staff such that there are suitable integrated arrangements to allow compliance with the Health and Safety at Work Act 1974; v. Process to ensure that Project Co's advisers are continually aware of any relevant legislative changes and procedures for communicating these changes to the Board as appropriate: vi. Process to ensure constant access to health and safety professionals for both its own staff and the Board's nominated representatives; vii. Develop bespoke risk assessments recognising the services being delivered at the RIE and University on the wider Campus. viii. A copy of the Bidder's Health and Safety policy and a description of their approach to ISO 9001 and ISO 18001 or similar systems; ix. Proposals for carrying out audits, including the provision of an indicative audit programme for the Services; and x. Details of their proposals for the escalation	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				of activities following a major incident including interface with the Board.	
D6. Acceptable approach to interfacing with the Board for undertaking works outside of access times	Pass / Fail	n/a	D6.1	Bidders must submit proposals setting out their approach to interfacing with the Board for undertaking works outside of access times. This must include the following: i. How they will ensure that any Works and Services proposed to be undertaken outside agreed Access Times are agreed with the Board's Representative prior to commencement; and ii. How Works and Services will be managed and carried out in accordance with Permit to Work System.	
D7. Clarity, robustness and quality of approach to partnership and resources including liaison, resources and supply chain management	Scored	2.50	D7.1 D7.2	Bidders must submit proposals setting out their approach to partnership and resources including liaison, resources and supply chain management. This must be provided as set out in D7.1 – D7.3 below. Bidders must submit proposals setting out their approach to communications with the Board or its representatives. This shall include their proposed appropriate interfaces, frequency, nature and structure of meetings and reporting. Bidders must submit proposals setting out:	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				i. Details of storage, maintenance and disposal of plant, equipment, materials, consumables, packaging and chemicals used in the delivery of the Services; ii. Details of suitably qualified staff and availability to meet the requirements of this NPD Project Agreement.	
			D7.3	Bidders must submit proposals setting out: i. Details of how the supply chain will be managed; ii. Proposed approach to delivery of Services through the supply chain; iii. Method of creating a successful integrated Services team.	
D8. Acceptable approach to business continuity planning	Pass / Fail	n/a	D8.1	Bidders must submit proposals setting out their approach to business continuity planning. This must include the following: i. Details of its approach to business continuity planning including: a. Its approach to the creation and maintenance of its own business continuity plan and disaster recovery plans for the required Services; b. The proposed approach to supporting the Board's "Business Continuity; and c. Details of who within the management team will have overall	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				responsibility for business continuity. ii. Details of its proposed training procedures for staff who will participate in emergency procedures; iii. Details of its proposals for testing Business Continuity Plans at the property; iv. Details of its proposals for the escalation of activities following a major incident (and\ or at the request of the Board); v. Details of its own, internal Business Continuity (e.g. those plans related to its own survival as a business following a major incident); and vi. Details of the existing arrangements for testing its own, internal Business Continuity Plans.	
D9. Acceptable fire safety policies and procedures	Pass / Fail	n/a	D9.1	Bidders must submit proposals setting out their approach to fire safety policies and procedure. This must include the following: i. Details of its fire safety policy ii. Details of fire safety and security systems and procedures to be implemented on site including their approach to the Helipad. iii. Approach to ensuring an integrated fire safety strategy for the overall site, including appropriate interfaces with the Board and other Third Party organisations i.e. Authority Parties.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
D10. Clarity, robustness and quality of approach to performance and information management including; helpdesk, programme maintenance lifecycle, performance monitoring, monitoring and records, regular reports and information requests, building services and statutory testing	Scored	4.50		Bidders must submit proposals setting out their approach to performance and information management, This must be provided as set out in D10.1 – D10.8 below.	
			D10.1	Bidders must submit proposals setting out details of their proposed computer-aided facilities management (CAFM) system and how they will provide an asset management and reporting capability. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. Call receipt and management and escalation; ii. Management information; iii. Reporting; iv. Incident management; v. Alarm management; vi. Maintenance scheduling; vii. Asset data maintenance; viii. Helpdesk interface protocol with the Board and/or third party's; ix. Proposed staffing and location of the helpdesk; x. Interface between the helpdesk and other aspects of the CAFM system; xi. Reporting procedures and frequency of reporting; and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				xii. Enabling the Board to gain access to the data held within the BMS in a format/ method agreeable to the Board.	
			D10.2	Bidders must submit proposals setting out their approach to programme maintenance lifecycle. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. The information and delivery strategy which will be utilised in establishing a Programmed Maintenance planner; ii. Confirmation that the Bidder recognises that certain works will need to be undertaken out of normal working hours/ during the weekends to minimise the impact on the Board's operations, and without additional cost to the Board; iii. Method of establishing and updating their 5-year Maintenance Lifecycle plan; iv. Details on the provision of all specialist sub-contractors for programmed maintenance and lifecycle; v. Details of how it will ensure that the delivery of all Services will underpin the required hygienic/infection control standards for the facility, specifically compliance with HAI Scribe standards; vi. Details on staffing and management of the	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				Service; vii. Details on how planned, reactive and statutory works are to be monitored for both quality and safe methods of work. This should include works that are undertaken by directly employed staff and any sub-contractors; viii. Details of proposals to assess staff roles and responsibilities, skill requirements, competency, training arrangements and review procedures; ix. Details on its approach to planned, reactive and statutory maintenance including prioritising business critical equipment and systems at all premises together with details on how any planned maintenance that is not achieved by the planned date is addressed; x. Sample of proposed Service Report to be used for this Contract; xi. Details on interface with Board's cleaning service when carrying out Programmed Maintenance; xii. Schedule for cleaning of all internal and external panes of glazed areas of the Facilities envelope; and Schedule of planned external façade cleaning service.	
			D10.3	Bidders must submit proposals setting out details of their proposed delivery strategy and key activities. For indicative purposes only it is	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				anticipated that Bidders proposals may include (but should not necessarily be limited to) the following service areas: i. Mechanical maintenance ii. Electrical maintenance iii. Plumbing iv. Lift maintenance v. Fire safety system/ equipment vi. Internal / external fabric of the Facilities vii. Periodic electrical testing and inspections viii. Lift inspections ix. Pressure vessel x. Pressure systems (written schemes) xi. Water systems risk assessments xii. Fire risk assessments xiii. Water sampling / testing	
			D10.4	Bidders must submit proposals setting out their approach to performance monitoring. This must include the following: i. Description of how the performance of the Service will be self-monitored; ii. Approach to customer feedback and complaints handling; iii. Sample customer feedback form.	
			D10.5	Bidders must submit proposals setting out their approach to monitoring and records. This must include the following: i. Details on how the Bidder will ensure all	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				certificates, appropriate documentation and records in relation to the Project are stored in accordance with appropriate legislation and the Board's policies; and ii. Details on how the Bidder will ensure all records in relation to the Project are maintained accurately and kept up-to-date.	
			D10.6	Bidders must submit proposals setting out their approach to regular reporting and information request. This must include the following: i. Procedures for ensuring that the reports are appropriately tailored to the Boards requirements, including the completion period for such reports; ii. Details on how it will ensure that reports are accurate and produced in line with agreed timescales; iii. Details of the types of reports that they are currently producing for other clients.	
			D10.7	Bidders must submit proposals setting out their approach to building services. This must include the following: i. Approach to commissioning new Plant and Equipment; ii. Details on how hardware and software licenses will be kept up to date; iii. Details on how to ensure all Equipment/ Assets used in the delivery of the Services are maintained properly and safe to use.	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
			D10.8	Bidders must submit proposals setting out their approach to statutory testing.	
D11. Acceptable approach to un-programmed maintenance	Pass / Fail	n/a	D11.1	Bidders must submit proposals setting out their approach to Un-programmed Maintenance Works. This must include the following: i. Meeting the relevant Rectification Period; and ii. Meeting the standards required.	
D12. Clarity, robustness and quality of approach to service elements including; utilities management and grounds maintenance services	Scored	2.50	D12.1	Bidders must submit proposals setting out their approach to service elements including utilities management and grounds maintenance. This must be provided as set out in D12.1 and D12.2 below. Bidders must submit a detailed methodology describing their approach to utilities management. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Proposals to ensure an adequate continuous	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				supply of energy is available; ii. Proposals for interface with the Board to ensure no interruptions in the supply of Utilities to the Facilities; iii. Proposals for procurement of Utilities for the Board which demonstrate value for money; iv. Maintenance approach to ensure all external Utility infrastructures within the Site is fully functional; v. Method of monitoring Utilities/carbon consumption and how usage will be analysed and used; vi. Sample Utility consumption report; vii. Proposals for improving energy/ carbon efficiency; and viii. Details on Utility energy profile audit.	
			D12.2	Bidder must submit proposals setting out their approach to grounds maintenance. For indicative purposes only it is anticipated that Bidders proposals may include (but should not necessarily be limited to) the following: i. Methodology for Grounds Maintenance Service and indicative programme for Planned Maintenance; and ii. Interface with third parties in ensuring a holistic approach to the safe use of the Campus access and egress routes.	
D13.	Pass / Fail	n/a	D13.1	Bidders must submit fully completed technical	To Pass, Bidders will be

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
Robustness of technical costs				cost proformas for the Services contained in the ITPD. All information requested must be provided. Bidders' completed proformas shall be provided in the same MS Excel format to allow direct comparison between bids.	required to demonstrate that their technical costs are robust for the scope of works to be delivered.
D14. Acceptable list of summary assumptions, clarifications and derogations	Not Scored	n/a	D14.1	Bidders must submit a consolidated schedule of all assumptions, clarifications and qualifications made in respect of their ITPD Bids. Whilst it is encouraged that such references are also made in the appropriate locations throughout Bidders' submissions, it is a mandatory requirement of the ITPD Submission that all such matters are also summarised in a single location.	
D15. Acceptable approach to mobilisation of Facilities Management services	Pass / Fail	n/a	D15.1	Bidders must submit proposals setting out their approach to mobilisation of facilities management services. For indicative purposes only it is anticipated that Bidders proposals must include (but should not necessarily be limited to) the following: i. A draft mobilisation plan using MS Project showing the activities to be performed, interdependencies between activities, the allocation of resources and where Board input is required; ii. Details of their proposed structuring and	

Quality Evaluation Criteria & Reference	Quality Evaluation Basis	Quality Evaluation Criteria Weighting	Submission Requirement Reference	Submission Requirement	Pass / Fail Guidance
				resourcing for mobilisation. This should include the names and CVs of the proposed mobilisation management team, indicating relevant experience; iii. Details of proposed communications with the Board during mobilisation. This shall propose appropriate interfaces and the frequency, nature and structure of meetings and reporting; iv. Approach to recruitment of staff, including as appropriate relevant security clearances; v. Detailed proposals for the establishment of the Helpdesk service that clearly demonstrates an understanding of the operational and technical interfaces with Board Services; vi. Proposals for installation and population of the CAFM system describing (as applicable) how installation shall be effected and how data will be migrated and tested; and vii. Method of vetting staff and acquiring the necessary and appropriate security clearances.	

Appendix A (iii) – Design Deliverables

Appendix A (iii)	**Design Deliverables** Bidders shall provide the following design submission requirements (as given in the Volume 1 of the ITPD): **1. Project Overview** 1.1 - Bid Drawings Schedule **2. Approach to Design & Construction - Architectural & Landscaping Design** 2.1 - Architectural Drawings Schedule 2.2 - Outline Architectural Specification supporting the design concept and setting out the proposed materials, finishes and components to be used. An Outline Specification shall be included for all components as detailed in the appropriate sub sections of the NBS Specification template. 2.3 - Development Control Plan 2.4 - 1:1000 Site Plan 2.5 - 1:500 Location/Site Plan 2.6 - 1:200 Site Layouts 2.7 - Landscaping Proposal Specifications 2.8 - Landscaping Proposal Drawings 2..9 - 1:200 Architectural general arrangement floor plans, sections and elevations 2.10 - 1:500 Architectural departmental adjacencies 2.11 - 1:200 Architectural elevations showing appropriately rendered:-fenestration, exterior materials, louvers and cast shadows 2.12 - 1:100 Architectural sections denoting floor to ceiling heights, suspended ceilings, raised access floors and floor levels 2.13 - 1:200 Departmental layouts to include a table setting out the Draft Schedule of Accommodation and Reference Design Schedule of Accommodation requirements and the Bidder's proposed schedule of accommodation and 1:50 room layouts. Schedule of Accommodation should include the following:

	Column A – areas for each room as stated in the Draft Schedule of Accommodation Column B – areas for each room as stated in the Reference Design Schedule of Accommodation Column C – as drawn Areas for each room proposed by the Bidder Column D – variance in areas between Column A and Column C (Column C minus Column A) Column E – where the areas in Column C are less than Column A, Bidders shall provide the variance in areas between Column C and B (Column C minus Column B) Column F – a comments Column to explain why the Board's Draft Schedule of Accommodation (Column A) cannot be achieved, noting the absolute minimum area the Board will accept is the area in the Reference Design Schedule of Accommodation (Column B) 2.14 – 1:200 Architectural drawings detailing (I) movement strategy, (ii) user flow diagrams at all principal circulation locations, (iii) movement interfaces and (iv) analysis of key nodal points 2.15 - 1:50 Architectural sections through Roof and Plant Room 2.16 - 1:200 Architectural proposals relative to the clinical requirements and infection control. 2.17 - 1:200 Architectural drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code. 2.18 - DDA Proposals including drawings, analysis and proposals. 2.19 –Drawings of the developed proposals suitable for use at post Preferred Bidder AEDET Review. 2.20 - 1:50 Architectural design response detailing interfaces with existing RIE 2.21 - 1:100 Architectural drawings and visualisations for the Pod proposals 2.22 – 1:20 coloured part architectural elevations and visualisations showing the Entrances **3. Approach to Design & Construction - Interior Design Proposals** 3.1 - Quality, appropriateness and proposals for RHSC interior design supported by architectural drawings of how the layout and the design proposed addresses:

	3.1.1 - Signage 3.1.2 - Patient, communal and public areas 3.1.3 - Appropriateness of facilities for users 3.2 - Loaded 1:50 room layout drawings for the RHSC indicating interior design proposals and demonstrating the coordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services. 3.3 - Quality, appropriateness and proposals for DCN interior design supported by architectural drawings of how the layout and the design proposed addresses: 3.3.1 - Signage 3.3.2 - Patient, communal and public areas 3.3.3 - Appropriateness of facilities for users 3.4 - Loaded 1:50 room layout drawings for the DCN indicating interior design proposals and demonstrating the coordinating aspects of all design disciplines, including floors, walls, ceilings, façade ventilation, mechanical and electrical services. 3.5 - Internal Perspectives at eye level that demonstrate form and setting of the key internal architectural areas, distinguishing or innovative features which demonstrate the design quality of the proposals 3.6 – Drawings and visualisations to demonstrate the integration of Artwork into the interior design concept. 3.7 – Sample boards to demonstrate the proposed interior finishes, colour and textures. Boards to include RHSC and DCN wards, the Pod, Atrium and CAMHS. **4. Approach to Design & Construction - Civil & Structural Proposals** 4.1 - Structural Drawings Schedule 4.2 - Civil Engineering Drawings Schedule 4.3 - Outline Structural Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. 4.4 - 1:500 Site plan layout indicating all manholes, gully positions for all site drainage 4.5 - 1:500 Site plan layout indicating all positions for surface water drainage

	4.6 - 1:500 Site plan layout indicating all positions for foul water drainage 4.7 - 1:500 Site plan layout indicating all positions for water mains 4.8 - 1:500 Site plan layout indicating all positions for roads, footpaths and finished levels 4.9 - 1:200 structural general arrangement foundation plans 4.10 - 1:200 structural general arrangement plans including floor and roof plans indicating all column and beam locations and sizes and all structural elements 4.11 - 1:100 structural sections through the building showing structural elements and service zones 4.12 - Confirmation of Geotechnical surveys, reports, studies undertaken in addition to the Geotechnical survey in the data room 4.13 - Confirmation of other site surveys, reports, studies undertaken in addition to the information already located in the data room 4.14 - Confirmation of any vibration monitoring / prevention proposals. 4.15 - 1:100 drawings for Helipad 4.16 - Outline Structural Specification supporting the Helipad design concept including proposed materials and components to be used. Outline Specification shall be included for all components in accordance with the NBS Specification **5**. **Mechanical & Electrical Services** 5.1 - Building services (mechanical) drawings schedule 5.2 - Building services (electrical) drawings schedule 5.3 - Outline Building services (mechanical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. 5.4 - Outline Building services (electrical) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. 5.5 - 1:500 site plan layout indicating all mechanical services , utilities supplies, natural gas mains, water supply and fire

	mains 5.6 - 1:500 site plan layout indicating all electrical utilities supplies, electrical mains, data and communications ducts 5.7 - 1:200 internal services concept schematic and zoning plans for both heating and ventilation; indicating of heating and ventilation in each room 5.8 - 1:200 mechanical general arrangement floor plans showing extent of services, distribution routes, mechanical plant acoustic treatment, plant areas, etc 5.9 - Mechanical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed : 5.9.1 - Plant strategy 5.9.2 - Distribution strategy 5.9.3 - Incoming gas and water services (including metering and sub-metering) 5.9.4 - Environmental design considerations 5.9.5 - Heat sources 5.9.6 - Natural Ventilation strategy 5.9.7 - Mechanical Ventilation strategy 5.9.8 - Mechanical cooling 5.9.9 - Mechanical air conditioning 5.9.10 - Specialist ventilation strategy 5.9.11 - Domestic hot and cold water system 5.9.12 - Space Heating System 5.9.13 - Space Cooling System 5.9.14 - Building Energy and Management System 5.9.15 - Dry Risers 5.9.16 - Soil and Waste System (above and underground)

	5.9.17 - Rainwater pipework and distribution 5.9.18 - Specialist drainage 5.9.19 - Sanitary ware and appliances 5.9.20 - Dry Risers 5.9.21 - Natural Gas Installations including Laboratory Gases 5.9.22 - Medical Gas Installations 5.9.23 – Pneumatic Tube System 5.9.24 - Mechanical Commissioning Strategy 5.10 - 1:200 electrical general arrangement floor plans showing extent of services, distribution routes, plant areas, etc 5.11 - Electrical schematic layouts and report (co-ordinated and consistent with all drawings and design information contained within the Bid Submission Requirements) denoting details and extent of proposed: 5.11.1 - Incoming electrical services 5.11.2 – Metering and Sub-metering 5.11.3 - Mains distribution including standby generation facilities 5.11.4 - Earthing, Bonding and Lightning protection 5.11.5 - Containment systems 5.11.6 - Small power installation 5.11.7 – Lighting and Emergency Lighting 5.11.8 - Specialist lighting 5.11.9 - Lighting control systems 5.11.10 - Uninterruptible Power Supplies 5.11.11 - Telecommunications and I.T. 5.11.12 - Nurse Call System 5.11.13 - Fire Detection and Suppression System

	5.11.14 - Staff Attack / Induction Loop 5.11.15 - Security system 5.11.16 - Access Control system 5.11.17 - CCTV system 5.11.18 - Public address system 5.11.19 - Digital TV and Radio Installation 5.11.20 – Patient / Equipment Tagging 5.11.21 – Induction Loop 5.11.22 – Bedhead Services 5.11.23 - Electrical Commissioning Strategy 5.12 - 1:50 mechanical and electrical services sections to illustrate use of ceilings, natural daylight, ventilation strategies, cooling and heating strategies, lighting strategy, acoustic strategy, specialist installations strategy, services concept **6. Lift Provisions** 6.1 - Lift and Escalator Drawings Schedule 6.2 - Outline Building Services (lift and escalator provision) Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. Traffic flow analysis to be included. **7. Environmental Services and Energy Management Strategy** 7.1 - Natural Ventilation drawings and proposals **8. Fire Strategy** 8.1 - 1:200 Fire Strategy drawings in support of fire engineering proposals and how the proposals support the design concept and meet the requirements of the relevant code.

	8.2 - Outline Fire Strategy Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. **9. Security Strategy** 9.1- 1:200 Security drawings in support of security strategy and how the security proposals support the design concept 9.2 - Outline Security Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. **10. Acoustic Strategy** 10.1 - Outline Acoustic Specification supporting the design concept including proposed materials and components to be used. Outline Specification shall be included for all components as detailed in the appropriate sub section of the NBS Specification template. **11. Adaptability, Flexibility and Expandability Strategy** 11.1 - Architectural adaptability drawings in support of the overall adaptability strategy. 11.2 - Strategy and drawings showing how the design of the new RHSC and DCN demonstrates innovation, flexibility, consideration of whole life design and is capable of absorbing reasonable change in the future without excessive public, patient or clinical disruption.

Appendix A (iv) – Specifications

Appendix A (iv)	**Specifications** Bidders shall provide specific details on their proposed suite of specifications for the Works. These details shall include, but not be limited to the following: i. The industry recognised specifications proposed, with specific commentary on the extent of application of those to each main discipline (civil / structural, M&E, architectural etc); ii. Inclusion of either Project specific specifications for each main discipline, or example specifications used on other projects that are representative of the level of detail and clearly demonstrate the proposed level of quality that will apply to this scheme: and iii. A statement confirming that all such specifications (including fully completed framework specifications) will be fully drafted by the Preferred Bidder prior to Financial Close. For the avoidance of doubt, the Board is expecting Bidders to adopt both general, and where required, specific specifications to cover all components, materials, workmanship etc. For example the NBS framework could be utilised for mainstream building elements, however may need to be supplemented by specific standards and specifications relevant to particular Bidder proposals (e.g. piling, steelwork erection, infrastructure works).

Appendix A (v) – Technical Cost Proformas

[See separate Excel file]

Appendix A (vi) – Change Protocol

Annex 1 to Appendix A (vi) – Description of Potential Equalisation Adjustment for Change Protocol

Bidders to note the following points in relation to the Appendices to Schedule Part 16 Change Protocol;

1. Notional fixed quantities have been applied to the attached Appendices of Schedule Part 16 - Change Protocol,
2. The notional fixed quantities will be applied automatically to the bidder's rates to obtain the annual cost of the bidders Appendices of Schedule Part 16 - Change Protocol submissions,
3. As described at paragraph 5.7.1 (c) (Economic Cost) of Volume 1 of the ITPD, the Board will apply the annual cost over the 25 year concession period.
4. A probability factor will be applied to the annual cost of each Bidder's proposals, with the probability being a maximum of 20% in any year, to reflect the likelihood that the full value of change will not apply to each and every year but will vary across the contract period. With respect to the proposed probability factor, the Board confirms that the same factors will be applied to all three Bidder.
5. The resulting risk adjusted annual values will be discounted by 3.5% (real) to derive a NPV that will form the Equalisation Adjustment to be applied.
6. The notional quantities will be removed prior to Financial Close and will not form part of the catalogue for the operational period and as such should not be assumed to be the level of works required during the contract period.
7. When completing Appendix 1 Part 1 bidders should ensure that the Timescales section of the Appendix are completed with reference to the drafting in Schedule part 16.
8. The population of these catalogues is for evaluation purposes only through a potential Equalisation Adjustment, which shall be calculated pursuant to the above description. At the preferred bidder stage the catalogue will be developed further to reflect the full range of specifications within the preferred bidders design, any additional rates will be benchmarked against the bidders original rates proposed at Final Tender.
9. It is recognised that each Bidder will be applying different product solutions and it is for the Bidder to decide the appropriate product(s) from their catalogue to be inserted into the change workbook which is only to be utilised for evaluation purposes. This should be based on bidders' experience of the most likely product(s) to be required under change control noting;

Appendix 2, Part 1 – column for Bidder Priced Product Description, to allow bidders to specify the product they have used for pricing each line item within the table.

Appendix 2, Part 2 – Revised the responsible party for a number of items to correctly reflect the costing requirements for lifecycle works.

Annex 2 to Appendix A (vi) – Schedule Part 16 Change Protocol Proformas

[See separate Excel file]

Appendix B (i) – Financial Submission Requirements

Bidders should provide their responses to the questions below in a separate document labelled 'Financial Submission'. Where possible, the responses should be contained in a single document, with the use of separate annex documents avoided if it is possible to include the relevant information in the main text without causing difficulties in formatting or document size.

Ref	Required Response
F1	**Potential Funders** Bidders should provide details of funders that the Bidder would intend to involve in a Preferred Bidder Funding Competition. This shortlist should include as wide a range of potential funding solutions as is practical and should include capital markets solutions. Bidders should submit summary details of the funding terms being proposed by these funders within Final Tenders for information purposes only. Letters of support should be submitted from funders to be included in the funding competition.
F2	**Funding Competition Methodology** The Bidder's response should set out how value for money will be secured between funding options and/or funding providers, during the Preferred Bidder Funding Competition. This should take the form of a proposed Funding Competition methodology, to be based on the protocol set out in Appendix B6 below, that will be applied in order to secure the required funding after Preferred Bidder appointment, including timescales that will apply.
F3	**Programme to Financial Close** The Bidder should describe any additional funding-specific actions or issues between Tender submission and Financial Close over and above those described in the answer to question B15. Except where already provided in the response to question B15, evidence must be provided that potential providers of finance to Project Co have accepted the proposed timetable in principle and that adequate resource will be available to ensure the timetable is met. Where possible, and again except where already covered in the response to question B15, Bidders should provide a clear statement on the level of approval process and timescale that will be required from the respective lending organisations.
F4	**Exclusivity** Bidders should provide a statement confirming that they have not entered/will not enter into any exclusivity arrangements with funders before Preferred Bidder appointment.
F5	**Risk Capital Information** The Bidder must submit the following information for each type of risk capital to be raised: • Identity of the investors • Amounts to be subscribed by each investor and the timing thereof • Terms and conditions of the subscription including return requirements and/or coupon rights (shareholder agreement or detailed term sheet) • Mezzanine interest rates if applicable • Terms and any other agreements between the Investors in their capacity as investors in the Project

Ref	Required Response
	Co • Any other rights attaching to this subscription • An undertaking that no additional margins or charges will apply that have not already been disclosed and included in the Financial Model • The length of time each class of risk capital will remain in the project vehicle • The extent to which the funds are committed. The Bidder is required to produce the strongest form of commitment possible. The level of commitment should be demonstrated through the provision of Board minutes or letters of support from the sponsors committing to subscribe subordinated debt on the terms identified above.
F6	**Due Diligence** The Bidder should indicate the extent of the funder due diligence that has been carried out to date and the overall scope and timetable of funder due diligence up to Financial Close. In addition to the provider of senior debt, the response should cover due diligence required by any third party provider of subordinated debt funds. Bidders should provide completed versions of the diligence certification appended to this document at Appendix B3 below for legal and technical diligence advisors, to the effect that they have carried out work as if acting on behalf of funders and have raised all of the issues that they would normally expect funders to have raised in assessing the Bidders' proposals. Bidders should submit any diligence reports available in support of the certification. A model audit is not required at this stage. However, Bidders should indicate whether a model auditor has been appointed and if so, what scope of services has been agreed. Bidders should indicate their acceptance of the risk that the model audit may prove the Annual Service Payment to be incorrect, and that they may not pass any additional costs on to the Board.
F7	**Security Package** Bidders should provide full details of the security required to support their proposals, including parent company guarantees, bonding, letters of credit, liquidated damages and liability caps, and set out full details of the pricing assumed for such a security package. This should be done by completing the table included in Appendix B5. Bidders should confirm that they will bear the risk of pricing of the security package relating to senior debt as contained with the Bidder's submitted Financial Model. Bidders should describe the process undertaken to establish the security package and pricing proposed and set out how they have satisfied themselves that they are able to bear the risk of any change in pricing. **Security Package for Capital Market Solution** Bidders should provide detailed pricing information for the security package required for a capital market solution, based on discussions with potential providers of funding from this source and clearly demonstrating the level of internal approval already obtained or required to secure such pricing. Bidders should complete the table included at Appendix B5. Evidence to support the pricing presented, such as letters from brokers or bondsmen, should be provided in support of this information. Bidders should describe how pricing of the package might change if the sizing of the security package alters, for example, if a 15% performance bond is required. Bidders should clearly set out in their proposals the trigger point for any change in junior debt structure or timing that may come as a result of the use of a capital funded solution. For example, Bidders should indicate the tolerance within which any change in the timing, structure or amount of junior debt would allow that Bidder to keep to its final tender IRR.

Ref	Required Response
	Bidders should identify any security package requirements that would be unacceptable.
F8	**Financial Model** The Bidder should provide a narrative statement describing the key outputs of the Financial Model, including Annual Service Payment (both real and nominal in the first full year of operations); NPV of ASP and surpluses, summary of pass-through costs, sources and uses of funds and key assumptions. The Bidder is required to submit the Financial Model from which the key output information is derived which complies with the authority term sheet in Appendix B4 and the key assumption and format requirements set out in section 3.9 of IFT Volume 1.
F9	**Databook** The Bidder is required to provide a databook and user guide supporting the Financial Model for the Financial Submission, as set out in section 3.9 of IFT Volume 1.
F10	**Proformas** The proforma financial information requirements are included in Appendix B2 below. The information is the minimum requirement. Where the Bidder needs to provide additional information in order to provide a higher level of understanding of the individual components of the submission such additional information should be provided.
F11	**Tax and Accounting Risk** The Bidder should provide confirmation that they will underwrite and accept all risk relating to the tax and accounting adopted within the Financial Model.
F12	**Advisor Opinion** Bidders should submit a formal letter from their tax advisers or suitably qualified professional from within the Bidder's own organisation confirming that in their opinion the proposed tax treatment (including corporation tax, treatment of surpluses, VAT and SDLT) is valid and that any required accounting treatments underpinning the tax treatment would be within the appropriate accounting standards. This opinion should set out the basis for the treatments adopted, and identify any risks associated with it.
F13	**Detailed Tax Assumptions** Bidders should identify assumptions in relation to taxation including the following: • Bidders must specify the corporation tax rates assumed, including any marginal relief (if appropriate) and confirm that consideration has been given to changes to the standard rate of corporation tax included in the Finance Act 2011 and announcements in the 2012 Autumn Statement. • Bidders should specify the assumptions made in respect of the commencement and cessation of trade for tax purposes, including any tax relief assumed for pre-trading interest costs. • Bidders should specify the assumptions made in respect of deductibility or non-deductibility of revenue costs, including in respect of construction costs, transaction costs, such as bid costs, development costs, planning costs and legal fees. • Bidders are required to specify the assumptions made in respect of the tax treatment of capital expenditure, (including in respect of lifecycle costs and any intangible fixed assets) including amounts of expenditure allocated to the different capital allowance pools, amounts assumed to be non-qualifying for capital allowances, the rate of writing down allowance claimed and details of any capital allowances disclaimed.

Ref	Required Response
	• Bidders are required to categorise taxable profits by type, such as trading profits, interest, and other non-trading profits or losses. The categories of taxable income should be appropriately ring-fenced (e.g. when carrying forward losses). • Bidders must specify any assumptions made in respect of the tax treatment of capitalised interest. • The application of transfer pricing legislation in the UK can have implications for PPP/PFI projects, particularly around the tax treatment of subordinated debt and corporate debt interest charges. Bidders should consider the implications of this aspect of corporation tax on their proposals and confirm that any such implications have been considered. • Bidders should consider the potential implications of the worldwide debt cap in respect of the deductibility of interest costs and confirm that any such implications have been taken into account in pricing the project. • Bidders should provide a statement setting out their assumptions in respect of the tax treatment of any other income or capital contributions received. • Bidders should provide a statement setting out any tax assumptions made concerning timing of payments of corporation tax. • Bidders must make their own decisions as to whether or not to seek advanced tax clearance from HMRC for any aspect of the proposed treatment. If such clearance is sought, Bidders must attach the appropriate correspondence to their submission. If the Bidder is relying on an advanced clearance from HMRC, this will need to be provided before contract signature and Financial Close. • Bidders are required to state any VAT assumptions made and the basis for these assumptions (including VAT implications in relation to land transactions where applicable). • Bidders should consider the implications of SDLT on their proposals if relevant. Any SDLT costs should be included within the Financial Model along with an accompanying statement explaining how it is calculated.
F14	**Bid Validity** Bidders should confirm that they will maintain underlying construction, operating, FM and Project Co costs for a period of three months from the target Financial Close date with no adjustment for inflation. Bidders should confirm that only capital, lifecycle and facilities management costs will increase post-validity period and that they will use all reasonable endeavours to mitigate the impact of any cost increases post validity period. Bidders should provide specific cell references in the Financial Model that define which costs will increase post validity period. Bidders should specify which cost index or indices they require costs to be inflated in the post validity period. Note should be taken of the indexation regime that will be applied to Scottish Government support in relation to the construction cost cap.
F15	**Surplus Treatment** Bidders should describe in detail the tax and accounting treatment applied to any surpluses in the Financial Model. Bidders should also set out the approach taken to the creation of any cash buffer, with reference to paragraph 3.8.6 of this IFT document.
F16	**Hedging** The Bidder must set out clearly its proposal in relation to financial risk, Financial Close and any hedging arrangements required to support the project. The following details should be provided:

Ref	Required Response
	• The manner in which the Bidder will address the risk of future movements on interest rates, including a full description of its interest rate hedging to be applied. • The time period over which hedges are expected to be in place. • Details of any financial instruments that will be used to provide protection against interest rate movements and the cost/effect of such protection should be reflected in the Financial Model. • Confirmation that the Project Co will bear all interest rate risk in respect of its borrowings once Financial Close is achieved. • Confirmation that the Bidder (and subsequently Project Co) will bear all foreign exchange risk. • The manner in which the Bidder will address the risk of future movements in the Retail Price Index (RPI). The Board does not expect that any Bidder's funding solution will require the use of RPI hedging instruments. The Financial Model submission should clearly demonstrate the proportion of costs that are fixed, the proportion subject to inflation and the basis upon which the Bidder has set the proportion of Annual Service Payment that will be subject to inflation. • Confirmation of the acceptance of the principle of benchmarking of hedging instruments (including GICs where appropriate) at Financial Close. • The Bidder should identify the broad approach they will utilise in setting the underlying funding rate at Financial Close ensuring transparency and best value for The Board.
F17	**Payment Mechanism** The Bidder should confirm, in relation to the payment mechanism schedule and thresholds for warning notices and termination in clauses 24 and 41, that: • the sponsors support the bid position • the bid position is acceptable to FM sub-contractors • appointed funder technical advisors have reviewed the bid position and have included all relevant comments in their due diligence report • the Bidder will work with the Board in agreeing the bid position with funders appointed as a result of the funding competition

Appendix B (ii) – Financial Proformas

[See separate Excel file]

Appendix B (iii) – Due Diligence Certification

Part 1 - Funder's Technical Adviser: Draft Certificate

As per Question F6 of the Financial Submission Requirements, The Board requires that this certificate is signed by the technical adviser who has carried out the funder's technical due diligence exercise for the purposes of the Final Tender.

We were appointed by [Insert name of Bidder] to carry out funder due diligence on the Final Tender Submission ("Funder's Technical Due Diligence").

We were appointed to undertake the following scope of work and confirm that this has been completed.

a) [Insert Scope of work here]

We confirm that this is the level of technical due diligence we would expect to carry out on behalf of a funder for a project of this type at this stage.

We confirm that we have undertaken due diligence on the calibration of the Payment Mechanism and that any matters which we have raised as a result of the due diligence we have carried out have been raised and discussed with the Board during the Dialogue Period and have been included within [Insert name of Bidder]'s Final Tender submission.

Approved Signatory of technical adviser: _____

Name of company: _____

Date: _____

Part 2 - Funder's Legal Adviser: Draft Certificate

As per Question F6 of the Financial Submission Requirements, The Board requires that this certificate is signed by the legal adviser who has carried out the funder's technical due diligence exercise for the purposes of the Final Tender.

We were appointed by [Insert name of Final Bidder] to carry out funder due diligence on the Final Tender Submission ("Funder's legal Due Diligence").

We were appointed to undertake the following scope of work and confirm that this has been completed.

a) [Insert Scope of work here]

We confirm that this is the level of legal due diligence we would expect to carry out on behalf of a funder for a project of this type at this stage.

We confirm that any matters which we have raised as a result of the funder due diligence we have carried out have been raised and discussed with the Board during dialogue and are included within [Insert name of Final Bidder]'s Final Tender submission.

Approved Signatory of legal adviser: _____

Name of company: _____

Date: _____

Appendix B (iv) – Term Sheets

	Commercial Bank(s)	**EIB**
Senior Term Loan	50% of the Senior Funding Requirement.	50% of the Senior Funding Requirement up to a maximum of £98.81 million.
Gearing	To be no more than 90% at Financial Close.	
Debt tail	2 years	
Repayment	The Senior Term Loan shall be repaid in accordance with the agreed repayment schedule reflected in the Base Case Financial Model and the Facility Agreement, which will be a 6-monthly sculpted schedule.	
Facility Margins	LIBOR assumed to be 4.00% Construction: LIBOR plus 2.80% p.a. Operations Yrs 1 - 8: LIBOR plus 2.50% Operations Yrs 9 - 15: LIBOR plus 2.80% Operations Yrs 16 - 20: LIBOR plus 3.00% Operations Yrs 21+: LIBOR plus 3.20% Equity Bridge (if in use): 1.75%	5.50% p.a. throughout.
Hedging Credit Spread	Interest rate swap: 0.28%	n/a
MLAs	2 bps	n/a
Arrangement Fee	2.30 %	1.00%
Commitment Fee	40% of the applicable margin	45bps
Agency Fee	£35,000 p.a. indexed	n/a
Cover Ratios	Base Case Minimum ADSCR: 1.20 Base Case Average ADSCR: 1.20 Minimum LLCR: 1.20 Lock Up ADSCR: 1.10 Lock Up LLCR: 1.15 Default Minimum ADSCR: 1.05 Default Minimum LLCR: 1.10	
Reserve Accounts	A Debt Service Reserve Account to cover 6 months debt service. A Maintenance Reserve Account to provide a 3 year look-forward	

	reserve mechanism on a 100%/66%/33% basis.

Project Ratios – Definitions

For the purpose of this Term Sheet, cover ratios shall be defined as follows:

Annual Debt Service Cover Ratio (ADSCR) - (Backward and Forward looking)

The ADSCR is calculated looking back 12 months from the testing date and looking forward 12 months from the testing date and is calculated as the Available Cash Flow **divided by** the Debt Repayments.

Available Cash Flow comprises:

Include	**Deduct**
Unitary Payment	Service provider operating costs
Current account balance	SPV operating expenditure
Receipt of third party revenue	Life-cycle costs
Cash receipts from sale of tax losses	Taxes
Positive changes in working capital	Negative changes in working capital
Releases from Reserve Account(s)	Payments to Reserve Account(s)
Interest received on cash deposits	

Debt Repayment comprises:

Senior debt principal repayments plus senior debt interest payments for the 12 months prior to the testing date for a backward looking ADSCR and 12months from the testing date for a forward looking ADSCR.

Loan Life Cover Ratio

Net present value of forecast available cash from the testing date until the final repayment date of the senior debt discounted to the testing date at the weight average cost of the senior debt plus all cash balances **divided by** total senior debt outstanding at the calculation date.

Европейска инвестиционна банка
Evropská investiční banka
Den Europæiske Investeringsbank
Europäische Investitionsbank
Euroopa Investeerimispank
Ευρωπαϊκή Τράπεζα Επενδύσεων
European Investment Bank
Banco Europeo de Inversiones
Banque européenne d'investissement
Banca europea per gli investimenti
Eiropas Investīciju banka
Europos investicijų bankas
Európai Beruházási Bank
Bank Ewropew tal-Investiment
Europese Investeringsbank
Europejski Bank Inwestycyjny
Banco Europeu de Investimento
Banca Europeană de Investiții
Európska investičná banka
Evropska investicijska banka
Euroopan investointipankki
Europeiska investeringsbanken

NHS Lothian
Waverley Gate
2-4 Waterloo Place
Edinburgh
EH1 3EG
UK

For the attention of: Susan Goldsmith, Director of Finance

By courier

Luxembourg, 04 December 2013 OPS A/WE-2/2013-0200/FR/vdb Ref.:

Royal Hospital for Sick Children (RHSC), Child and Adolescent Mental Health Service (CAMHS) and the Department of Clinical Neurosciences (DCN).

Dear Madam,

The European Investment Bank ("**EIB**") is pleased to respond to the request of the NHS Lothian (the "**Authority**") to write in support of the financing proposal for the Royal Hospital for Sick Children (RHSC), Child and Adolescent Mental Health Service (CAMHS) and the Department of Clinical Neurosciences (DCN), (the "**Project**").

The EIB's Board of Directors have approved in principle a loan to the Project for an amount of up to GBP 98.81 million. This letter does not represent a binding commitment by EIB to provide financing to the Authority, or the Project, and any financing and participation by EIB will be subject to satisfactory due diligence, terms and documentation, including but not limited to the various conditions referred to below.

The commitment to fund the Project would be made at financial close and before providing such commitment EIB would need to be satisfied that various conditions have been fulfilled including, inter alia:

(i) we have completed satisfactory due diligence in relation to the Project and that the structure and terms of all project and finance documentation are satisfactory to us;
(ii) we have agreed the commercial arrangements and documentation with the preferred bidder, the sponsors/contractors and the other debt providers;
(iii) the proposed loan achieves an acceptable internal loan grading and risk profile;
(iv) that we have received the necessary internal credit and other approvals; and

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(v) the relevant conditions precedent have been fulfilled to EIB's satisfaction.

This letter shall not create any legal relations.

More information on these projects can be found on www.eib.org

EIB looks forward to working with the Authority on the implementation of this Project.

This letter shall be governed by and construed in accordance with English law.

Yours faithfully,

EUROPEAN INVESTMENT BANK

[redacted] [redacted]

P. Jacobs F. Rizzi

Appendix B (v) – Security Package Pricing

	Bank/EIB Solution	Wrapped Bond	Unwrapped Bond
Liability Cap	Details to be provided	50%	50%
Letter of Credit	Amount required Institution providing the Letter of Credit and associated rating Annual cost (nominal) in % terms Resulting total cost as used in financial model	10 % Letter of Credit from institution with minimum rating from S&P of A-. Annual cost (nominal) in % terms Resulting total cost	20 % Letter of Credit from institution with minimum rating from S&P of A-. Annual cost (nominal) in % terms Resulting total cost
Performance Bond	Amount of Performance Bond required Institution providing the Performance Bond and associated rating Annual cost (nominal) Total cost	10 % Liquid performance bond: Annual cost (nominal) Total cost	10 % Liquid performance bond: Annual cost (nominal) Total cost
Parent Company Guarantees	Details to be provided		
Equity bridge loan	If in use, details of security package requirements to be provided		
Other	Please detail any other Bidder-specific lender security package requirements (during construction or operations)	Please detail any other Bidder-specific lender security package requirements (during construction or operations)	Please detail any other Bidder-specific lender security package requirements (during construction or operations)
Rating Agency costs	n/a	Upfront and annual monitoring costs to be provided (for information only)	Upfront and annual monitoring costs to be provided (for information only)

Appendix B (vi) – Funding Competition Protocol

Objectives of the Funding Competition

The primary objective of the Funding Competition is to identify competitive proposals for senior debt funding for the Project which:

- are firm, unqualified and deliverable;
- enable the required amount of senior debt to be raised;
- reduce the NPV of the Annual Service Payment as proposed in the Preferred Bidder's Final Tender Financial Model ('FT Model');
- are deliverable by the target Financial Close date 1 October 2014;
- do not require any renegotiation of any Project documents or any alteration of the risk allocation as agreed between the Board and Preferred Bidder.

Process

Delivery of senior debt funding is the responsibility of the Preferred Bidder. This includes:

- management of the Funding Competition process and of the funder Due Diligence process;
- production of all materials required and covering all costs incurred in the process;
- meeting the timescales that will be set out in the Preferred Bidder letter.

The Funding Competition will be run by the Preferred Bidder, subject to advance approval from the Board, SFT and their financial advisors in respect of key issues including:

- timing of the competition;
- developing the shortlist of prospective funders to be approached;
- the documentation issued to prospective funders;
- evaluation criteria;
- final selection of bank versus any other (e.g. public bond) structure.

Any difference in cost to the account of the Preferred Bidder arising from the final selection of funding route is the Preferred Bidder's risk, subject to the risk allocation arrangements set out in the IFT. Such costs will not be amended following selection of Preferred Bidder and final selection of preferred funder(s).

Offers solicited from prospective senior debt funders must at a minimum:

- be deliverable - final submissions from funders must have credit committee approval providing an unambiguous commitment to fund;
- be sufficient to cover the full required senior debt sum;
- set out their proposals for all key terms such as credit margins, fees, cover ratios, and interest rate hedging;
- accept the principles of public sector benchmarking of derivatives pricing at Financial Close, or competing any GICs at Financial Close in the case of a bond solution;
- accept the Project Agreement, associated Schedules and all other Project Documents in full, preserving the risk allocation set out in the Final Tender. Any funder seeking to amend these Documents may be excluded from the Competition;
- confirm whether the Preferred Bidder's security package proposals (including proposed security provider(s)) are acceptable;
- confirm their rating requirements for the Account Bank;

- confirm whether their offer is a "bank" or "bond" solution; that they accept the standard form compensation on termination provisions for "bank" or "bond" (as applicable); that they accept calculation of breakage costs on termination on the basis of readily identifiable and objective benchmarks;
- demonstrate commitment to the proposed financial close date;
- confirm whether the Preferred Bidder's security package proposals (including proposed security provider(s)) are acceptable;
- confirm their rating requirements for the Account Bank;
- confirm whether their offer is a "bank" or "bond" solution; that they accept the standard form compensation on termination provisions for "bank" or "bond" (as applicable); that they accept calculation of breakage costs on termination on the basis of readily identifiable and objective benchmarks;
- reflect the detailed funder's due diligence undertaken and accept novation of the funder's advisors appointed by the Preferred Bidder; and
- demonstrate commitment to the proposed financial close date.

The Board will not accept significant changes to the Project Agreement, associated Schedules or other Project Documents as a result of the funding competition. To the extent that any such change has a negative impact on the Project it will be an equity risk rather than a risk for the Board. The Board therefore expects the Preferred Bidder to develop the Information Memorandum to a sufficient level of detail to make the above terms for participation clear.

If financing is expected to come from a club of funders, the following should be asked of prospective funders in order to assess the deliverability of any club solution:

- whether, if part of a club, they would accept one funder in the club taking on the role of Agent/Security Trustee (and whether they would be willing to / require to assume that role); and
- whether, if part of a club, they would accept the appointment of one funder to represent the club on technical issues and one funder to represent the club on legal issues (and whether they would be willing to / require to assume that role).

The Preferred Bidder will discuss Funding Competition responses received with the Board to allow financial modelling of responses to be carried out on an agreed basis. The Preferred Bidder will model all Funding Competition responses agreed with the Board as set out in the Funding Competition Methodology. The Preferred Bidder will prepare a summary report demonstrating the impact of each funding proposal on the Annual Service Payment and the associated NPV versus those in the FT Model as well as a tabular summary of pricing and key terms and conditions for each proposal.

Financial Model

The FT Model based on the Board's Final Tender term sheet provided in this document will be provided to prospective funders by the Preferred Bidder. Funders will be requested to improve on these terms, subject to there being no change in the Board's risk profile. If prospective funders feel that a revised Model reflecting an alternative structure is necessary for them to perform their assessment of the Project then they should outline their rationale to enable the Preferred Bidder and Board to consider the request and agree a new version.

The junior debt coupon included in the FT Model will not increase regardless of any change in rates or terms resulting from the Funding Competition.

The Board will take the risk up to Financial Close on movements to underlying LIBOR/ reference gilt/GIC rates or bond margin.

Benefits arising from the Funding Competition and any improvements up to and including Financial

Close will be passed in full to the Board, including improvements in bank terms such as fees, costs, margins, gearing, cover ratios and increase in loan tenor. Benefits from any incorporation of EIB finance are wholly for the account of the Board.

Involvement of the Board and SFT

To enable agreement and decision-making throughout the process, the Preferred Bidder will chair a funding competition "working group" which will include a representative from each of the Board, its financial advisers and SFT.

Consent of SFT will be required throughout, including:

- agreement of the shortlist of funders;
- agreement of the contents of the Information Memorandum;
- final selection of the funding route and final selection of the preferred funder(s).

All correspondence with funders in competition will be recorded in writing and available to all procuring parties (i.e. the Board, the preferred bidder, SFT and advisors).

The Board, its advisors and SFT retain the right to attend all significant meetings held with potential funders. A minimum of 48 hours' notice of such meetings must therefore be given to the Board including a detailed agenda for such meetings.

Regular summaries of significant communications pertaining to the competition and the position of any negotiations are to be provided in advance of each meeting.

The competition will be run on a transparent, open book basis. The Preferred Bidder will allow the Board, its advisors and SFT full access to the responses received from funders and all analysis (including financial modelling produced by the Preferred Bidder or its advisers) to assess and compare those responses. The Preferred Bidder agrees to run any additional scenarios or sensitivities reasonably requested by the Board, its advisors or SFT. The list of sensitivities will, as far as possible, be agreed in advance of the competition.

Appendix C (i) – Not Used

Appendix C (ii) – Legal Submission Requirements and Evaluation

1. Prohibited Bidder Amendments

1.1 Bidders will not be permitted to include in their Final Tender (Bidder Specific) NPD Project Agreement or any part of their Final Tender Submission:

1.1.1 amendments, caveats and/or qualifications which have not previously been raised with the Board and/or its advisers during the Dialogue Period (other than drafting that is necessarily consequential on, or necessary to implement, amendments which have been so raised); or

1.1.2 amendments, caveats and/or qualifications which have been raised with the Board during Dialogue Period but rejected by the SFT,

such amendments being defined as "**Prohibited Bidder Amendments**".

1.2 The Board shall be entitled to reject in its absolute discretion any Prohibited Bidder Amendments included within the Final Tender (Bidder Specific) NPD Project Agreement or Final Tender Submission which forms part of a Bidder's submission for the Final Tender**.**

2. Final Tender

2.1 Overview

Unless a Bidder is notified otherwise , the legal submission requirements for the Final Tender shall be as set out in paragraph 2.2 (NPD Project Agreement) and 2.3 (Additional Documentation) below.

2.2 NPD Project Agreement Submission

2.2.1 Bidders should note that a NPD Project Agreement specific to each Bidder (**Final Tender (Bidder Specific) NPD Project Agreement**) shall be issued to each Bidder by the Board in the Invitation to Submit a Final Tender.

2.2.2 The Final Tender (Bidder Specific) NPD Project shall be based upon:

(a) the respective NPD Project Agreement submitted by Bidders as part of the Draft Final Tender ; and

(b) any agreed issues resolved in the final Dialogue Meeting,

and Bidders shall be required to submit their Final Tenders on the basis of the terms of the Final Tender (Bidder Specific) NPD Project Agreements, without further amendment (subject to paragraph 2.4.1(a)(ii)) (the "**NPD Project Agreement Submission**"). A letter from each Bidder's consortium confirming that their Final Tender (Bidder Specific) NPD Project Agreement is acceptable to them shall suffice for the purposes of the NPD Project Agreement Submission. Please also note the additional Board requirement to complete the certificate set out in Appendix K (Acceptance of Contractual Terms) by the consortium members (including sub-contractors).

2.2.3 Subject to paragraph 2.4.1(a)(ii) any amendment to the Final Tender (Bidder Specific) NPD Project Agreement may result in a Bidder's entire Final Tender being rejected by the Board without further evaluation.

2.3 Additional Documentation Submission

2.3.1 Subject to paragraph 2.3.2, the following documentation (**the "Additional Documentation Submission**") shall also require to be submitted by Bidders as part of their Final Tender:

(a) Contractual matrix/diagram, showing clearly the relationships between the Bidder and its supply chain including shareholders, junior debt providers, funders and sub-contractors. The diagram should provide details of all collateral warranties, direct agreements, any applicable guarantees and who the design consultants shall be which will be granted to the Board and the circumstances in which the protection offered by the collateral warranties and direct agreements will be available;

(b) Fully developed, signed heads of terms for each of the Contractor, Services Provider and any relevant Key Sub-contractors. The Board will expect to see details such as caps on liability, liquidated damages and indemnities covered in these heads of terms;

(c) Final version of proposed parent company guarantees; and

(d) Final version of the NPD Articles of Association.

2.3.2 The documentation referred to above in paragraph 2.3.1 above, shall be based upon:

(a) such similar documentation as was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and

(b) any agreed issues resolved in the final Dialogue Meeting,

and Bidders shall be required to submit their Final Tenders on the basis of the terms of this paragraph, without further amendment.

2.4 Evaluation of Final Tender

2.4.1 The legal submission which forms part of the Final Tender shall be evaluated as follows:

(a) NPD Project Agreement

Subject to paragraph 2.2.3, the NPD Project Agreement shall be evaluated in accordance with the following:

(i) Pass/Fail: Subject to paragraph 2.4.1 (a)(ii) below, Bidders shall be awarded a pass if they accept the Final Tender (Bidder Specific) Project Agreement. Bidders shall be awarded a fail if they do not accept the Final Tender (Bidder Specific) Project Agreement;

(ii) If a pass is received by Bidders in respect of the Final Tender (Bidder Specific) Project Agreement, the provisions of paragraph 5.7.1(d) (Quantifiable Bidder Amendments) of Volume 1 of the ITPD shall be applied. The Quantifiable Bidder Amendments that shall be applied to a Bidder's Provisional Economic Cost Score shall be those Quantifiable Bidder Amendments notified by the Board to Bidders

during the Dialogue Period. Bidders can choose not to include amendments which result in Quantifiable Bidders Amendments within the Final Tender (Bidder Specific) NPD Project Agreement, as part of their Final Tender. The Quantifiable Bidder Amendments to be applied to the Provisional Economic Cost Score shall then be reduced accordingly by the Board.

(b) Additional Documentation Submission

Subject to paragraph 2.3.3, the Additional Documentation Submission referred to in paragraph 2.3.1 above shall be evaluated in accordance with the following:

(i) Pass: Bidders shall be awarded a pass if they submit as part of their legal submission for their Final Tender the documentation referred to above in paragraph 2.3.1 above, which shall be based upon:

(A) such similar documentation as was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and

(B) any agreed issues resolved in the final Dialogue Meeting,

(ii) Fail: Bidders shall be awarded a fail if they submit as part of their legal submission for their Final Tender the documentation referred to above in paragraph 2.3.1 above which is not based upon:

(A) such similar documentation was submitted by respective Bidders as part of their legal submission for the Draft Final Tender; and

(B) any agreed issues resolved in the final Dialogue Meeting.

Appendix C (iii) – Not Used

Appendix C (iv) – Interface Proposals

Summary of Interface Proposals to be provided by Bidders

The following Interface Proposals are required to be provided by Bidders to the Board for Final Tender as part of C31. The requirements of the Interface Proposals are more fully set out in Appendix A of the Board's Construction Requirements, subject to certain conditions within Schedule Part 5 (Land Matters), and this summary should be read in conjunction with these provisions. Although the Interface Proposals are primarily relevant to the Construction Phase, some Interface Proposals shall apply to the Project Operations. Please note that Appendix A of the Board's Construction Requirements may be subject to change to reflect discussions during the Dialogue Period.

The requirement for the Interface Proposals arose from an agreement between the Board and Consort when the Site was removed from the Campus Site (i.e. in order for the Board to secure land for the construction of the Facilities) and therefore from Consort's responsibility. The Interface Proposals are intended to provide Consort with some comfort that the Project Operations are conducted by Project Co in a manner which is least detrimental to Consort's ability to operate the Retained Estate and/or Retained Site.

The Interface Proposals shall be agreed between the Board and Consort pursuant to procedures set out in the RIE Project Agreement. All Bidders are required to submit Interface Proposals prior to relevant Dialogue Meetings, as per the timetable set out below. However, the Board shall not engage with Consort to finalise and agree these Interface Proposals until Preferred Bidder stage. It is the Board's intention that the Interface Proposals shall be in an agreed form and ready for implementation by the Preferred Bidder at Financial Close.
The Board's approach to the Interface Proposals in the ITPD is to ensure a level playing field between Bidders. Please note that the Board cannot guarantee that Appendix A of the Board's Construction Requirements, upon which the Interface Proposals shall be based, will not be subject to further amendment or refinement at Preferred Bidder stage or post-financial close. However, at this stage, the Board anticipates that any such amendment or refinement should not be material.

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
1	Traffic Management Strategy	The Traffic Management Strategy ('**TMS**') is required where Project Co wants to access the Site for the construction of the Project via the Orange Areas (which	Required to be	Preferred Bidder Stage	Pass / Fail	Construction Phase

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		includes the orange hatched areas) shown on Plan 2. The TMS is a proposal which is to address traffic management at the Campus which must be prepared having regard to: (a) the health and safety of all users of the Campus Site and/or Campus Facilities must be safeguarded at all times; (b) RIE Facilities is a working hospital to which access (including both pedestrian and vehicular) must be maintained at all times; (c) traffic at the Campus Site is to be prioritised in accordance with the following hierarchy: (i) blue light traffic access/egress; (ii) staff, patients and visitors to the Campus Site and/or Campus Facilities (public transport); (iii) staff, patients and visitors to Campus Site and/or Campus Facilities (car parking); (iv) Campus Site and/or Campus Facilities deliveries, FM supplies and waste collection; and (v) Project Co's construction traffic; and (d) insofar as reasonably practicable and appropriate in	submitted for Final Tender. .			

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		the circumstances (taking into consideration, for example, the number of construction vehicles involved, the number of journeys anticipated, the time of the day when access is required and the part(s) of the areas affected) construction traffic using the affected area shall require to be segregated from other traffic and/or pedestrians using the affected area (for example, through contra-flow or one way traffic arrangements and safe routes for pedestrians). Further details of the TMS are set out in paragraph 2 (Construction Access over Orange Area) of Section 1 of Part 1 of Appendix A of the Board's Construction Requirements.				
2	Oversail Strategy	If as part of its activities (including construction of the Project) Project Co needs to oversail any other part of the Retained Site and/or Retained Estate then Project Co requires to prepare Oversail Strategy/ies. The Oversail Strategy/ies must comply with specified criteria and include: (a) programme of proposed oversail activities; (b) risk assessments; (c) a strategy for erection, operation, dismantling of oversailing crane(s), the details of which are more fully set out in Section 4 (Oversailing) of Part 1 of Appendix A of the Board's Construction Requirements.	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Primarily Construction Phase but also Operational Term if any Project Operations required oversailling

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
3	Access Strategy	An Access Strategy is required where Project Co needs to occupy part or parts or do works in and/or hoard off Access Areas (which includes Orange Areas (including orange hatched areas, on Plan 2), Yellow Area (including yellow hatched area, on Plan 2) and Substation Access Area (which is shaded blue and hatched black on Plan 2)) for carrying out works to pedestrian and vehicular access, to reconfigure roads, footpaths and landscaped areas and install surface water and foul/sewer drainage connections. Pedestrian and vehicular access to the Campus Site and/or Campus Facilities must be maintained at all times (albeit that the access arrangements may require to be subject to restrictions or diversions during any periods of occupation.) These restrictions need approval in the form of an Access Strategy. The Access Strategy is for managing pedestrian and vehicular access, in a manner similar to the TMS above but is not limited to traffic for construction. The Access Strategy is be prepared which shall ensure: (a) The health and safety of all users of the Campus Site and/or Campus Facilities must be safeguarded at all times; (b) Regard is had to RIE Facilities as a working hospital to which appropriate pedestrian and vehicular access must be maintained at all times;	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term (wherever there is to be future ongoing maintenance the areas described).

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		(c) Pedestrian and vehicular access must be maintained (albeit, at times it may be restricted) over the section of Little France Crescent lying within the part of the Orange Area shown shaded orange (but not hatched black) on Plan 2; and (d) Traffic will be prioritised in accordance with the following hierarchy: (i) blue light traffic access/egress; (ii) staff, patients and visitors to the Campus Site and/or Campus Facilities (public transport); (iii) staff, patients and visitors to the Campus Site and/or Campus Facilities (car parking); (iv) Campus Site and/or Campus Facilities deliveries, FM supplies and waste collection; and (v) Project Co's construction traffic. Further details of the Access Strategy are set out in paragraphs 2 to 4 (Access Strategy) and 8 of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements				

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Provisions about any Access Strategy to address an access which is required in the Operational Term not contemplated by the Access Strategy above is dealt with in Section 2 (Access Strategy and Amended Drainage Proposal) of Part 2 of Appendix A of the Board's Construction Requirements.				
4	Supplemental Drainage Proposal	A Supplemental Drainage Proposal is required where Project Co wants to install new surface water drainage connections from the Site to the existing surface water drain within the Orange Area. There is already an Initial Drainage Proposal, as set out in Appendix E of the Board's Construction Requirements, which primarily details the agreed connection points. This has to be complied with and supplemented by this Supplemental Drainage Proposal to include details of the design, construction, programme and Project Co's drainage proposals for the relevant drainage works. Prior to any drainage works taking place, Project Co (once appointed as Preferred Bidder) shall undertake a camera survey to document the condition of the existing surface water drainage system within the RIE Site. The camera survey will be carried out in accordance with Good Industry Practice and cover the full section of the RIE Site surface water drainage system that will serve the Site, from the point of the first connection from the Site to the drainage system to the point at which the drainage system discharges from the RIE Site to the Niddrie Burn. Four hard copies and an electronic version of the camera survey will be delivered by Project Co to the Board and no	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		works may be carried out until the said camera survey has been carried out and requisite copies delivered by Project Co to the Board. Further details of the Drainage Proposals are set out in paragraphs 5 (Drainage Proposals) and 8 (Other General Matters) of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements. **Amended Drainage Proposal** If when Project Co is carrying out any of the drainage or services connections as more fully described above, it transpires that the position within the Orange Area is different (including route, depth, size or condition of the service media within the Orange Area) from what was anticipated so there is a need to change the scope of the drainage or service connections, then Project Co requires to prepare an Amended Drainage Proposal to include additional detail, information and drawings as are available. Further details of the Amended Drainage Proposals are set out in paragraph 2 (Drainage Proposals) of Section 2 of Part 2 of Appendix A of the Board's Construction Requirements.				
5	Substation Proposal	The Sub-station Proposal must address the construction and maintenance repair and renewal of the access road in the Substation Access Area in the event that a Substation	Required to be submitted	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		is being built on the Substation Site. **Substation Access Area** If Project Co needs to do works to construct an access road in Substation Access Area shown shaded blue and hatched black on Plan 2, then prior to any access Project Co will have to prepare a Substation Proposal which must include details of design, construction, programme and Project Co's Proposals for the relevant Sub-station Access Works. The Substation Proposal must: (a) be safe in respect of personnel or equipment on any part of the Campus and/or Campus Facilities; (b) be in accordance with Good Industry Practice and Law; (c) not materially adversely effect the flow or functioning of the Niddrie Burn; and (d) adequately protect the high voltage electricity cable running through the Substation Access Area. **Substation** Project Co also needs to provide information about the design and construction of the Substation and Substation HV Cable.	for Final Tender.			Term.

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Method Statement Maintenance of Substation HV Cable by Project Co. Further details of the Substation Proposals and the Substation and Substation HV Cable are set out in paragraphs 6 and 7 (Substation Access and Cables) of Section 5 of Part 1 of Appendix A of the Board's Construction Requirements.				
6	Service Proposal (Service Strip and Foul Service Strip)	If Project Co wishes to do works (in each case as necessary in connection with the Works) to construct and lay: (a) service media through under over Service Strip (shown shaded yellow and hatched black on Plan 2) for the passage of water, sewage, drainage or oil, gas, electricity, telephone (and other telecommunications); and/or (b) foul drainage through under over Foul Service Strip (shown shaded yellow and hatched black on Plan 2A) for the passage of foul drainage, then Project Co requires to exhibit Scottish Water or other statutory authority/utility company approvals in relation to the works for the connection of service media from the Site to the mains sewer located on the RIE Site and provide a Project Co's Proposal which must detail the route and depth of service media and detailed Method Statements for the maintenance, repair and renewal of the (i) service media through, under and over the Service Strip; and (ii)	Required to be submitted Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		foul drainage through the Foul Service Strip. Further details of the Service Proposal are set out in Section 6 (Service Strip and Foul Service Strip) of Part 1 of Appendix A of the Board's Construction Requirements. **Amended Service Proposal** If when Project Co is carrying out any of the drainage or services connections as more fully described above, it transpires that the position on Site is different (including route, depth, size or condition of the service media on Site) from what was anticipated so there is a need to change the scope of the drainage or service connections, then Project Co requires to prepare an Amended Service Proposal to include additional detail, information and drawings as are available. Further details of the Amended Service Proposal are set out in Section 3 (Service Strip and Foul Service Strip) of Part 2 of Appendix A of the Board's Construction Requirements.				
7	Connection Proposal	Project Co shall prepare a Connection Proposal in respect of the RIE Works. This should include a programme and the following specific connection information: (a) Link Building: (i) Design package for method of connection of the Facilities to the Link; and (ii) a Project Co's Proposal in respect of the connection to the Link	Required to be submitted for Final Tender.	Preferred Bidder Stage	Pass / Fail	Construction Phase and Operational Term

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		Building; (b) Fire alarm systems: (i) The fire alarm system specification for the interface link between the fire alarm system within the Facilities and the RIE Facilities; (ii) design package information for method of installation for the interface link between the fire alarm system within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the interface link between the fire alarm system within the Facilities and the RIE Facilities; and (iv) a Method Statement for the maintenance and repair of the interface link between the fire alarm system within the Facilities and the RIE Facilities; (c) Not Used, (c) PTS: (i) The PTS specifications for the Facilities and the RIE Facilities; (ii) design package information for the proposed method of installation of the PTS within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the installation of the PTS within the Facilities and RIE Facilities; (iv) a Method Statement for the maintenance and repair of the PTS within the Facilities and RIE Facilities; The Board will confirm the route during Dialogue. (d) ICT: (i) The ICT specifications for the Facilities and the RIE Facilities; (ii) design package information for the proposed method of installation of the ICT within the Facilities and the RIE Facilities; (iii) a Project Co's Proposal for the installation of the ICT within the Facilities and RIE Facilities; (iv) a Method Statement for				

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both
		the maintenance and repair of the ICT within the Facilities and RIE Facilities; The Board will confirm the route during Dialogue. Project Co should refer to Sub-section C of the Board's Construction Requirements as regards specifications and control requirements for such PTS, ICT, fire and security systems and information about the Link Building. Further details of the Connection Proposal are set out in Section 7 (Link Building) of Part 1 of Appendix A of the Board's Construction Requirements. Project Co's construction access is governed by the following provisions of Appendix A of the Board's Construction Requirements: (a) Paragraph 1 in relation to Construction Access over the Yellow Area; and (b) Paragraph 2 in relation to construction access over the Orange Area.				
8	Construction Access Proposal		Required to be submitted for Final tender	Preferred Bidder Stage	Pass/Fail	Construction Phase

Item	Description of Interface Proposal	Content	When Submitted by Bidder	When agreed between Board and Bidder	How evaluated for Final Tender	Applicable to Construction Phase, Operational Term or both

Appendix D – Dialogue Period Query Proforma

Re-provision of RHSC + DCN
DIALOGUE PERIOD QUERY PROFORMA

Ref No:	
Dated Raised:	

Topic: **Technical** **Administration**
Financial **Other**
Commercial

Is this query considered commercial in confidence?	**Yes**	**No**

Query/Request:
Response:
Date of Response:

Please deliver response via:	**Letter**	**Fax** **E mail**

Raised on behalf of [ ] by: [ ]

For RHSC DCN Use

RHSC DCN Ref No: **Date Received:**

Passed to

NHSL Project Team		**E&Y**		**Scottish Government other**	
		MacRoberts			
		Mott Mac			

Appendix E - Reference Design Elements

Elements of the Reference Design	Status
Schedules of Accommodation	For spaces relating to Operational Functionality that will be used by NHS Lothian, and Non-Clinical Services spaces, the area of these rooms shall be a minimum and this minimum area is a mandatory requirement. The Reference Design Schedule of Accommodation needs to be read in conjunction with the Draft Schedule of Accommodation prepared by the Board as noted in paragraph 2.5.1 (Schedule of Accommodation and Reference Design Schedule of Accommodation). All other spaces are indicative.
Development Control Plan and Urban Design 1:1000/1:500	Mandatory - those elements defined under Operational Functionality i.e.: (i) the points of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; (iii) the adjacencies between different departments within the Facilities; and (iv) the corridor widths as shown are a minimum with these minimum widths being mandatory requirements. Indicative - everything else including Non-Clinical Services spaces.
Departmental Layouts 1:500	Mandatory - those elements defined under Operational Functionality i.e.: (i) the points of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; (iii) the adjacencies between different departments within the Facilities; and (iv) the corridor widths as shown are a minimum with these minimum widths being mandatory requirements. Indicative - all other elements (e.g. Non-Clinical Services spaces, layouts and locations for Hard FM spaces, locations and sizes for services risers and spaces etc).
General Arrangements Plans 1:200	Mandatory - those elements defined under Operational Functionality i.e.: (i) the points of access to and within the Site and the Facilities; (ii) the relationship between one or more buildings that comprise the Facilities; (iii) the adjacencies between different departments within the Facilities; (iv) the adjacencies between rooms within the Hospital departments; and(v) the corridor widths as shown are a minimum and these minimum widths are mandatory requirements.
A43133429	Indicative - all other elements (e.g. Non-Clinical Services spaces, layouts and locations for Hard FM spaces, locations and sizes for services risers and spaces, etc).

Elements of the Reference Design	Status
General Arrangement Elevations and Sections.	Indicative
Generic Room Layouts 1:50	Mandatory - those elements defined under Operational Functionality i.e.: The location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal room elevations. Indicative - All other elements.
Key Room Layouts 1:50	Mandatory - those elements defined under 'Operational Functionality' i.e.: The location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans and internal room elevations. Indicative - All other elements.
Fire Strategy 1:200	Indicative
Interior Design and Artwork Concepts	Indicative
Wayfinding Strategy	Indicative
Flexibility and expandability	Indicative
Supplies, Storage, Distribution and Waste Management (Soft FM)	Mandatory
Decontamination and Control of Infection (HAI-SCRIBE)	Indicative

Elements of the Reference Design	Status
BREEAM	Indicative
Geotechnical Site Investigation	N/A (Data Room status)
Decanting, Phasing,	Indicative
Traffic Impact Assessment and Traffic Management Plan	Indicative
Security Strategy	Indicative
ICT strategy	Indicative
Helipad	Indicative

Appendix F – Thermal and Energy Model Parameters

1 THERMAL MODELLING DATA

1.1 General

In addition to energy modelling required of Bidders to satisfy Building Regulations and the BREEAM requirements of the Project, energy modelling shall further be undertaken to inform the Authority of the actual proposed annual energy consumption of the Facilities, by fuel type, and the annual operating costs therein.

Bidders / Project Co shall undertake comprehensive "all-inclusive" thermal and energy modelling to assess the performance of the Bidders' proposals/Project Co Proposals, and provide an assessment of the actual energy consumption for the building.

The thermal and energy performance of the Facilities shall be modelled to the Project specific parameters, identified within Section 3 (*Board's Construction Requirements*) of Schedule Part 6 (*Construction Matters*). Thermal and energy modelling shall inform the sizing of all heating, ventilation and comfort cooling requirements for Project Co's Proposals, inclusive of all natural ventilation pathway and overheating analysis.

Bidders/Project Co shall provide proposed energy consumption figures from their "all-inclusive" thermal and energy modelling, with all supporting documentation including model inputs, assumptions, calculations and reporting, at the following design stages:

- Final Tender;
- Financial Close; and
- Commissioning End Date.

The following documentation shall be used in providing the thermal and energy modelling for the building;

- Scottish Health Technical Memorandums
- EnCO2de
- Health Building Notes
- CIBSE Design Guides (including AM11: *Building Energy and Environmental Modelling* and TM54: *Evaluating operational energy performance of buildings at the design stage)*
- Building Regulations (Scotland) Technical Standards

1.2 Building Envelope

The building envelope, construction and materials and the operation will have a significant impact on the efficient operation of the building engineering services installations. The thermal and energy

model requires therefore to take cognisance of the project specific factors as detailed in the Reference Design proposals and Section 3 (*Board's Construction Requirements*) of Schedule Part 6 (*Construction Matters*).

The modelling exercise must take cognisance of the RIE Facilities and the associated Link Building to recognise the interface between the new and the existing buildings.

The Gross Internal Floor Area should be calculated by measuring the overall internal area of the building making a reduction for partitions, walls, voids and courtyards. The floor areas of internal rooms, circulation spaces and internal walkways should be included.

The heated volume should take into account the height between the floor surface and the room ceiling and should exclude ceiling voids, pipe ducts and plant rooms and include for a 6% reduction due to walls/partition generally in accordance with HTM 07-02: EnCO2de – Making energy work in healthcare.

The building envelope performance design criteria should be based upon an air tightness figure measured in $m^3/hr/m^2$ @ 50Pa as appropriate to the type of facility and in accordance with Building Regulations (Scotland) Technical Standards.

Further methods of measuring and demonstrating the thermal efficiency of the building envelope such as thermal imaging can be utilised subject to agreement with the Board.

1.3 Ambient Weather Profile and Degree Day

The energy use of the building may be predicated by reference to the outside temperature and the Department of Health Estate and Facilities division publishes degree day data on a monthly basis.

The energy modelling shall be based on the above degree day data utilising the base temperature of 18.5° Celsius and Edinburgh degree day weather profile data.

Outputs from degree day energy models may be combined with additional numerical energy models to provide an "all inclusive" energy model for the building.

1.4 Dynamic Thermal and Energy Modelling Simulation

As an alternative to the Degree Day methodology, a certified and industry approved Dynamic Simulation Model (DSM) software tool compliant with CIBSE Applications Manual AM11 may be used to produce the thermal and energy model for the Facilities.

Bidders shall seek agreement from the Board of their proposed modelling tool which shall require to be the most updated version of either:-

- IES (Integrated Environmental Solutions) Programme
- TAS (Thermal Assessment Simulation) Programme

Future modelling tools may be available and Bidders shall obtain the agreement of the Board if they propose to use a certified alternative to those listed above.

Outputs from dynamic simulation models may be combined with additional numerical energy models to provide an "all inclusive" energy model for the building.

1.5 Plant and Systems

The thermal and energy modelling shall incorporate all building services installations as required to maintain the Facilities within the operational parameters as defined in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters).

Any specific loads that Bidders deem to be excluded from the thermal and energy model, such as catering, etc., shall be quantified by Bidders and submitted to the Board for agreement and acceptance prior to any modelling works commencing.

1.6 Group 2 to 3 Equipment

As part of the thermal and energy modelling exercise Bidders shall provide an assessment of the energy consumption of the known Group 2A, Group 2B and Group 3 equipment.

Bidders are to provide a proposed methodology to the Board to demonstrate the projected energy consumption of the Group 2A, Group 2B and Group 3 equipment.

Although this information shall not form part of the agreed energy or carbon emissions targets, it shall be utilised to provide the Board with an informed estimate of anticipated future energy consumptions and utilities costs to allow future budget allocations to be assessed.

2 DESIGN PERIOD

2.1 Modelling of Design Proposals

To calculate energy consumption loads for mechanical services, the CIBSE Building Energy Codes, calculation using the Degree Day Method and Edinburgh weather data for Space Heating and ventilation systems shall be used.

The occupancy, Equipment usage and departmental hours shall be identified by the Board. Any variations from this data proposed by Project Co shall be agreed with the Board prior to any modelling works commencing. Where assumptions are made by Project Co, these shall be in line with Good Industry Practice and shall be quantified in the submission. This includes the application of factors set out in CIBSE Guide B for the thermal weight of the building, levels of operation and occupancy (Table B18.12), and the correction factor for the length of working day (table B18.13) as appropriate.

The exact correction factors to be applied in the modelling shall be provided by the Bidders and agreed with the Board prior to any modelling works commencing.

The degree day figure used shall be 18.5° Celsius as the base.

Space heating/cooling should be assessed on the required temperatures that are indicated on the room data sheets that will be provided by the Board to Bidders.

Design calculations shall be based on an external winter condition appropriate to Edinburgh and shall be compliant with external winter conditions detailed in the CIBSE design guides.

Thermal conductivity values shall be at a minimum as stated in the Scottish Building Regulations (Technical Standards) and shall reflect the actual building fabric design proposals.

The clinical usage and departmental hours shall be as indicated by the Board and any variations from these shall be proposed by the Bidders shall be agreed with the Board prior to any modelling

works commencing.

All ventilation plant should be assessed on a maximum power and pressure drop within the air distribution systems as stated in the Scottish Building Regulations (Technical Standards) and in-line with Good Industry Practice.

Domestic Hot Water (DHW), usage shall be based on a 24-hour usage period. Any variation to this shall be proposed by Bidders and agreed with the Board prior to any modelling works commencing.

The cold water storage provision should be based on a 24-hour day usage period. Any variation to this shall be proposed by Bidders and agreed with the Board prior to any modelling works commencing.

Lighting shall be modelled in accordance with the Board's Construction Requirements, Room Data Sheets and any specific guidance provided by the end-user through the Board.

All lighting designs shall comply with CIBSE lighting design guides and the general lighting strategy proposed by Bidders and as detailed and agreed at Financial Close. Any variation to this shall be proposed by Bidders shall be agreed with the Board prior to any modelling works commencing.The thermal and energy model shall also be used by Bidders to show compliance of Project Co's Proposals with the Board's thermal and air quality requirements as identified in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters).

Dynamic simulation models shall use the CIBSE Test Reference Year (TRY) data for Edinburgh in assessing the heating and, where required, cooling for each room within the Facilities. This information will inform the sizing of heating, ventilation and comfort cooling equipment within Project Co's Proposals. CIBSE Design Summer Year (DSY) data shall be utilised to assess natural ventilation strategies.

Thermal and energy models shall accurately model all proposed window/fenestration opening profiles, including taking in to account all constraints in the fenestration openings, including reveals, meshing and restrictors, when assessing overheating and air quality criteria for naturally ventilated rooms. Any automation and/or proposed opening parameters, for example temperature set points to open fenestration or any night time cooling strategies, shall be agreed in advance with the Authority.

The thermal and energy models shall further allow for accurate thermal representation, and HVAC system sizing therein, for where doors are to be held open for operational or fire safety reasons.

2.2 Key Deliverable

The primary deliverable will be that Bidders / Project Co shall provide detailed calculation and modelling documentation, following the protocol as identified above that demonstrates the proposed "all-inclusive" actual annual energy consumption of the proposed Facilities by fuel type.

Bidders/Project Co shall further show that thermal modelling has been undertaken, following the protocol as identified above, to inform the heating, ventilation and cooling (HVAC) plant, overheating analysis and equipment sizing for the Facilities.

Appendix G – Insurance Response Matrix

Part 1 Insurance Costs Matrices

A. Premium calculation for Construction Phase - Schedule Part 15 Section 1

Class of Required Insurance	Cover Period	Sum Insured/ Rateable Factor	Premium Rate	Premium excluding IPT	Insurance Premium Tax (IPT)	Brokers remuneration (specify type and amount)
1. Contractors "All Risks" Insurance						
2. Contractors “All Risks” Terrorism Insurance[1]						
3. Delay in Start Up Insurance						
4. Delay in Start Up Terrorism Insurance[2]						
5. Construction Third Party Liability Insurance						
6. Insurances required by law						
TOTALS						

[1] Bidder Note: whilst it is noted that the Terrorism Insurance will be renewable annually, the premium quoted in this table should represent the full cost for the duration of the Works.
[2] Bidder Note: whilst it is noted that the Terrorism Insurance will be renewable annually, the premium quoted in this table should represent the full cost for the duration of the Works.

B. Premium calculation for Policies to be taken out and maintained from the Actual Completion Date - Schedule Part 15 Section 2

Class of Required Insurance	Cover Period	Sum Insured/ Rateable Factor	Premium Rate	Premium excluding IPT	Insurance Premium Tax (IPT)	Brokers remuneration (specify type and amount)
1. Property Damage "All Risks" Insurance						
2. Property Damage “All Risks” Terrorism Insurance						
3. Business Interruption Insurance						
4. Business Interruption Terrorism Insurance						
5. Third Party Public & Products Liability Insurance						
6. Insurances required by law						
TOTALS						

C. Waiver of subrogation for Consort and Consort Parties

Please identify separately for all policies required by Schedule Part 15 Sections 1 and 2 the cost of obtaining a waiver of subrogation against Consort and Consort Parties including their respective suppliers and / or subcontractors of any tier pertaining to the RIE Project Agreement in accordance with clause 53.6.1 of the draft NPD Project Agreement.

Class of Required Insurance	**Cover Period**	**Premium excluding IPT**	**Insurance Premium Tax (IPT)**	**Brokers remuneration (specify type and amount)**
1. Contractors "All Risks" Insurance				
2. Delay in Start Up Insurance				
3. Construction Third Party Liability Insurance				
4. Insurances required by law (Construction Phase)				
5. Property Damage Insurance				
6. Business Interruption Insurance				
7. Third Party Public & Products Liability Insurance				
8. Insurances required by law (from Actual Completion Date)				
TOTALS				

Part 2 Insurance Technical Matrix

A. Schedule Part 15 Section 1 of NPD Project Agreement

Class of Insurance	Insurer(s) Identity (N.B. Including any co-insurers or excess layer insurers)	Deductible each and every claim (N.B. Confirm any aggregate Deductible if applicable)	Agreement to the requirements Clause 53 (Insurance) (If not please identify areas of variation or alternative proposals)	Agreement to the requirements of Schedules Part 15 (Insurance Requirement) and Schedule Part 25 (Insurance Proceeds Account Agreement) (If not please identify areas of variation or alternative proposals)
1. Contractors "All Risks" Insurance				
2. Delay in Start Up Insurance				
3. Construction Third Party Liability Insurance				
4. Insurances required by law				

B. Schedule Part 15 Section 2 of NPD Project Agreement

Class of Insurance	Insurer(s) Identity (N.B. Including any co-insurers or excess layer insurers)	Deductible each and every claim (N.B. Confirm any aggregate Deductible if applicable)	Agreement to the requirements of Clause 53 (Insurance) (If not please identify areas of variation or alternative proposals)	Agreement to the requirements of Schedules Part 15 (Insurance Requirement) and Schedule Part 25 (Insurance Proceeds Account Agreement) (If not please identify areas of variation or alternative proposals)
1. Property Damage "All Risks" Insurance				
2. Business Interruption Insurance				
3. Third Party Public & Products Liability Insurance				
4. Insurances required by law				

Appendix H – Certificate of Non-Collusion and Non-Canvassing

CERTIFICATE OF NON-COLLUSION AND NON-CANVASSING

We acknowledge that any Bidder who directly or indirectly canvasses any member, official or employee of Lothian Health Board ("the Board") concerning the award of any contract in relation to the Project to re-provide services from the Royal Hospital for Sick Children, Child and adolescent Mental Health Services and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France will be disqualified from the bidding process and any Submission submitted by or on their behalf shall be disregarded.

Therefore, we hereby certify and undertake and bind and oblige ourselves to the Board and its successors that we have not canvassed or solicited nor will we in the future canvass or solicit any member, official or employee of the Board in connection with the award of the Project or any Submission or proposed Submission in connection therewith and we certify that, to the best of our knowledge and belief having made reasonable enquiry, our Relevant Persons (as hereinafter defined) have not so canvassed or solicited.

In this certificate and undertaking, "Relevant Person" shall mean, as applicable in relation to us, any party co-operating with us in tendering for the Project, fellow tender consortium member, joint venture, controlling shareholder, subsidiary or parent company or other company within any group of which we form part, or any other person directly or indirectly controlling or controlled by us.

The essence of tendering is that the Board shall receive *bona fide* competitive Submission from all persons tendering. In recognition of this principle:

I. We certify to the Board and its successors that the Submission submitted by us, or on our behalf, is a *bona fide* Submission, intended to be competitive and we have not fixed or adjusted the amount of the Submission or the rates or prices quoted therein by, or under, or in accordance with any agreement or arrangement with any other person.

II. We also certify to the Board and its successors that we and, to the best of our knowledge and belief having made reasonable enquiry, our Relevant Persons have not done and we hereby undertake and bind and oblige ourselves that we will not do at any time, any of the following acts:
   A. enter into any agreement or arrangement with any other person that he shall refrain from bidding or add to the amount of any Submission to be submitted; or
   B. offer or agree to pay or give any sum of money, inducement or valuable consideration directly or indirectly to any person for doing or having done or causing to be done, any act or omission in relation to the Submission or any other tender submitted to the Board in relation to the Project.

_____ in capacity of _____

Signature

duly authorised to act on behalf of _____

_____

_____

_____

Date

in the presence of

Witness

Full name

Address

Appendix I – Community Benefits

1 Social Considerations / Community benefits overview

1.1 Background

The Board recognises the very significant training and employment opportunities delivery of this Project can create for the wider community and beyond throughout the Project Term. The Board also recognises that the Project has the potential to drive significant initiatives relating to regeneration, sustainability and social benefits, aligning with the Board's strategic objectives.

The Board is therefore incorporating a range of social considerations/Community Benefits (CB) Requirements into its procurement which will ultimately form contractual requirements under and in terms of Clause 73 (Community Benefits) of the NPD Project Agreement.

Project Co will work in partnership with the Board and where appropriate, the Edinburgh Partnership and the agencies listed in section 3.6 to deliver the Board's CB Requirements in respect of both the construction and operational phases of the Project.

1.2 Overview of the Board's CB Requirements

These are set out in Section 2 and comprise requirements for the following -:

- Targeted Recruitment and Training /Employment and Skills Plan(Section 2.1)
- Supply Chain Development (SMEs) (Section 2.2)
- Supply Chain Development (Social Enterprises) (Section 2.3)
- General CB Requirements (Section 2.4)

1.3 Bid Submission Requirements

These are detailed in Section 3.
In broad terms the Board's CB Requirements are expressed in general terms. Bidders are given freedom to provide proposals that best fit their delivery structure and procedures, split into construction phase proposals and operational phase proposals. Bidders are, however, required to propose specific financial consequences for failing to deliver these proposals, such payments to be reflected in Clause 73 of the NPD Project Agreement.
Bidders' responses will comprise completion of the various submission requirements, which are more fully set out in Section 3, but can be summarised as follows:

Section	Submission requirement	Approach to scoring
Section 3.1: Employability and Training – Construction phase	Completed ESP Completed CB Method Statement	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.

Section	Submission requirement	Approach to scoring
Section 3.2 – Employability and Training – Operational phase	Completed ESP Completed CB Method Statement	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.3 – Supply Chain Development, SME and Social Enterprise – Construction phase	Completed CB Method Statement for Construction phase	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.3 – Supply Chain Development, SME and Social Enterprise – Operational phase	Completed CB Method Statement for Operational phase	Scored in accordance with section B6 of Table A set out in paragraph 5.6.3 of Volume 1 of the ISFT, as also referred to in section B6 of Appendix (ii) (Technical Submission Requirements) of Volume 1 of the ISFT. A maximum of 25% of the Quality Evaluation Criteria Weighting will be applicable to this section.
Section 3.4 – Other Community Benefits	Bidders shall submit a Method Statement setting out any other proposals or measures they are willing to undertake to provide additional Community Benefits	Requirement to submit a Method Statement but not scored.

Responses referred to here as “CB Method Statements” are referred to in the NPD Project Agreement (Bidder Specific) as Project Co's Community Benefits Method Statements.

1.4 Role of Edinburgh Council

The Board is a partner in the Edinburgh Partnership, a community planning partnership for the city which brings together the public, community, voluntary and business sectors to deliver a better quality of life in Edinburgh. For further information see:

http://www.edinburgh.gov.uk/info/20162/edinburgh_partnership/1446/about_the_edinburgh_partnership
Members of the Partnership will not be precluded from working with Project Co to deliver the CB programme provided that any potential conflicts of interest are managed to the Board's satisfaction.

2 The Board's Community Benefits Requirements

2.1 Targeted Recruitment & Training/Employment and Skills Plan

The Board is committed to assisting unemployed people, encouraging access to quality sustainable employment and providing training opportunities relating to deliver of the Project.

This may include on-site training and assessment, or offsite training, or a mix of these.

The Board, based on the approach outlined by Construction Skills, and using benchmarks suggested in guidance produced by them relevant to employability and training measures in major health projects, has identified the following required outputs and volumes.

Work Placement (16-19 years)	16
Work Placement (14-16 years)	4
Curriculum support activities	14
Graduates	3
Apprentice starts	11
Existing apprentices	10
Apprentice completions	3
Jobs advertised through local employment vehicles	7
N/SVQ starts for subcontractors	21
N/SVQ completions for subcontractors	18
Training Plans for subcontractors	5
Supervisor training for subcontractors	10
Leadership and management training for subcontractors	9
Advanced health and safety training for subcontractors	11

2.2 Supply Chain Development: SMEs

2.2.1 Context

The long term sustainable development of the SME base is vital to driving sustainable economic growth within Lothian, Scotland and beyond. The Board, in furtherance of its own objectives and those of the Edinburgh Partnership of which it forms part, recognises the need to support the development of the SME sector by developing a procurement approach which ensures their exposure to procurement opportunities related to the Project.

2.2.2 Requirement

Project Co shall ensure that the Project Co advertises, and ensures that its sub-contractors:

- advertise all relevant subcontracts to be agreed with Bidders with reference to Bidders' method statements; and

- allow SMEs equal opportunities to tender provided they have the appropriate capacity, experience and financial standing (and without leading to discrimination against others in the market).

An SME is defined as a company that is a small or medium-sized company and is not a member of a large group. An SME has a turnover of up to 50m Euro per annum and has no more than 250 employees.

2.2.3 Notes

Bidders may wish to contact the organisations listed in section 3.6 in the context of developing their proposals to meet the above.

1.1 Supply Chain Development: Social Enterprises

2.3.1 Context

The Board supports the Scottish Government's policy on Social Enterprise and believes that Social Enterprises have a distinct and valuable role to play in helping to create a strong, sustainable and socially inclusive economy.

A Social Enterprise is a business with primarily social objectives whose surpluses are principally reinvested for that social purpose in the business or in the community rather than being driven by the need to maximise profit for shareholders and owners. Social Enterprise is a business model which offers the prospect of a greater equity of economic power and a more sustainable society - by combining market efficiency with social and environmental justice.

The approach is founded on the principle of building relationships and partnerships by integrating a community development vision, social outcomes, business objectives and local and national government goals. Social Enterprises are involved in a wide range of industries, from recycling, community transport, landscaping, catering, employment and training to event management. In accordance with its broader objectives and its objectives through the Edinburgh Partnership, the Board wishes its procurement process ensures that Social Enterprises are made aware of supply chain opportunities offered by the Project.

2.3.2 Requirements: General

Project Co shall ensure that Project Co shall advertise, and ensure that its sub-contractors:

- advertise all relevant subcontracts to be agreed with Bidders with reference to Bidders method statements; and
- allow Social Enterprises equal opportunities to tender provided they have the appropriate capacity, experience and financial standing (and without leading to discrimination against others in the market)

2.3.3 Notes

Bidders may wish to contact the agencies listed in section 3.7 for information on Social Enterprises and/or in the context of developing their proposals to meet the above.

As part of the Scottish Government's strategy to create an enterprising third sector, social enterprises are preparing to increase activity with commercial contractors, utilising national and local training, capacity building and promotional measures. A register of social enterprises that are interested in contract delivery has been created at ***www.readyforbusiness.org*** *to assist contractors to identify individual social enterprises and consortia, to assist planning with respect to community benefit delivery within a range of contract opportunities.*

Scottish Government initiatives are supported by a Tender Preparation programme for Third Sector Organisations throughout Scotland that will be delivered through Scottish Government Contract by CEiS and the Supplier Development Programme in 2010/11. Through these programmes, significant support and resource is being allocated to support social enterprises to be ready to engage with companies delivering commercial contracts, and in particular within a community benefits framework to ensure that procurement activity contributes to meeting the Board's aims of having a robust social enterprise sector delivering social and environmental benefits in the city.

2.4 Other Community Benefits

Consistent with its broader objectives, including its objectives through the Edinburgh Partnership, the Board seeks to maximise Community Benefits delivered by the Project.

Accordingly, bidders will require to set out any additional Community Benefits that they would be willing to provide at no additional cost over the period of the contract. **Submissions on these additional benefits will not be scored** but the Board considers that such submissions could, for example, include additional Bidder proposals to:

- undertake educational initiatives with community, voluntary and charitable organisations relevant to the Project and not falling under 2.1 and 2.2 above; or

- support or contribute in some other way to the work of community, voluntary and charitable organisations associated with the Project.

Bidders will be at liberty to put forward other proposals.

Clause 73 of the NPD Project Agreement shall operate to contractually oblige Project Co to deliver additional Community Benefits that it puts forward.

2.5 General Community Benefits Requirements

2.5.1 Monitoring

Project Co will be required to provide monitoring information at least quarterly in a format to be agreed with the Board. The primary function of the monitoring information will be to enable the Board to measure and produce reports on Project Co's performance against the Community Benefits objectives.

In particular:

- Targeted Recruitment and Training:

- Supply Chain Development (SMEs and Social Enterprises); and
- Other Benefits put forward by Project Co.

To comply with the Data Protection Act, all such monitoring and training documents must include a statement authorising Project Co to disclose personal data from the monitoring forms to the Board for the purposes of contract monitoring. This statement is to be signed by the individuals listed.

2.5.2 Insurances

Project Co shall ensure that insurance cover includes people aged 16 and over and staff from employment and training organisations when on work experience on-site.

2.5.3 Disclaimer

The Board will work with its partners to enable access to appropriate construction and operational training, jobseekers, SMEs and Social Enterprises to be available to Project Co.

This action, however, does not comprise or imply any promise on the part of the Board or their agents to provide suitable services, trainees, labour or resources.

Any action taken by the Board to facilitate relationships between Project Co and individuals/firms/agencies does not imply and should not be deemed to imply that they or its agents consider the individual, firm or agency as suitable for engagement by Project Co and/or its supply chain. Within this context, the Board will work with local agencies to help facilitate the achievement of the Community Benefits Requirements.

3 BID SUBMISSION REQUIREMENTS

Bid submission requirements in respect of the Board's CB requirements are summarised at 1.3 above. The following sets out the detail required.

3.1 Employment and Skills Plan: Construction Phase

Bidders are required to complete an Employment and Skills Plan (ESP) covering the employment and skills areas from the table below (as extended by the Bidder to cover the full period of construction). For further information on each of these categories, Bidders are referred to Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" (and Appendix A in particular).

Benchmarks are provided in 2.1 and constitute minimum outputs for Bidders' ESPs. Bidders are to use their own judgement as to what outputs beyond those minimums they consider are ultimately achievable in relation to the Project.

The output figures for the ESP should indicate the minimum outputs for each month against the relevant employment and skills areas. The "Summary" columns are also to be completed. Guidance on the employment and skills areas is also included within Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" *(and Appendix A in particular).*

Bidders are required to provide an unequivocal statement alongside their ESP that, if appointed, they will be contractually bound to deliver against what they have set out in the ESP, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement.

TEMPLATE EMPLOYMENT AND SKILLS PLAN (ESP)

Employment and Skills areas		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Summ No
1.	Work Placement (16-19 years) – persons													16
2.	Work Placement (14-16 years) – persons													4
3.	Curriculum Support Activities – individual engagement													14
4.	Graduates – persons													3
5.	Apprentice Starts - persons													11
6.	Existing apprentices - persons													10
7.	Apprentice Completions - persons													3
8.	Jobs Advertised Through proximate Employment Vehicles - number													7
9.	N/SVQ Starts for Subcontractors - persons													21
10.	N/SVQ Completions for Subcontractors - persons													18
11.	Training Plans for Subcontractors - number													5
12.	Supervisor Training for Subcontractors - persons													10
13.	Leadership and Management Training for Subcontractors - persons													9
14.	Advanced Health and Safety Training for Subcontractors - persons													11

Employment and Skills Method Statement

Bidders are also required to provide a detailed CB Method Statement setting out how they intend to implement the employment and training requirements of the Board and to deliver the ESP. The CB Method Statement should clearly set out the proposed approach for delivering skills development against the employment and skills areas, covering the following:

- who in the organisation will be responsible for managing the training scheme and overseeing the proposals?
- which education and training providers will be involved with the delivery of the ESP?
- what types of accredited and non-accredited training are expected to be offered and who are expected to be the main beneficiaries of this training?
- which trades or occupational areas is it envisaged will be offering apprenticeship opportunities?
- what types of apprenticeships are expected to be offered (i.e., traditional programme led, advanced etc)?
- how will the target outputs as set out in the ESP be delivered?
- how will health and safety issues be managed?
- what actions will be taken to ensure the support of trade contractors and sub-contractors working on the project?
- how will compliance be managed and monitored with respect to the organisation's trade contractors and sub-contractors?
- how will the target outputs as set out in the ESP be delivered?
- how will health and safety issues be managed?
- How will monitoring of delivery of Community Benefits and reporting to the Board under Clause 73 of the NPD Project Agreement be undertaken?
- What financial consequence the bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against the ESP.

Bidders are referred to Construction Skills in Scotland's document "*Client Based Approach to developing an Employment and Skills Strategy on construction projects in Scotland*" *(and Appendix A in particular) for* further information and Appendix B of that document in particular.

3.2 Employment and skills plan: operational phase

Bidders should repeat the process outlined for the construction phase in respect of the operational phase (though the table should be completed not on a monthly basis but on an annual basis).

Note: The desired/expected outputs set out at Section 2.1 are for the Construction Phase only. The Board does not have desired/expected output figures for this element and it is a matter for bidders to consider, as against their specific approach to delivery.

3.3 Supply Chain Development: SMEs & Social Enterprise

Each Bidder must complete two separate CB Method Statements in accordance with the detail set out below, detailing what it proposes to do to meet the Board's SME and Social Enterprise supplier development objectives in respect of both the Construction Phase and Operational Phase.

Bidders will be expected to have identified a source for any additional resources they will require to deliver the SME and Social Enterprise development, so that the requirements can be met with no additional costs to the Board. As part of the bid preparation, the Board expects Bidders to have contacted the agencies listed in Section 3.6 or other similar agencies of their choice.

Bidders are required to provide an unequivocal statement in the CB Method Statement that, if appointed, they will be contractually bound to deliver against what they have set out in their CB Method Statements, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement and the financial consequence the Bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against what they have set out.

The Small to Medium sized Enterprises / Social Enterprises CB Method Statements must respond to the following questions *(NOTE: Separate responses are to be provided for the Construction Phase and the Operational Phase):*

1.	Describe the activities that you will undertake to identify SMEs and Social Enterprises and assess each sector separately in their capacity to deliver works, services or supplies, that are required for all contracts in relation to the Project.
2.	Please quantify, both in hours and value, the commitment of you and your sub-contractors, in relation to this project, to the engagement with SME / SEs in specific capacity building support and in the development of partnership working and outline your overall approach.
3.	How will you ensure that your sub-contractors make all opportunities available to SMEs and Social Enterprises?
4.	Describe the anticipated outcomes for SMEs and Social Enterprises from the activities you have outlined in response to Q2 and Q3 and how would you monitor and assess the social and economic impact of your engagement with SMEs and Social Enterprises?
5.	How you will monitor delivery of Community Benefits and report to the Board under Clau

3.4 Other Community Benefits

Bidders must provide a CB Method Statement setting out any other Community Benefits they are willing to deliver (see Section 2.4) and their proposals to monitor delivery of Community Benefits and report to the Board under Clause 73 of the NPD Project Agreement **(note: this CB Method Statement will not be scored)**.

Bidders are required to provide an unequivocal statement in the CB Method Statement that, if appointed, they will be contractually bound to deliver against what they have set out in their CB Method Statements, in accordance with the terms and conditions set out in Clause 73 of the NPD Project Agreement and the financial consequence the Bidder proposes to include, for the purposes of clause 73 of the NPD Project Agreement, for failure to deliver against what they have set out.

3.5 FOR INFORMATION ONLY – SUPPORT AGENCIES

POSSIBLE RESOURCES

Note: Any action taken by the Board to facilitate relationships between Project Co and individuals/firms/agencies does not imply and should not be deemed to imply that they or its agents consider the individual, firm or agency as suitable for engagement by Project Co and/or its supply chain. Within this context, the Board will work with local agencies to help facilitate the achievement of the Community Benefits Requirements.

3.6.1 Recruitment and Training

Agency	Remit	Contact	Position	Contact No.	Email	Web
Sector Skills CLIENTs :						
Construction Skills	Sector Skills for construction main trades. Advice on training and funding	Hugh McCafferty	Operations Manager	[redacted]	Hugh.McCafferty[redacted]	http://www.constructionskills.net/
EU Skills	Sector Skills for Utilities, Gas and heating plumbers. Advice on training & funding	Jim Brown	Skills Director Scotland	[redacted]	jim.brown@[redacted]	www.euskills.co.uk
Summit Skills	Sector Skills for Electrical, Plumbing & Building Services. Advice on training and funding	Ian Stirrat	Operations Manger	[redacted]	ian.stirrat@[redacted]	http://www.summitskills.org.uk
Edinburgh Partnership	Its role is to lead joint activity on issues facing the city and those living and working here	Saty Kaur		[redacted]	satvinder.kaur@[redacted]	http://www.edinburghnp.org.uk

3.6.2 SMEs

Agency	Remit	Contact	Position	Contact No.	Email	Web
Federation of Small Businesses	FSB Scotland campaigns for a better social, political and economic environment to work, learn and do business in.	Stewart Farmer	Regional Organiser (West of Scotland)	[redacted]	stewart.farmer[redacted]	http://www.fsb.org.uk
Scottish Enterprise	SE help ambitious businesses in Scotland to grow and become more successful. SE support key industry sectors and develop the business environment to enhance Scotland's economy	Jillian Moffat	Senior Manager	[redacted]	jillian.moffat@[redacted]	http://www.scottish-enterprise.com

3.6.3 Social Enterprises

Agency	Remit	Contact	Position	Contact No.	Email	Web
Edinburgh Chamber of Commerce	Dynamic member-led organisation, working to support the local business community and specifically our strong network of member businesses.			[redacted]		http://www.edinburghchamber.co.uk
Ready For Business	Business support Services for SEs	Roddy Stewart	Business Adviser	[redacted]	roddy.stewart@[redacted]	http://www.ceis.org.uk
Craigmillar & District Business Association	Association was created to provide a local networking and information forum for established businesses, local entrepreneurs and individuals within the Craigmillar area.			[redacted]	info@[redacted]	www.cdba.org.uk
Community Renewal	Work in local communities to	Nigel Green	Co-ordinator	[redacted]	nigel@[redacted]	http://www.communityrenewal.org.uk/

	and small neighbourhoods to improve the wellbeing of families.		Edinburgh			
WEACT (Stevenson College)	WEACT is our community-based employability organisation offering a range of services to clients across Edinburgh.			[redacted]	weact@[redacted]	WEACT is our community-based employability organisation offering a range of services to clients across Edinburgh.

3.6.4 Other Sources

Agency	Contact No.	Address	Web
Job Centres:			
New Town Edinburgh East Lothian North House	0845 604 3719 0845 604 3719 0845 604 3719	 20 High Riggs, Edinburgh, Lothian. Eskmills Park Station Road, Musselburgh, Midlothian.	https://www.gov.uk/contact-jobcentre-plus
Schools:			
Castlebrae Community High School Portobello High School Holyrood High School Liberton High School Gracemount High School	0131 661 1282 0131 669 2324 0131 661 5871 0131 664 7514 0131 664 7440	2A Greendykes Road Edinburgh, Midlothian, EH16 4DP 10 Duddingston Road Edinburgh EH15 1NF 55 Duddingston Road West, Edinburgh, EH15 3ST 328 Gilmerton Road, Edinburgh, EH17 7PT Lasswade Road, Edinburgh, EH16 6TZ.	http://castlebrae.org.uk/ http://portobellohighschool.org.uk http://www.holyroodedin.ik.org/home.ikm www.liberton.edin.sch.uk/ www.gracemounthighschool.co.uk/

Colleges:			
Jewel and Esk Valley College Queen Margaret University Stevenson College	0131 669 4400 0131 474 0000 0131 535 4600	Milton Road Campus, 24 Milton Road, EH15 2PP. QMU Drive, Musselburgh, EH21 6UU. Bankhead Avenue, Edinburgh, EH11 4DE.	http://www.jec.ac.uk/ http://www.qmu.ac.uk/ www.stevenson.ac.uk/

Appendix J - BIM Requirements for the Project

1 Project set up

1.1 Bidders are required to prepare a BIM Execution Plan for review by the Board. The BIM Execution Plan shall cover as a minimum the following topics:

a) Project information/description;

b) Key BIM stakeholders;

c) Goals and project objectives;

d) BIM objectives and uses;

e) Model management;

f) BIM deliverables and format;

g) Quality control system;

h) Data management; and

i) Frequency and content of BIM audits.

1.2 The BIM execution plan is to be prepared in accordance with BS 1192.

1.3 Bidders must use recognised industry BIM software platforms, suited to the various tasks to be fulfilled by both the design team and the supply chain, and establish principles of interoperability.

1.4 Bidders will provide a BIM overlay to the design team process map.

1.5 Bidders will appoint an Information Manager to see that the common data environment is set up and maintained and that the mechanism and technology for information exchange are in place and adhered to throughout the Construction Phase and the Operational Term.

1.6 Bidders will establish a through-life information management strategy including graphical and non-graphical information. Agree format for transfer of information into asset management systems will be developed, and a data classification system (eg Uniclass 2) established.

1.7 A Soft Landings implementation plan will be developed that follows the principles of the Government Soft Landings plan Policy dated September 2012.

2. Pre-construction Phase

2.1 3D visualisations, walk-throughs and images for User, Local Authority and other Stakeholder presentations and discussions at key project milestones are to be prepared.

2.2 Room layouts are to be prepared using ADB to include fully loaded 3D views.

2.3 The model is to include performance targets for key indicators, associated with associated provision in the design to measure data in operation and allow model-based comparisons between design intent and actual performance.

2.4 Data outputs in COBie format are to be prepared at key stages aligned to the process map, at a Level of Detail matching the stage requirement.

2.5 Specifications are to be based on a system that allows direct links between spatial BIM Models and the accompanying specifications and object attributes.

2.6 Read-only access to the BIM model gratis and within 24 hours is to be made available at the Board's request.

3. Construction Phase

3.1 The Board is to have read-only access to 4D construction sequencing output from model.

3.2 The model is to be regularly updated (every 2 weeks) to reflect material/component detailed selections or variations from those selected at design/tender stage.

3.3 Read-only access to the BIM model gratis and within 24 hours is to be made available at the Board's request.

4. Operational Term

4.1 The model shall be maintained throughout the Operational Term to reflect all planned maintenance and lifecycle works and modification should be made to reflect all changes implemented under Schedule 16 Change Protocol.

4.2 Read-only access to BIM model, gratis, and within 24 hours is to be made available at the Board's request.

4.3 Asset Management software is to be discussed with the Board but data should be held in recognised interchange format (e.g. COBie) to allow interoperability between recognised facilities management (CAFM) packages, recognised asset management packages and the BIM model.

5. Handback

5.1 Project Co will hand over ownership of the model to the Board at the Expiry Date.

5.2 At the Expiry Date, the model is to be fully updated model to reflect all changes during the Operational Term including specification details, operation and maintenance requirements and residual design life of all components and assemblies.

5.3 The on-going maintenance and replacement information is to be in a format to be agreed with the Board.

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5.4 Project Co shall provide training in the operation of software to the Board.

Appendix K – Certificate of Acceptance of Contractual Terms

CERTIFICATE OF ACCEPTANCE ON CONTRACTUAL TERMS

As per paragraph 2.2.2 of Appendix C of Volume 1 of the ISFT, the Board requires that this certificate is signed by the Bid Director/Project Co lead, the D&C lead and the FM lead to acknowledge acceptance of the terms of the Final Tender (Bidder Specific) NPD Project Agreement, the Payment Mechanism and the Service Level Specification.

1. We, being [Project Co], [D&C] and [FM] can confirm that the terms of the following documentation (where relevant) are acceptable to us:

1.1 Final Tender (Bidder Specific) NPD Project Agreement as set out in Volume 2 of the ISFT;

1.2 Payment Mechanism as set out in Volume 2 of the ISFT;

1.3 Service Level Specification as set out in Volume 3 of the ISFT; and

1.4 Board's Construction Requirements as set out in Volume 3 of the ISFT.

2. We confirm that any matters which we have raised as a result of the due diligence we have carried out during the Dialogue Period have been raised and discussed with the Board during the Dialogue Period and that such matters have been included within [Insert name of Bidder]'s Final Tender submission.

_____ in capacity of _____

Signature of [Project Co]

duly authorised to act on behalf of _____

_____

_____

_____

_____

_____

Date

in the presence of _____

_____ Witness

_____

_____ Full name

_____

_____ Address

_____ in capacity of _____

Signature [D&C]

duly authorised to act on behalf of _____

_____

_____

_____

_____

_____

_____

Date

in the presence of _____

_____ Witness

_____

_____ Full name

_____

_____ Address

_____ in capacity of _____

Signature [FM]

duly authorised to act on behalf of _____

_____

_____

_____

_____

_____

_____

Date

in the presence of _____

_____ Witness

_____

_____ Full name

_____

_____ Address

Appendix L – Petrol Station Site

The Board can confirm the Petrol Station Site was purchased by the Board on Wednesday 27 November 2013. The Petrol Station Site is as outlined in pink on the attached Plan 2.

Bidders shall include the landscaping of the Petrol Station Site in their Final Tender landscaping proposals. The Board can confirm that Bidders may use the Petrol Station Site during the Works for Construction Traffic only. The Petrol Station landscaping proposals and construction methodology will not be scored in the Final Tender Evaluation, however the bidders proposals should meet the Boards requirements.

Ground Investigations will be undertaken by the Board at the Petrol Station Site as early as practically possible with the anticipated issue of the Factual Report in March 2014. The scope and appointment of the Ground Investigation will be clarified in consultation with all Bidders prior to commencement of the Ground Investigation.

The Ground Investigations will be designed and managed by the Board's environmental consultant who will produce a Phase 1 and Phase 2 contaminated land risk assessment based on a proposed public open space land use. The reports will represent the baseline site conditions and be submitted to the bidders for review. The Ground Investigation Contractor will provide a letter of reliance for the Petrol Station Site Ground Investigation works only. A letter of reliance will not be provided for the reports produced by the Board's environmental consultant.

The preferred bidder will be required to obtain necessary planning permission from The City of Edinburgh Council for the proposed temporary and permanent land uses at the Petrol Station Site e.g. potential construction traffic route during construction and final reinstatement as an area of public open space within the Board's retained estate. The preferred bidder shall submit appropriate documentation to obtain such permissions including, but not limited to, risk assessments, a detailed remedial options appraisal and remediation statement which shall be produced in line with Part IIA of the Environmental Protection Act (1990) and follow best practice guidelines detailed in CLR11 (2004), BS10175:2011+A1:2013 and PAN 33.

Remediation proposals shall be agreed with the Board and their Environmental Consultant prior to submission to The City of Edinburgh Council and if necessary, SEPA.

Any remediation undertaken by Project Co during construction phase shall be independently verified by the Environmental Consultant and certified in accordance with the City of Edinburgh Council Planning Requirements and Regulations.

Additional Completion Criteria will be added to Appendix B (Completion Criteria) of Schedule Part 10 (Outline Commissioning Programme) to reflect the Petrol Station Works, the Petrol Station Completion Criteria are included in this clarification.

It is expected the work will be completed within the overall construction timetable, and therefore the Petrol Station Works will form part of the main Completion Criteria, however a fall back option of a phase 2 completion can be considered in the preferred bidder to financial close period, only if the Ground Investigation indicates more onerous ground conditions.

Provisional Sum

A provisional sum of £500,000 (excluding VAT) for undertaking the scope defined in this clarification shall be included to cover.

1. **Risk Assessment and Reporting:**
   - Production of contaminated land interpretive reports and risk assessments (Phase 1 and Phase 2).
   - Production of a remediation options appraisal report and remediation strategy (Phase 3).

2. **Discharge of Planning Conditions imposed by The City of Edinburgh City Council relating to:**
   - The Demolition of any existing buildings.
   - The proposed temporary land use, e.g. site access road.
   - The final public open space land use as part of the wider planning application.

3. **Remediation works:**
   - Potential removal of hydrocarbon free product and impacted soils/groundwater (if encountered).
   - Supervision of the above.
   - Provision of an inert environmental capping layer and geo-membrane.
   - Independent validation and inspection.
   - Or other viable remediation method that meets the planning requirements

The Board confirms the Provisional Sum includes the provision of an inert environmental capping layer and geo-membrane, however landscaping is not included.

The above scope, although based on the Parson Brinkerhoff Remediation Reports attached to this clarification, is indicative only and will be refined during the risk assessment process. It is dependent on the nature of the ground conditions encountered during the Petrol Station Site Ground Investigation works.

The Provisional Sum for the Petrol Station Works will be reviewed by the Board and the preferred bidder during the preferred bidder to Financial Close stage. This review will take place on an open book basis and following the issue of the Petrol Station Site Ground Investigation and subsequent preferred bidder discussions with the City of Edinburgh Council on the extent of any remediation that may (or may not) be required. The provisional sum will be adjusted in accordance with the attached Open Book Accounting Strategy and will be jointly agreed between the preferred bidder and the Board whilst also demonstrating value for money for the Board.

Volume 4 - Data Room – for information only

Copies of Parson Brinkerhoff Remediation reports

Copies of historical ground investigations reports provided to the Board during purchase of the Petrol Station Site will be available for bidder information only.

Mott MacDonald Risk Assessment and Remediation Options Appraisal Reports

A review and assessment of the information contained within the Parsons Brinkerhoff Report and other reports provided to the Board by Esso Petroleum Company Limited during purchase of the Petrol Station Site has been undertaken by Mott MacDonald in view of the proposed public open space land use. These reports are for information only.

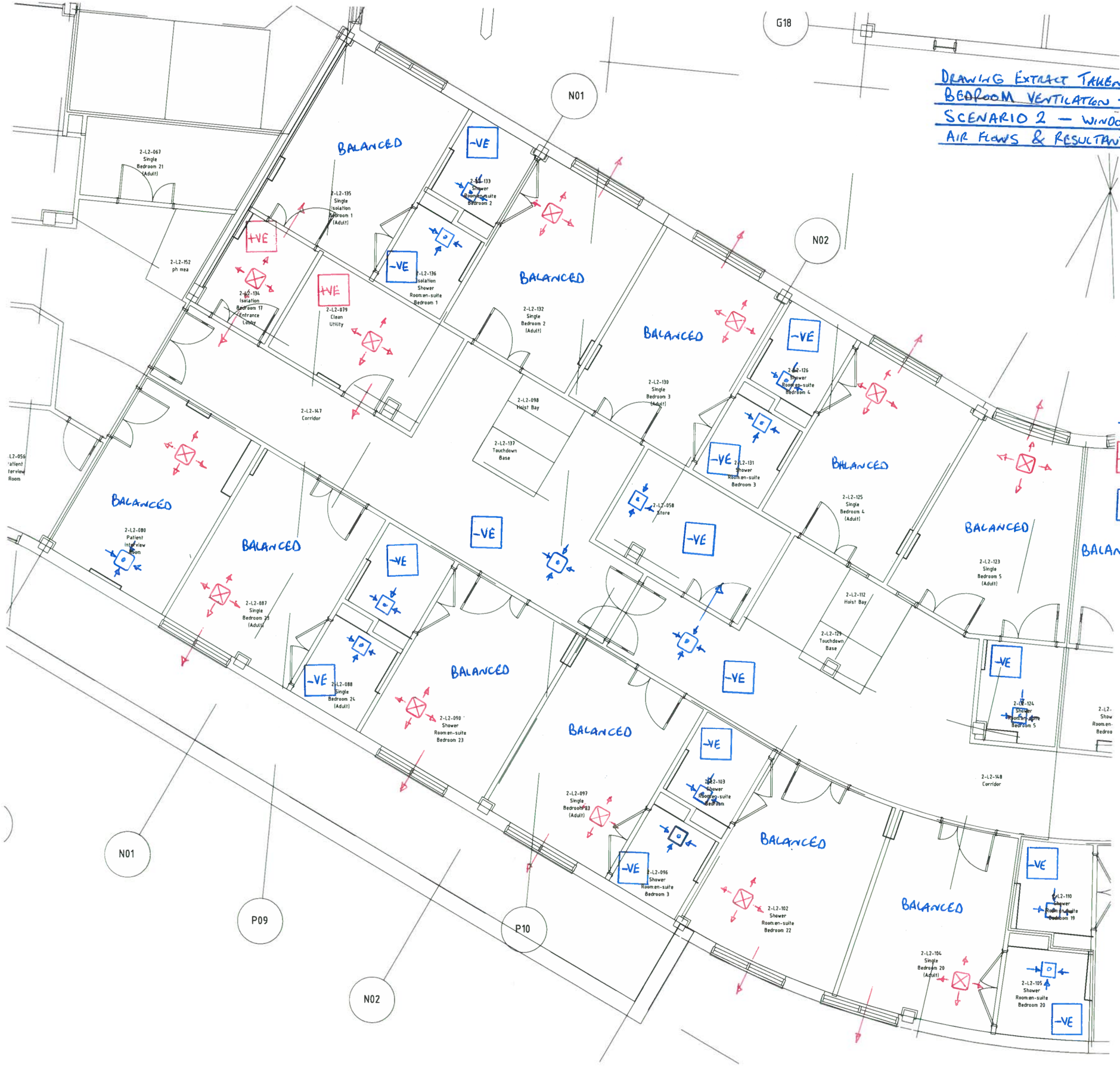
DRAWING EXTRACT TAKEN FROM LEVEL 2
~~BEDROOM VENTILATION~~ - MECHANICAL ONLY
SCENARIO 1 - WINDOWS CLOSED
AIR FLOWS & RESULTANT ROOM PRESSURES

LEGEND
- SUPPLY GRILLE
- EXTRACT GRILLE
- AIR FLOW.
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE
- BALANCED – BALANCED ROOM PRESSURE

G1547/57)SK01
RHSC & DCN

A43133429

DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 2 – WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES

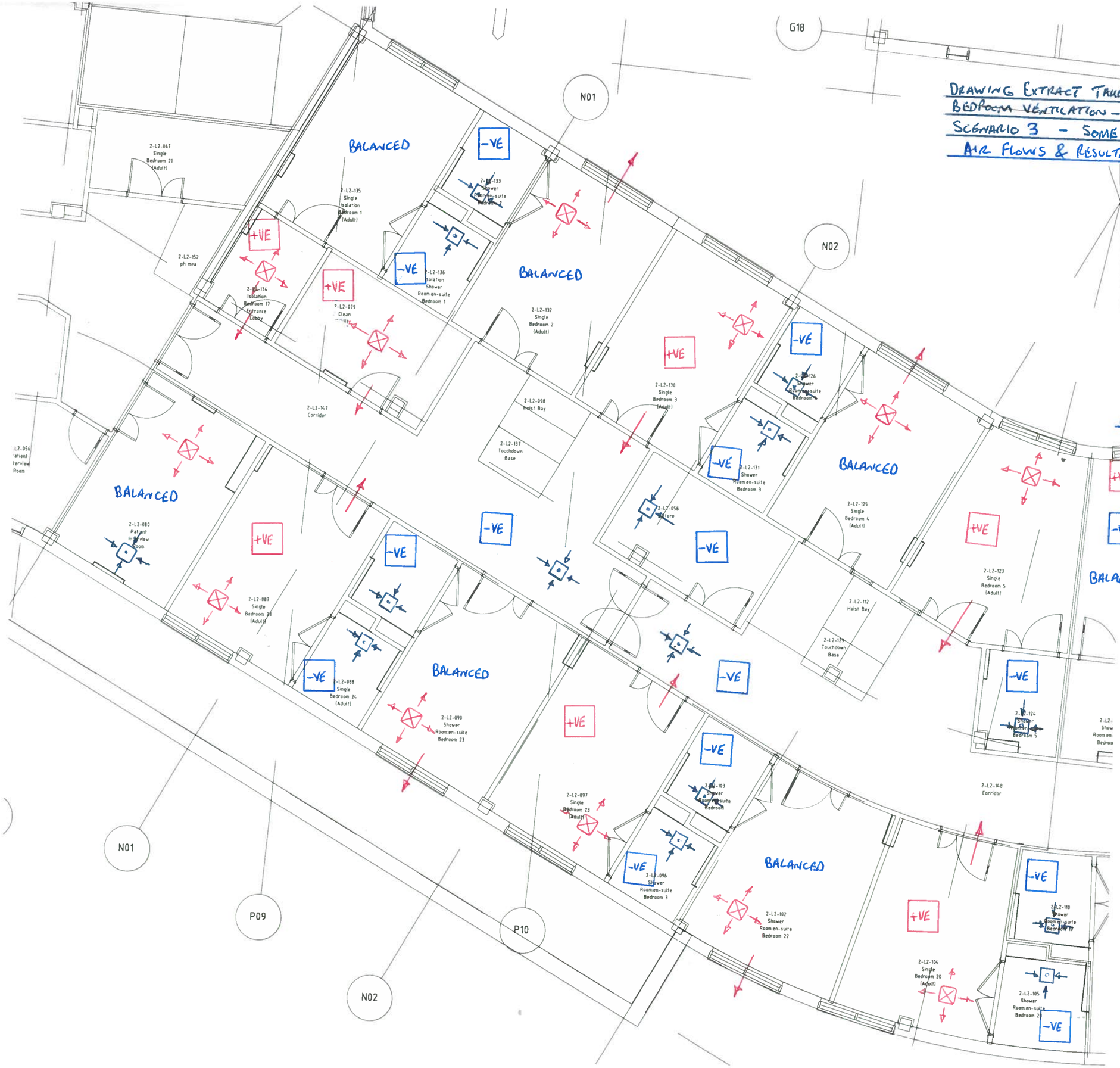


LEGEND.

- ⊠ – SUPPLY GRILLE
- ⊡ – EXTRACT GRILLE
- → – AIR FLOW
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE
- BALANCED – BALANCED ROOM PRESSURE

G1547/(57)SK02
RHSC & DCN.

DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 3 – SOME WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES



LEGEND

- ⊠ – SUPPLY GRILLE
- ⊡ – EXTRACT GRILLE
- → – AIR FLOW.
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE.
- BALANCED – BALANCED ROOM PRESSURE.

G1547/(57)SK03
RHSC & DCN.

A43133429

RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

1.0 Introduction

We have been asked to review the air movement within the single bedrooms under various ventilation scenarios.

1. Windows and trickle vents closed, no natural ventilation, mechanical ventilation only provided to the bedrooms.

2. Windows and window trickle vents open, natural and mechanical ventilation provided to the bedrooms.

3. Some of the windows and window trickle vents open and some closed, mixture of natural and mechanical ventilation to the bedrooms.

2.0 Interpretation of SHTM 03 Ventilation for Healthcare Premises

A single room within Appendix 1 : Table A1 : Recommended air-change rates is given under the ventilation column as supply/extract/natural, with 6 ac/hr and room pressure as zero or negative. The single room WC from the table is 3 ac/hr and room pressure is negative.

Current bedroom ventilation design is supply into the room at 4 ac/hr with opening windows and trickle vents to provide natural ventilation, this gives a balanced room pressure as long as the window is open.

The single bedroom WC extract has been enhanced to 10 ac/hr and the room pressure is negative.

3.0 Ventilation Scenario's

Scenario 1

1. Bedroom is positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows to the corridor via doors.
4. Corridor is provided with extract ventilation, pressure is balanced.

Scenario 2

1. Bedroom has balanced pressure.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows and trickle vents.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms and other rooms.

RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

Scenario 3

1. Bedrooms with open windows have balanced pressure and bedrooms with closed windows are positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows or through the bedroom doors if the windows are closed.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms.

Refer to Appendix 1 for the Air Flow and Resultant Room Pressure drawings.

The original reference design as detailed within the Environmental Matrix is as follows:-

Bedroom - Supply 4Ac/Hr & Room Pressure Positive.
WC – Extract 10Ac/Hr & Room Pressure Negative.

4.0 Conclusion

Reviewing the three air flow and resultant room pressure scenario drawings G1547/(57)SK01-SK03:

When the windows and trickle vents are utilised for natural ventilation the bedroom pressure is balanced and the corridor becomes negative.

If some of the windows and trickle vents are closed, these bedrooms will become positive and the bedrooms with open windows again will be balanced, where the corridor is negative.

Should all the bedroom windows and trickle vents be closed, the bedroom pressure is positive and the corridor shall be balanced as the corridor extract rate will match the supply air coming from the bedrooms via their doors.

The window trickle vents should be left open when the rooms are occupied, this will ensure that the bedroom pressure is balanced.

By utilising the proposed mixed mode ventilation proposal for the bedrooms, ie. opening windows and trickle vents with the supply air reduced from 6Ac/Hr to 4Ac/Hr direct into the bedroom, this will provide the most energy efficient solution for the space.

We believe that we have complied with the reference design concept as detailed within the original Environmental Matrix.

1 Introduction

1.1 The following is a supplementary response by Multiplex Construction Europe Limited ("**MPX**") to the questions 1 to 16 ("**Questions**") set out in Annex 1 to Request for Information Number 2 relating to RHCYP and DCN issued by the Scottish Hospitals Inquiry under cover of letter dated 6 August 2021 (reference Edin/Vent/2/JA).

1.2 As agreed with the Scottish Hospitals Inquiry, MPX provided a preliminary response to the Questions on 8 October 2021, with a supplementary response following by 5 November 2021.

1.3 This supplementary response is accompanied by an updated annotated version of the "*Ventilation Spreadsheet*" setting out MPX's comments on the "*Ventilation Spreadsheet*", together with the documents referred to therein. To assist the Inquiry, MPX has treated each item ID noted on the "*Ventilation Spreadsheet*" as a discrete matter and for each item has provided copies of all documents referred to by reference to the item ID number.

2 MPX response to each of the Questions

2.1 "*1. Do you agree that the design, installation and operation of the ventilation systems for the RHCYP/ DCN should have complied with the Scottish Health Technical Memorandum 03-01 ("SHTM 03-01)?*"

2.1.1 MPX agrees that the design and installation of the ventilation systems for the RHCYP and DCN should be consistent with *SHTM 03-01,* subject to the qualifications noted in response to question 2 below.

2.1.2 As MPX is not the operator of RHCYP and DCN it does not comment on the operation of the ventilation systems.

2.2 "*2. If the answer to question 1 is "no", please explain why.*"

Executive Summary

2.2.1 Whether the design and installation of the ventilation system was to comply with SHTM 03-01, is a function of the contractual arrangements between the parties.

2.2.2 The Project Agreement between NHSL and IHSL, and Construction Contract between IHSL and MPX, stipulate that it was not necessary for the ventilation system to be consistent with SHTM 03-01 where a different position was required, agreed or permitted in:

2.2.2.1 the Project Agreement,

2.2.2.2 the Board's Construction Requirements,

2.2.2.3 the Room Data Sheets (which includes the Environmental Matrix),

2.2.2.4 the outcomes of the Review Procedure,

2.2.2.5 a Change or a derogation, and

2.2.2.6 in the Settlement Agreement entered into by NHSL on 22 February 2019.

2.2.3 This is considered in more detail below:

Project Agreement and the Board's Construction Requirements

2.2.4 Clause 5.2.4 of the Project Agreement provides that:

"*Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed…. except to the extent expressly stated to the contrary in the Board's Construction Requirements or the Service Level Specification, in compliance with all applicable NHS Requirements*" (our emphasis)

2.2.4.1 "**Project Operations**" is defined as "*the carrying out of the Works, the carrying out of Project Co's Pre-Completion Commissioning and Project Co's Post-Completion Commissioning, the management and provision of the Services and the performance of all other obligations of Project Co under this Agreement from time to time*"

2.2.4.2 "**NHS Requirements**" is defined as meaning: "*Health Building Notes and Health Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements*"

2.2.4.3 "**Board's Construction Requirements**" are defined as meaning: "*requirements of the Board set out or identified in Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters) as amended from time to time in accordance with the terms of this Agreement*"

2.2.5 Accordingly, under Clause 5.2.4 of the Project Agreement, the ventilation systems were required to comply with Health Technical Memoranda, and so SHTM 03-01, but only to the extent that NHSL did not state an express contrary requirement in the Board's Construction Requirements, as amended or which became amended.

2.2.6 Further, paragraph 2.3 of the Board's Construction Requirements ("**BCRs**") states (again our emphasis):

2.2.7 "*In addition to the standards listed in paragraph 2.4 of this Sub-Section C of the Board's Construction Requirements, unless the Board has expressed elsewhere in the Board's Construction Requirements, a specific and different requirement, the Facilities shall comply with but not be limited to the provisions of the NHS Requirements as the same may be amended from time to time:*

…(h)HTM and SHTM"

2.2.7.1 "**NHS Requirements**" is additionally defined in the BCRs as being: "*the requirements defined in paragraph 2.3 of this Schedule Part 6 Section 3 Sub-Section C as the same may be amended from time to time*".

2.2.8 Paragraph 2.3 of the BCRs therefore echoes clause 5.2.4 of the Project Agreement and reiterates that if NHSL has expressed elsewhere in the BCRs a specific and different requirement, then that specific requirement is to be complied with and there is no obligation to comply with any differing general requirement in the NHS Requirements (including SHTM 03-01).

2.2.9 This makes commercial sense as SHTM 03-01 is a general design guidance document containing options, whereas NHSL provided bespoke requirements which met their clinical and commercial needs for this particular hospital.

The Room Data Sheets, which include the Environmental Matrix

2.2.10 A key part of the Board's Construction Requirements was the Room Data Sheets.

2.2.11 "**Room Data Sheets**" are defined in the Project Agreement as having "*the meaning given in Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters)*". Section 6 then states:

"*The Room Data Sheets are the Room Data Sheets as set out on the disc in the Agreed Form identified and executed as Appendix 1 (RDS Pack) and Appendix 2 (Environmental Matrix) of Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) of this Agreement, referred to in and forming part of this Agreement*"

2.2.12 The Room Data Sheets are accordingly formed of two parts: (1) the Room Data Sheets themselves, which are provided as Appendix 1 to Section 6, which we will refer to as "**RDS**"; and (2) the Environmental Matrix which is Appendix 2.

2.2.13 The RDS included in the Project Agreement are modelled on generic Activity Database Sheets (also known as ADB). The RDS included in the Project Agreement, however, are not these generic ADB sheets; rather, they have been modified to reflect NHSL's specific requirements. See by way of example MPX's response in relation to Item ID 2.7 and 2.11 and the specific RDS requirements for single bedrooms and Multibed wards.

2.2.14 In terms of the Environmental Matrix this is defined in the BCRs as being (our emphasis):

"*Means the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department / unit / space / area as set out in Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) (as varied, amended or supplemented from time to time in accordance with the Project Agreement)*"

2.2.15 Reference is also made to Item 1 of the Guidance Notes to the Environmental Matrix, which states: "*This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets*".

2.2.16 Page 3 of the Project Agreement Environmental Matrix is then titled: "*Room Function Reference Sheet*" and states: "*The following table details reference templates which are used to populate cells*

within the environmental matrix. Refer to individual department sheets for individual room environmental conditions". In relation to ventilation this table provides the type, supply air changes per hour ("ac/hr"), extract ac/hr, relative pressure, and minimum filtration required for each room type. This then being then further expanded within the matrix by reference to each department.

2.2.17 The Room Data Sheets, being both the RDS and Environmental Matrix, contained NHSL's specific requirements, which took precedence to the general guidance position as stated in SHTM 03-01. In this regard, reference is made to Clause 5.2.4 of the Project Agreement and paragraph 2.3 of the BCRS, discussed above, together with:

paragraph 2.5 of the BCRs which states (our emphasis):

"*In certain instances, NHS publications include a number of options or alternative solutions. Where the Board has defined their preference specifically, Project Co shall adopt these preferences as a mandatory requirement. Where no Board preference is stated, Project Co shall engage the Board in the design development process to seek and incorporate the Board's preference within the Facilities*"; and

paragraph 8 of the BCR which states (our emphasis):

"*Project Co shall provide the Works to comply with the Environmental Matrix.*"

2.2.18 It is also important to note than an Environmental Matrix was issued by NHSL to bidders as part of the Invitation to Participate in Dialogue documentation ("**ITPD**") dated 11 March 2013.

2.2.19 The ITPD defined this Environmental Matrix as:

"*Means the Environmental Matrix, which details the room environmental condition requirements of the Board required within each department / unit / space / area. The title is Reference Design Envisaged Solution - RHSC / DCN Environmental Matrix version third issue as set out in Appendix C of this Section 3 (Board's Construction Requirements) of Schedule Part 6 (Construction Matters) (as varied, amended or supplemented from time to time in accordance with the Project Agreement)*"

2.2.20 The ITPD also included the same requirement that:

"*Project Co shall provide the Works to comply with the Environmental Matrix*".

2.2.21 Further, bid submission requirement C8.3 of the ITPD stated:

"*Whilst bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis*".

2.2.22 The Environmental Matrix produced with the ITPD was identified as being produced by Hulley & Kirkwood, a well-known firm of consulting engineers. As with the Project Agreement Environmental Matrix, it contained specific ventilation requirements for each room type. In compliance with the bid submission requirement C8.3, MPX confirmed no changes were currently proposed to the Environmental Matrix, as part of their bid submission (see Document 2.7.2).

2.2.23 During the Preferred Bidder period, NHSL's specific requirements were then further discussed and agreed prior to Financial Close.

2.2.24 Following Financial Close, the Room Data Sheets were then developed in conjunction with NHSL and approved and agreed by them as part of the Review Procedure discussed below; with Project Co being obliged to demonstrate compliance with the final approved versions. Reference is made to paragraph 3.6.3 of the BCRs which provide *inter alia* -:

"*Project Co shall provide fully developed Room Data Sheets submitted to the Board as Reviewable Design Data for review by the Board in accordance with Schedule Part 8 (Review Procedure) and Clause 12.6 (Board design approval) of the Project Agreement.*

As part of the commissioning process, Project Co shall be responsible for demonstrating compliance with the requirements included within the Room Data Sheets."

2.2.25 This requirement to comply with NHSL's specific approved requirements, as opposed to the general guidance position in SHTM 03-01, is also confirmed by paragraph 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, which state:

2.1.4: "*All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets*"

2.1.32: "*Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix*"

2.2.26 Accordingly, with reference to the terms of Question 1, the design and installation of the ventilation systems for the RHCYP / DCN was to comply with SHTM 03-01, except where a differing requirement was expressed by NHSL in the Board's Construction Requirements and/or required by the Room Data Sheets, as reviewed and approved by NHSL.

The Review Procedure

2.2.27 It was not, however, just the Room Data Sheets which were reviewed and approved by NHSL - all aspects of the ventilation design were.

2.2.28 Reference is made to Schedule Part 8 (Review Procedure) and Clause 12.6 of the Project Agreement under which all aspects of the Reviewable Design (including the Room Data Sheets), were reviewed by NHSL and became, through that process, what Project Co / MPX was required to build.

2.2.29 NHSL therefore played an active role in the design development, this approach being confirmed by the final sentence of paragraph 2 of the BCRs:

"*The Board is keen to actively participate in the design process. To facilitate this, Project Co shall engage the Board in the design and in particular the Reviewable Design Data*"

2.2.30 Paragraph 3 of Schedule Part 8 sets out the Grounds of Objection NHSL could make in relation to Submitted Items, identifying that they may make comments on the ground that an item was not in accordance with: (a) their requirements in the BCRs; and/or (b) Project Co's Proposals.

2.2.31 Paragraph 4 of Schedule Part 8 then sets out the effect of the review, with paragraph 4.1 stating (our emphasis):

"*Any Submitted Item which is returned or deemed to have been returned by the Board's Representative endorsed "no comment" (and in the case of Reviewable Design Data, endorsed "Level A - no comment")* *shall be complied with or implemented (as the case may be) by Project Co*"

2.2.32 With paragraph 4.3.1 then stating that (again our emphasis):

"*Project Co shall where the Board's Representative has endorsed the Submitted Item "Level B-proceed subject to amendment as noted",* *either proceed to construct or proceed to the next level of design of the part of the Works to which the Submitted Item relates* *but take into account any amendments required by the Board's Representative in his comments*"

2.2.33 Accordingly, once a design document was approved as either Level A or B, Project Co / MPX were under a positive obligation to proceed in accordance with it.

2.2.34 Indeed, under Clause 12.6.1 of the Project Agreement, Project Co was not permitted to commence construction until: "*it is confirmed by the Board's Representative that Project Co. is entitled to proceed with construction in accordance with paragraph 3.3. of Schedule Party 8 (Review Procedure)*"

2.2.35 Overall, therefore, approved items became part of the BCRs and became what MPX were obliged to build. All the individual parts of the ventilation design which were separately approved, also fed into the Room Data Sheets which (as noted above), were themselves approved and formed the M&E Completion Criteria.

2.2.36 As such, where NHSL's approved specific requirements differed from SHTM 03-01, MPX were obliged to comply with the NHSL's requirements, not any contrary general guidance in SHTM 03-01

2.2.37 Again, this interpretation makes commercial sense. It was a feature of the contracts for the construction of this complicated facility that Project Co, MPX and NHSL would work together in reviewing and approving the design. This collaborative approach was necessary to try to make sure that what was built matched NHSL requirements for provision of the clinical services from the facility. NHSL were assisted in this by clinical and technical teams. This approach allowed NHSL to retain the ability to specify something which was different from the NHS Requirements, if it thought that it suited its specific requirements to do so.

2.2.38 If as a result of the review procedure NHSL required Project Co to build something that did not comply with an NHS Requirement (including SHTM 03-01), then that was what MPX was obliged to do.

2.2.39 Throughout the review procedure, MPX sought to engage and work with NHSL in a collaborative manner. Extensive dialogue was held between MPX and NHSL during the review procedure. MPX understands that as part of its review NHSL sought input from clinicians and healthcare professionals as to the designs proposed.

Changes and Derogations

2.2.40 Together with any express contrary requirements stated in and/or approved under the Project Agreement and BCRs, NHSL also had the power to expressly alter their requirements regarding what was to be constructed, by way of a Change or a derogation.

2.2.41 Reference is made to clause 33 of the conditions of the PA, which refers to Schedule Part 16 for Changes; and paragraph 2.7 of the BCRs for derogations.

2.2.42 Changes and derogations were a further way NHSL expressed their specific requirements. They instructed changes to the BCRs and were capable of altering what was to be constructed and whether this was required to follow the general position within NHS Requirements including SHTM 03-01.

Settlement Agreement

2.2.43 Finally, the Settlement Agreement and Supplemental Agreements between NHSL and IHSL and IHSL and MPX dated 22 February 2019 ("**SA**"), also inform the position as to the applicability of SHTM 03-01.

2.2.44 Under the SA, NHSL agreed to resolve certain heads of claim (known as the Released Claims). These Released Claims include any claims arising out of or connected with: (1) the Dispute; (2) the underlying facts of the Dispute; (3) any act, omission, breach, default, negligence or failure to comply with the Construction Contract in relation to the Dispute; and (4) the Agreed Resolution.

2.2.45 The "**Dispute**" is defined in the SA as: (i) all claims, disagreements and disputes arising out of or in connection with the matters which are set out in the column entitled "Dispute" in the Technical Schedule; and/or the Post Completion Disputed Works.

2.2.46 The Agreed Resolution is the technical solution required to resolve the Dispute as described in the Technical Schedule.

2.2.47 A number of the items contained within the Technical Schedule relate to ventilation. By way of example reference is made to MPX's response in relation to the Public Inquiry's Item IDs 2.7, 2.9, 2.11 and 3.6.

2.2.48 The SA therefore restated the Board's Requirements under the Project Agreement. Where those requirements were different from SHTM 03-01, it also confirmed that the design and construction should meet the Board's bespoke requirements as documented in the SA, not SHTM 03-01.

2.2.49 The SA was intended to capture all known technical disputes between the parties regarding the design and installation of the hospital prior to the independent tester certifying the works as complete.

2.2.50 As such, had MPX (in the opinion of NHSL and its advisors) failed to comply with the Project Agreement, and failed to adhere to SHTM 03-01, this would have been raised in the SA and an Agreed Resolution specified. Completion would not have been certified until there was an Agreed Resolution and any works required to meet that Agreed Resolution completed.

2.2.51 This was not the case. Instead, completion was certified on 22 February 2019, pursuant to Clause 17.12 of the Project Agreement. This certification confirmed that the Facilities had been completed in accordance with the Completion Criteria, as amended by the SA.

2.3 "*3. Do you agree that the nineteen issues highlighted in bold in the Ventilation Spreadsheet were issues with the ventilation system at the RHCYP/ DCN?*"

2.3.1 When responding to this question, MPX would wish to clarify that:

2.3.1.1 Under the Construction Contract and Project Agreement, as amended by the SA, in order to achieve completion of the Works, MPX had to meet the Completion Criteria, being the Completion Tests as defined in Appendix B of Schedule Part 10 of the Project Agreement.

2.3.1.2 On 22 February 2019, the Independent Tester issued:

(1) The Commissioning Completion Certificate; and

(2) The Certificate of Practical Completion

confirming the Completion Criteria had been achieved.

2.3.1.3 The items noted on the Ventilation Spreadsheet then arose in the context of a review exercise which was conducted on behalf NHSL by the Institute of Occupational Medicine ("**IOM**"). IOM were appointed some three months after completion, when MPX no longer had control of the ventilation systems. It is unclear to MPX why this validation exercise was not carried out earlier, prior to completion where the validation could have been carried out alongside Arcadis who were representing NHSL in the full inspection and approval of commissioning of ventilation systems. It was not until 3 June 2019, just one month prior to the planned opening of the Hospital, that NHSL contacted MPX and informed them that they would be carrying out an independent validation of all critical ventilation systems beginning 17 June 2019 for approximately 8 to 10 days (see Document 1.10.5).

2.3.1.4 The scope of the validation exercise initially related to only critical care areas but was thereafter expanded by NHSL to become a full review of the Hospital.

2.3.1.5 All items on the Ventilation Spreadsheet were assumed to be matters for which MPX were responsible. Such an approach does not reflect the contractual framework, or the nature of the items identified. No attempt was made to identify items which properly related to the maintenance and management of the Hospital,

and so should therefore have been addressed by Bouygues, and/or those items which were not "issues" at all. Instead, MPX were presented with lists of "issues" and required to investigate them all.

2.3.1.6 There were a number of difficulties in both the initial critical care validation and the wider full review, as a result of matters out with MPX's control, including:

- IOM did not appear to be fully or properly briefed on NHSL's requirements and therefore did not apply the applicable requirements and criteria, see for example MPX's detailed responses in relation to items: 1.10, 2.7, 2.9, 2.11, 3.6, 8.1, 8.2 and 14.2 in the Ventilation Spreadsheet;

- IOM used inappropriate measurement tools and methodologies, resulting in incorrect readings. As an example, when measuring airflow IOM did not apply correction factors in accordance with the CIBSE Commissioning Code A and BSRIA guidance. Reference is made to MPX's detailed response in relation to item 1.10 in the Ventilation Spreadsheet;

- IOM carried out the exercise and issued their results without reference to the original commissioning strategy and ventilation systems. As a result, a considerable amount of time had to be spent deciphering IOM's results before they could then be investigated by MPX. It then became apparent there were a number of errors and inaccuracies with IOM's readings;

- Issues around access. As the exercise was carried out post-completion it meant that MPX no longer had possession of the Hospital and was therefore required to liaise with NHSL to gain access and was given access as and when permitted by NHSL;

- The availability of IOM operators and NHSL's priorities impacted the progress of the exercise;

- Readings taken some time after completion may be different for a variety of reasons, including such things as fouling of filters, balancing damper changes and fan speed changes which matters fell within the remit of the operator;

- From early 2020 the facilities at the Hospital were in use by NHSL with patients being treated, meaning availability for access was limited;

- the Board were carrying out additional works post completion[1] which would itself alter some commissioning results, and interfered with the exercise,

all of which served to prolong the validation and review exercises.

2.3.1.7 Notwithstanding the time which these exercises took as a result of NHSL and IOM's approach; MPX understand that the only item raised which impacted the full migration to the Hospital, was the post completion works carried out by NHSL for which MPX had no responsibility or involvement, in particular in relation to critical care and haematology / oncology. Reference is made to the following extracts taken from publicly available documents, including NHSL's own reporting on this matter:

- On 4 July 2019**,** the Scottish Health Secretary announced that the opening of the hospital was being postponed due to *"final safety checks which revealed that the ventilation system within the critical care department of the new hospital requires further works to meet national standards"*[2]

- On 13 May 2020, NHSL recorded in an update on RHCYP: *"All actions related to water quality, drainage, electrical safety and medical gases in the RHCYP & DCN have been addressed and closed off…. All ventilation checks and improvements except the critical care and haematology / oncology ward works have been carried out…. "*[3]

- On 9 December 2020*,* NHSL recorded in an update on RHCYP: *"Following the successful migration of all DCN services and 80% of Paediatric Outpatients by July of this year, remedial and enhancement works to Paediatric Critical Care and Haematology and Oncology respectively continue to make good progress with a handover date from the contractor programmed for the end of January, 2021"*[4]

- On 20 January 2021, NHSL's Finance and Resource Committee recorded: "*Ms Goldsmith gave a verbal update. A delay with the installation of the critical care pendants was due to engineers from the supplier having to isolate due to a case of COVID-19. Ventilation works were completed and would be tested that week by the contractor and the following week by NHS Lothian. A revised complete handover date had*

1 Discussed in response to question 6 below
2 https://www.gov.scot/news/update-on-royal-hospital-for-children-and-young-people/
3 See paragraph 3.1 and 3.2 of the minutes from NHSL's Board Meeting dated 13 May 2020 "*ROYAL HOSPITAL FOR CHILDREN AND YOUNG PEOPLE AND DEPARTMENT OF CLINICAL NEUROSCIENCES – PROJECT UPDATE*" – to be found at page 118/195 of Document A
4 See paragraph 3.1 of the minutes from NHSL's Board Meeting dated 09 December 2020 "*RHCYP/DCN/CAMHS PROGRESS UPDATE*" to be found at page 328/330 of Document B

been agreed with IHSL for 8 February 2021 with an expected move in date before Easter 2021..."[5]

2.3.1.8 Reference is also made to MPX's detailed response to Item 2.7 regarding the original contract design and installation in the critical care department.

2.3.1.9 In light of the above, in this response MPX proceeds on the basis that the phrase "*issues with the ventilation system at the RHCYP / DCN*" is a reference to items raised by IOM after contractual completion.

2.3.1.10 MPX accept these items were raised by IOM, with the exception of item ID Nos:6; 7.1; 9.1; 9.2; 9.3; 9.4; 9.6; 9.7; 9.8; 9.9; 9.10; 16; 17, which MPX are not presently aware as having been notified.

2.3.1.11 MPX's position in relation to all these items is discussed in response to question 4 below and further detailed in the Ventilation Spreadsheet.

2.3.1.12 MPX note that, as far as they understand it, the only matter raised by IOM and referred to in the Ventilation Spreadsheet, which MPX understands delayed full migration, was the wider post completion changes NHSL undertook associated with item 2.7, which MPX had no involvement with or responsibility for.

2.4 "*4. If the answer to question 3 is "no", please explain why.*"

2.4.1 MPX has produced a detailed response in relation to each item in the Ventilation Spreadsheet. As can be seen from these responses, notwithstanding the difficulties caused by IOM's approach as noted above, MPX worked with NHSL and IOM to investigate each item thoroughly.

2.4.2 These investigations showed that the majority of the items raised were either incorrect (requiring no additional works); or were minor items completed and closed out by July 2019. In relation to some items MPX undertook additional works, notwithstanding the compliance of the original design and construction with a view to closing out the item in accordance with IOM's preference as soon as possible, albeit that this varied from the preferences of Arcadis, who had already signed off the works on behalf of NHSL. The result of this is that there are only a few items identified on the Ventilation Spreadsheet where further minor works were required by MPX and their sub-contractors.

2.4.3 To assist the Inquiry, the table below seeks to categorise the status of the Item IDs noted on the "*Ventilation Spreadsheet*":

5 See paragraph 46.5.1 of the minutes of the meeting of the Finance and Resources Committee held at 9.30 on Wednesday 20 January 2021 to be found at page 14/426 of Document C

	Item ID
Nothing for MPX to address	2.1; 2.5; 2.6; 2.7; 2.9; 2.10; 2.11; 3.2; 3.4; 3.5; 3.6; 4.2; 4.3; 7.2; 8.1; 8.2; 10; 14.1; 14.2; 14.3, 16, 17.
Review undertaken and confirmed by July 2019	1.1; 1.3; 1.4; 1.5; 1.6; 1.7; 2.2; 2.3; 2.4; 2.8; 3.3
Minor additional works carried out - notwithstanding compliance of original design and installation	4.1;12;
Not notified to MPX	6; 7.1; 9.1; 9.2; 9.3; 9.4; 9.6; 9.7; 9.8; 9.9; 9.10; 16; 17
Further investigation required	1.2; 1.8; 1.9; 1.10 3.1; 5, 9.5; 11; 13; 15.1; 15.218; 19

2.4.4 In relation to the items noted in the table requiring further investigation, these investigations were carried out in parallel to, and largely completed before, the post contract changes implemented by NHSL. Further, as noted above and below, MPX do not consider that these items directly impacted migration or the opening of the Hospital. Whilst MPX would refer the Inquiry to their detailed response in relation to each item in the Ventilation Spreadsheet, they would make the following comments:

- **Item ID 1.2; 3.1 - Theatre Corridors**

    - MPX were advised of IOM's concerns in relation to limited extract within the Theatre Corridors on 25 June 2019.

    - On 09 July 2019 NHSL advised that this item was to be reviewed but that *"all pressure cascades are compliant"*.

    - Various investigations were carried out and TUV SUD Limited ("TUV SUD") (MPX's designer responsible for the associated design)

    - In or around December 2019 to January 2020 4 no. mechanical extraction fans were installed within the Level 2 theatre plantroom and ducted to the theatre corridors.

    - In July 2020 works were undertaken to provide a non- fan assisted solution which enables dispersal of corridor air reducing the over pressure. The works included alterations to door control, installation of passive pressure relief dampers and minor modifications to the fire strategy. On completion of these works a report was issued by NHSL which confirmed the cascade of air from the corridor and that the doors closed unaided.

- Discussions are underway to see if a further minor improvement to extract is required, but all parties in these discussions recognise that any solution must work around the fact that all theatres are working and fully functional.

- Notwithstanding this ongoing review, MPX would note that the Hospital is now fully open. Therefore, whilst MPX will continue to liaise with NHSL and TUV SUD where necessary in relation to this item, it is not a matter which MPX consider impacted the commencement of clinical operations within the Hospital.

- **Item ID 1.8; 1.9; 1.10 – General Ventilation**

  - NHSL instructed an independent review of the general ventilation system by IOM after completion.

  - MPX were not provided with a full copy of IOM's results from this review until September 2019.

  - All matters raised were assumed to be items MPX were responsible for. However, IOM's results contained errors and did not accurately reflect the airflow rate and air changes being achieved; and/or related to matters which MPX were not responsible for.

  - MPX carried out a re-check of the identified areas and provided a full response to IOM's results no later than April 2020. This recheck was carried out in circumstances where MPX no longer had control of the hospital, or the ventilation systems.

  - As noted at paragraph 2.3.1.7 above, as at May 2020, NHSL was reporting that: "*All ventilation checks and improvements except the critical care and haematology / oncology ward works have been carried out*".

  - In May 2020 a second independent review was then carried out by IOM on behalf of NHSL, and a second set of different results provided to MPX.

  - These results again contained errors and inaccurate readings. MPX provided a full response to this second set of results, by no later than October 2020.

  - Both sets of investigations carried out by MPX confirmed that that the general ventilation systems were achieving their design requirements, with only minor adjustments being necessary in relation to a limited number of rooms.

- **Item ID 5 – Theatre temperature control**

  - On 25 June 2019 MPX were advised that IOM considered there to be a number of faulty control valves on plant and heater batteries.

- MPX investigated and carried out replacement where necessary and this item was closed in the IOM logs in July 2019.

- A separate item relating to BMS plant control was then intimated to MPX on 16 July 2019.

- MPX requested further specifics from IOM, with data to support their findings, but noted that in the interim they were arranging for the manufacturer to attend site and review

- Monitoring was then carried out and minor adjustments made to three theatres. These adjustments involved no physical works, but instead a minor change to the software control strategy for the systems in question, whereby the Building Management System control logic was adjusted to provide a tighter / closer control band for three theatres.

- These adjustments were completed by MPX on or around 11 October 2019 and IOM and NHSL thereafter confirmed the item as closed on 26 November 2019.

- **Item ID 9.5 – UCV Theatre Noise Levels**

  - On 25 June 2019 MPX were advised that IOM considered that the noise level in the ultra-clean ventilation ("UCV") Theatres was "*slightly high"*.

  - It was confirmed that the noise levels had all been previously measured during the original commissioning and were compliant.

  - In July and August 2019 faulty fans were then identified in Theatres 36 and 38 and were replaced. Faults to fans can arise at any time.

  - On 9 August 2019 the item raised on 25 June 2019, was closed with IOM.

  - Over a year after completion on 23 March 2020 IOM then suggested that noise levels had increased in some theatres. By this point it must be accepted that NHSL, with a full facilities management team, operating the Hospital and adjusting items as they see fit, have responsibility liability for maintenance.

  - On 23 March 2020 Medical Air Technology ("MAT") provided a quotation to Bouygues E&S Solutions Limited ("BYES") for replacement of the UCV fans in theatres, 31, 32, 33, 36, 37, 38, and 39.

  - On 31 March 2020 MAT confirmed they were on site carrying out these works and verifying all UCV theatres. These works were carried out under warranty and under the control of Bouygues.

- This was nothing more than general maintenance, as would be expected of a complicated medical facility.

- **Item ID 11 - fire damper access and fire rating**

  - The fusible link fire dampers and motorised combined fire smoke dampers were commissioned, reviewed and approved by the Independent Tester on behalf of NHSL.

  - In September 2019, a draft version of the NHS NSS report was issued to MPX. It suggested that that fire dampers could not be adequately tested due to poor duct access and questioned whether the ductwork used was appropriately fire rated.

  - MPX carried out a review and agreed to install additional access hatches to allow a visual inspection of the dampers. This item was noted as closed on 07 February 2020.

- **Items ID 13– bypass arrangement**

  - MPX understand this to be a reference to the maintenance arrangement for the AHUs serving isolation rooms

  - The "bypass" arrangement originally related to 4 AHUs: AHU 04-06 and AHU04-07 and AHU 04-08 and AHU 04-09. Due to additional works carried out by NHSL which MPX were not involved in, MPX understand that now only 2 AHUs currently operate with this bypass arrangement - AHU 04-08 and AHU 04-09.

  - AHU 04-09 is a general ward department AHU, it does not serve any isolation rooms. Accordingly, following NHSL's removal of AHU 04-06 and AHU 04-07, MPX understand the only isolation rooms associated with this bypass arrangement are those associated with AHU04-08. These are the following 4 isolation rooms on level 3: 3-C1.1.004; 3-C1.1.033; 3-C1.1.036; 3-C1.1.040.

  - This "bypass" arrangement does not affect the day-to-day operation of the AHUs. It is an additional maintenance arrangement whereby during the periods that AHU 04-08 requires to be switched off for general maintenance, AHU 04-09 accommodates the additional supply duty required to serve the four AHU 04-08 isolation rooms.

  - Changes to the control strategy associated with this bypass arrangement (i.e., changes to the computer software which controls the opening and closing of dampers) were made and the arrangement was demonstrated no later than 28 February 2020.

- **Item ID 15.1 and 15.2 – concerns around flexible ductwork in Theatres**

    - In July 2019 IOM raised concerns in relation to the length, configuration of and fire rating of flexible ductwork.

    - MPX sought confirmation from NHSL of the locations these concerns related to. Theatre 35 was identified, and minor works were undertaken to alter the flexible duct work, as during installation flex had been used to create one single bend.

    - On 6 August 2019 the relevant fire certification was issued to NHSL.

    - On 29 August 2019, Theatre 35 was noted as rectified. NHSL were unable to identify any other specific concerns and the item was noted as closed.

- **Item ID 18 – concerns around loose cabling within AHUs and ductwork**

    - In June 2019 concerns were raised in relation to the cabling associated with the AHUs and ductwork.

    - On 19 July 2019, it was noted that IOM had confirmed their concerns did not affect safe operation.

    - On 17 October 2019 NHSL approved an agreed scope of upgrade works

    - Changes were made to the AHU internal configuration to provide separation of the cabling from the airstream. This was achieved by using an Alu-zinc cable enclosure system c/w gaskets and sealed using an agreed sealant. The inverters were removed from inside the AHU's and mounted externally on the AHUs, in an agreed position. Other minor works such as changes to seals around bag filter casings and sealing of penetrations using an agreed sealant were also carried out.

    - On 04 March 2020 NHSL confirmed that the associated AHUs had been reviewed and a final snagging inspection was planned for 10 and 24 March 2020.

- **Item ID 19 - concerns with cleanliness of AHUs**

    - Prior to completion, the ventilation AHUs and ductwork systems were internally cleaned to BESA Guide to Good Practice TR19 (2nd Edition) cleanliness verification standards whereby no more than 0.3g dust / m² duct surface may be found using the 15 litre/min Preferred Vacuum Test Method.

    - The related reports include photographs from various locations before and after works have taken place to demonstrate the hygiene condition of ventilation ductwork systems. This cleaning was reviewed and approved by the Independent Tester on 23 January 2019.

- In or around August 2019 IOM suggested:

  (1) Internals of some units not clean.

  (2) That there was evidence of bird droppings to one unit and one unit has a dead mouse or small bird in the inlet section

  (3) That there was a risk of standing water

- Points (1) and (2) were noted as being the responsibility of the Bouygues.

- In relation to point 3, MPX carried out minor works. These works were completed by November 2019.

2.4.5 Overall, MPX's understanding is that all items in the Ventilation Spreadsheet which MPX were notified of and had a responsibility for, did not directly impact the opening or migration to the Hospital. They were either resolved quickly with limited or no additional works required by MPX or were further investigated whilst these system were being used by NHSL for patient care.

2.5 "*5. Do you consider that there were any additional issues with the ventilation system at the RHCYP/ DCN, which had the potential to adversely impact on patient safety and care, that are not highlighted in the Ventilation Spreadsheet? (If so, please provide an explanation of the issue(s))*"

2.5.1 It is MPX's position that it provided the ventilation system at the RHCYP / DCN in accordance with NHSL's requirements.

2.6 "*6. Did the issues highlighted in bold in the Ventilation Spreadsheet create delay in the completion of the RHCYP/ DCN?*"

2.6.1 No, on 22 February 2019 the Commissioning Completion Certificate and Certificate of Practical Completion were issued confirming that the Completion Criteria had been achieved. For the purposes of the Project Agreement and Construction Contract completion of the RHCYP / DCN was achieved on that date.

2.6.2 It was on 3 June 2019, one month prior to the planned opening of the Hospital on 9 July 2019, that NHSL contacted MPX and informed them that they would be carrying out an independent validation of all critical ventilation systems beginning 17 June 2021 for approximately 8 to 10 days. The "*issues*" noted in the Ventilation Spreadsheet were therefore raised after completion.

2.6.3 In regard to the planned opening of the Hospital, on 4 July 2019 the Scottish Government published an "*Update on Royal Hospital for Children and Young People*", which, *inter alia*, stated:

"*To protect patient safety the Health Secretary has delayed the move of patients, staff and services from the existing Royal Hospital for Sick Children to the new site at the Royal Infirmary of Edinburgh, which was due to take place next week.*

This decision was taken following final safety checks which revealed that the ventilation system within the critical care department in the new hospital requires further work to meet national standards."

2.6.4 MPX understands that the "…*further work to meet national standards*" referred to above concerned additional works[6] to deliver 10 air changes and 10Pa positive pressure for critical care areas in respect of certain rooms. The Board initially engaged with MPX and IHSL to consider a post completion High Value Change in relation to those additional works. In the event, NHSL engaged others to carry out those additional works over the period 2019 to 2021.

2.6.5 MPX further understands that over the period 2019 to 2021 NHSL also carried out enhancement works to haematology / oncology wards; fire dampers; corridor walls and doors to sleeping accommodation; and critical care pendants. MPX is not aware of the precise scope of the works which were carried out by NHSL.

2.6.6 NHSL then reported that the completion of the additional works referred to above thereafter allowed the full migration of services to the Hospital in 2021, albeit by July 2020 DCN services and 80% of Paediatric Outpatients had been migrated to the Hospital.

2.7 "*7. If the answer to 6 is "yes", please explain the nature of the delay.*"

2.7.1 Not applicable.

2.8 "*8. Were you aware of each of the issues highlighted in the Ventilation Spreadsheet on the dates specified in the Ventilation Spreadsheet? (please address each entry in the spreadsheet)*"

2.8.1 Reference is made to the annotated version of the "*Ventilation Spreadsheet*".

2.9 "*9. If the answer to question 8 is "no", please provide details of when you became aware of each issue highlighted in the Ventilation Spreadsheet.*"

2.9.1 Reference is made to the annotated version of the "*Ventilation Spreadsheet*".

2.10 "*10. How did you become aware of the issues highlight in the Ventilation Spreadsheet? (please address each entry in the spreadsheet)*"

2.10.1 Reference is made to the annotated version of the "*Ventilation Spreadsheet*".

2.11 "*11. Have the issues highlighted in bold in the Ventilation Spreadsheet been resolved? (please address each entry in the spreadsheet. If you consider that an issue or issues have not been resolved, please provide an explanation of the problem(s).)*"

2.11.1 Reference is made to the annotated version of the "*Ventilation Spreadsheet*".

2.12 "*12. When were the issues resolved? (please address each entry in the spreadsheet)*"

6 Being additional to the works provided for under the Project Agreement and Construction Contract.

2.12.1 Reference is made to the annotated version of the "*Ventilation Spreadsheet*".

2.13 "*13. How were each of the issues highlighted in the Ventilation Spreadsheet resolved? (please address each entry in the spreadsheet. Responses should address any agreements changes to the specification for the ventilation system together with details of remedial works undertaken and/ or replacement works)*"

2.13.1 Reference is made to the annotated version of the "*Ventilation Spreadsheet*".

2.14 "*14. Please explain why you consider each issue set out in the Ventilation Spreadsheet arose.*"

2.14.1 Reference is made to the annotated version of the "*Ventilation Spreadsheet*".

2.15 "*15. Do you have anything to add at this stage in relation to whether the ventilation system installed at the RHCYP/ DCN in July 2019: (i) was capable of performing the function and/ or purpose for which it was intended; and/ or (ii) conformed to relevant statutory regulation and other applicable recommendations, guidance, and good practice?*"

2.15.1 MPX does not have anything to add at this stage.

2.16 "*16. Do you have anything to add at this stage in relation to whether the ventilation system in the RHCYP/ DCN as at 23 March 2021: (i) is capable of performing the function and/ or purpose for which it was intended; and/ or (ii) conforms to relevant statutory regulation and other applicable recommendations, guidance, and good practice?*"

2.16.1 MPX is unable to respond to this question given that the status of the ventilation system in the RHCYP / DCN some two years after completion was achieved is not something that MPX has awareness of. Following completion, maintenance and operation of the ventilation system in the RHCYP / DCN was the responsibility of the Board and IHSL.

5/11/2021

ITPD Volume 2
Version 1

AGREEMENT

between

LOTHIAN HEALTH BOARD

and

[PROJECT CO]

RE-PROVISION OF RHSC AND DCN AT LITTLE FRANCE

[Date] 2013

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SCHEDULES

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BETWEEN:

(1) **LOTHIAN HEALTH BOARD**, a health board constituted in Scotland under the National Health Service (Constitution of Health Boards) (Scotland) Order 1974 (S.I. 1974/267) as amended by the National Health Service (Constitution of Health Boards) (Scotland) Amendment Order 2003 (S.S.I. 2003/217) pursuant to Section 2 of the National Health Service (Scotland) Act 1978 as amended by section 28 of the National Health Service and Community Care Act 1990 and having its principal address at Waverley Gate, 2-4 Waterloo Place, Edinburgh EH1 3EG (the **"Board"**); and

(2) [ ] (registered under number [ ]) whose registered office is [ ] ("**Project Co**").

WHEREAS:

(A) The Board wishes to develop new facilities on the Site and Off-Site and to consolidate on the Site services currently provided at other locations in order to improve the quality and efficiency of services provided by the Board.

(B) The Board wishes to procure the design, build, finance and maintenance of a project to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France (the **"Project"**).

(C) In accordance with the Scottish Government's NPD initiative, the Board conducted a competitive dialogue to identify the most economically advantageous tender from persons interested in being appointed the Board's private sector partner and forming a NPD company to procure the Project.

(D) The tender submitted by Project Co has been selected as the most economically advantageous tender.

(E) This Agreement is entered into pursuant to a project applying principles similar to the principles of the private finance initiative and is excluded from the Housing Grants, Construction and Regeneration Act 1996 by virtue of the Construction Contracts (Scotland) Exclusion Order 1998 (S.I. 1998/686).

NOW IT IS HEREBY AGREED as follows:

PART 1: GENERAL

1. DEFINITIONS AND INTERPRETATION

Schedule Part 1 (*Definitions and Interpretation*) shall apply.

2. EXECUTION AND DELIVERY OF DOCUMENTS

2.1 On or prior to execution of this Agreement Project Co shall deliver to the Board the documents referred to in Section 1 (*Documents to be delivered by Project Co*) of Schedule Part 2 (*Completion Documents*) (unless the requirement to deliver any such document is waived by the Board by written notice to Project Co); and

2.2 the Board shall deliver to Project Co the documents referred to in Section 2

(*Documents to be delivered by the Board*) of Schedule Part 2 (*Completion Documents*) (unless the requirement to deliver any such document is waived by Project Co by written notice to the Board).

3. COMMENCEMENT AND DURATION

This Agreement, and the rights and obligations of the parties, shall commence on the date of execution of this Agreement and, without prejudice to Clause 47.6, shall terminate automatically on the expiry of the Project Term.

4. PROJECT DOCUMENTS

Ancillary Documents

4.1 Project Co shall perform its obligations under, and observe all of the provisions of, the Project Documents to which it is a party and shall not:

4.1.1 terminate or agree to the termination of all or part of any Ancillary Document;

4.1.2 make or agree to any material variation of any Ancillary Document;4.1.3 in any material respect depart from its obligations (or waive or allow to lapse any rights it may have in a material respect), or procure that others in any material respect depart from their obligations (or waive or allow to lapse any rights they may have in a material respect), under any Ancillary Document; or4.1.4 enter into (or permit the entry into by any other person of) any agreement replacing all or part of (or otherwise materially and adversely affecting the interpretation of) any Ancillary Document,

unless the proposed course of action (and any relevant documentation) has been submitted to the Board's Representative for review under Schedule Part 8 (*Review Procedure*) and either:

(a) there has been no objection in accordance with paragraph 3of Schedule Part 8 (*Review Procedure*) within twenty (20) Business Days of receipt by the Board's Representative of the submission of the proposed course of action (and any relevant documentation), or such shorter period as may be agreed by the parties; or

(b) Project Co is acting in accordance with the comments of the Board as provided in paragraph 4.2 of Schedule Part 8 (*Review Procedure*);

and, in the circumstances specified in Clause 4.1.1, Project Co has complied with Clause 57 (*Assignation and Sub-contracting*).

Changes to Funding Agreements and Refinancing

4.2 Subject to Clauses 4.3, 4.4 and 4.5, Project Co shall be free, at any time, to enter into, terminate, amend, waive its rights and generally deal with its Funding Agreements on such terms and conditions as it sees fit without the prior written consent of the Board provided that (at the time such action is contemplated and effected) the same will not materially and adversely affect the ability of Project Co to perform its obligations under the Project Documents or this Agreement.

4.3 No amendment, waiver or exercise of a right under any Funding Agreement or Ancillary Document shall have the effect of increasing the Board's liabilities on early termination of this Agreement unless:

4.3.1 Project Co has obtained the prior written consent of the Board to such increased liability for the purposes of this Clause 4.3; or

4.3.2 it is a Permitted Borrowing.

4.4 Project Co shall not, without the prior written consent of the Board for the purposes of this Clause 4.4, vary, amend or replace any Funding Agreement or enter into any new Funding Agreement, the effect of which is to:

4.4.1 change the circumstances in, or conditions on, which the Agreed Order of Priorities may be varied;

4.4.2 change the circumstances in, or conditions on, which Project Co is entitled or obliged to make payments into the Surplus Account; and/or

4.4.3 change the circumstances in, or conditions on, which Project Co is entitled or obliged to make Surplus Payments.

4.5 Any amendment or variation of any Funding Agreements which constitutes a Refinancing shall be carried out in accordance with the provisions of Schedule Part 23 (*Refinancing*).

4.6 Without prejudice to Clause 4.2, Project Co shall liaise with the Board, and shall use all reasonable endeavours to provide the Board with a copy of the relevant agreement in settled draft form, not less than ten (10) Business Days before it enters into any Funding Agreement (other than the Initial Funding Agreements).

Delivery

4.7 Without prejudice to the provisions of this Clause 4 (*Project Documents*), if at any time an amendment is made to any Project Document, or Project Co enters into a new Project Document (or any agreement which affects the interpretation or application of any Project Document), Project Co shall deliver to the Board a conformed copy of each such amendment or agreement within ten (10) Business Days of the date of its execution or creation, certified as a true copy by an officer of Project Co.

Funding Default

4.8 Project Co shall promptly upon the occurrence of a [Funding Default] notify the Board of such [Funding Default].

4.9 The Board may, in circumstances referred to in Clause 4.8 above (regardless of whether the Senior Funders have exercised any enforcement or similar rights under the Senior Funding Agreements), require Project Co to provide an Interim Project Report and to attend, and use all reasonable endeavours to ensure that the Senior Funders attend, such meetings as the Board may convene to discuss such Interim Project Report and the circumstances giving rise to it.

4.10 Project Co shall promptly upon a failure by the Senior Funders to advance amounts due under the Senior Funding Agreements (or in circumstances that might reasonably be expected to lead to such a failure) notify the Board of such failure (or expected failure).

4.11 The Board may, in the circumstances referred to in Clause 4.10 above, require Project Co to attend, and use all reasonable endeavours to ensure that the Senior Funders attend, such meetings as the Board may convene to discuss the circumstances.

5. THE PROJECT OPERATIONS

Scope

5.1 Subject to and in accordance with the provisions of this Agreement, Project Co shall perform its duties under this Agreement at its own cost and risk without recourse to the Board except as otherwise expressly provided in this Agreement.

General standards

5.2 Project Co shall at its own cost be solely responsible for procuring that the Project Operations are at all times performed:

5.2.1 in compliance with all Law and Consents (including without limitation the giving of notices and the obtaining of any such Consents) and so as not to prejudice the renewal of any such Consents;

5.2.2 in a manner that is not likely to be injurious to health or to cause damage to property;

5.2.3 in a manner consistent with the Quality Plans;

5.2.4 except to the extent expressly stated to the contrary in the Board's Construction Requirements or the Service Level Specification, in

compliance with all applicable NHS Requirements;

5.2.5 in a manner consistent with the Board discharging its statutory duties and other functions undertaken by it as the same may be notified to Project Co from time to time;

5.2.6 in so far as not in conflict with an express obligation of Project Co under this Agreement, or where in relation to a matter there is no express obligation or standard imposed on Project Co under this Agreement, in accordance with Good Industry Practice; and

5.2.7 without prejudice to the foregoing generality, where any of the Project Operations are to carried out on any part of the Retained Site and/or the Retained Estate in compliance with the reasonable requirements of the Board, which Project Co acknowledges may include the reasonable requirements of Consort and/or the University and/or other parties with an interest in the Retained Site and/or Retained Estate.

In the event that any ambiguity, uncertainty, dispute or discrepancy arises in the nature and scope of Project Co's obligations under this Clause 5.2 (*General Standards*), the provisions of this Clause 5.2 (*General Standards*) will be given meaning and have effect in descending order of precedence set out in this Clause 5.2 (*General Standards*).

Board's Undertaking

5.3 The Board undertakes to Project Co that it shall:

5.3.1 subject to the provisions of this Agreement, comply with all Laws, NHS Requirements and Consents applicable to it which relate to the Project Operations;

5.3.2 not wilfully impede Project Co in the performance of its obligations under this Agreement (having regard always to the interactive nature of the activities of the Board and of Project Co and to the Board's use of the Facilities, the Retained Estate Handback Infrastructure and/or the Retained Estate to provide the relevant Board Services and any other operations or activities carried out by the Board on or at the Site, Off-Site and/or the Retained Site for the purposes contemplated by this Agreement and any other of the Board's statutory functions);

5.3.2 inform Project Co as soon as reasonably practicable if at any time it becomes unable to meet any of its financial obligations and in such case inform, and keep Project Co informed, of any course of action to remedy the situation recommended or required by the Scottish Government, the Board or other competent authority; and

5.3.3 to the extent permitted by Law, supply to Project Co within sixty (60) Business Days of their publication, a copy of the Board's Annual

provided that, to avoid doubt, nothing in this Clause 5.3 (*Board's Undertaking*) shall in any way fetter the discretion of the Board in fulfilling its statutory functions.

Co-operation

5.4 Each party agrees to co operate, at its own expense, with the other party in the fulfilment of the purposes and intent of this Agreement. To avoid doubt, neither party shall be under any obligation to perform any of the other's obligations under this Agreement.

5.5 Without prejudice to the generality of Clause 5.4, the parties shall liaise with a view to ensuring that the requirements of The NHS and You and any other NHS requirement relating to customer service and satisfaction which may from time to time supplement or replace The NHS and You are met in respect of the operation of the Facilities.

6. GENERAL OBLIGATIONS AND RESPONSIBILITIES OF PROJECT CO

Other business

6.1 Project Co shall not engage in any business or activity other than the business or activities related to, and conducted for, the purpose of the Project Operations.

Project Co Parties

6.2 Subject to the provision of Clause 30.1.7, Project Co shall not be relieved or excused of any responsibility, liability or obligation under this Agreement by the appointment of any Project Co Party. Project Co shall, as between itself and the Board, be responsible for the selection, pricing, performance, acts, defaults, omissions, breaches and negligence of all Project Co Parties. All references in this Agreement to any act, default, omission, breach or negligence of Project Co shall be construed accordingly to include any such act, default, omission, breach or negligence of a Project Co Party.

Safety

6.3 Project Co shall, in carrying out the Project Operations, have full regard for the safety of all persons on the Site, the Retained Site and/or Off-Site (whether lawfully or not) and keep the Site and/or Off-Site, the Works and the Facilities in an orderly state, appropriate in accordance with Good Industry Practice, to avoid danger to such persons.

7. BOARD'S DATA

No liability

7.1 The Board shall not be liable to Project Co for and Project Co shall not seek to recover from the Board (or from any Board Party) any damages, losses, costs, liabilities or expenses which may arise (whether in contract, delict or otherwise) from the adoption, use or application of the Disclosed Data by, or on behalf of, Project Co, the Independent Tester or any Project Co Party.

No warranty

7.2 The Board gives no warranty or undertaking of whatever nature in respect of the Disclosed Data and, specifically (but without limitation), the Board does not warrant that the Disclosed Data represents all of the information in its possession or power (either during the conduct of the tender process for the Project or at the time of execution of this Agreement) relevant or material to or in connection with the Project or the obligations of Project Co under this Agreement or under any of the Project Documents. In addition, the Board shall not be liable to Project Co in respect of any failure to disclose or make available to Project Co (whether before, on or after the execution of this Agreement) any information, documents or data, nor any failure to review or to update the Disclosed Data, nor any failure to inform Project Co (whether before, on or after execution of this Agreement) of any inaccuracy, error, omission, defects or inadequacy in the Disclosed Data.

Project Co investigation

7.3 Project Co acknowledges and confirms that:

7.3.1 it has conducted its own analysis and review of the Disclosed Data and has, before the execution of this Agreement, satisfied itself as to the accuracy, completeness and fitness for purpose of any such Disclosed Data upon which it places reliance; and

7.3.2 it shall not be entitled to and shall not (and shall procure that no Project Co Party shall) make any claim against the Board or any Board Party whether in contract, delict or otherwise including, without limitation, any claim in damages, for extensions of time or for additional payments under this Agreement on the grounds:

(a) of any misunderstanding or misapprehension in respect of the Disclosed Data; or

(b) that incorrect or insufficient information relating to the Disclosed Data was given to it by any person, whether or not an Board Party,

nor shall Project Co be relieved from any obligation imposed on, or undertaken by it, under this Agreement on any such ground.

8. REPRESENTATIVES

Representatives of the Board

8.1 The Board's Representative shall be Brian Currie or such other person appointed pursuant to this Clause. The Board's Representative shall exercise the functions and powers of the Board in relation to the Project Operations which are identified in this Agreement as functions or powers to be carried out by the Board's Representative. The Board's Representative shall also exercise such other functions and powers of the Board under this Agreement as may be notified to Project Co from time to time.

8.2 The Board's Representative shall be entitled at any time, by notice to Project Co, to authorise any other person to exercise the functions and powers of the Board delegated to him pursuant to this Clause, either generally or specifically. Any act of any such person shall, for the purposes of this Agreement, constitute an act of the Board's Representative and all references to the "**Board's Representative**" in this Agreement (apart from this Clause) shall be taken as references to such person so far as they concern matters within the scope of such person's authority.

8.3 The Board may by notice to Project Co change the Board's Representative. The Board shall (as far as practicable) consult with Project Co prior to the appointment of any replacement for the Board's Representative, taking account of the need for liaison and continuity in respect of the Project. Such change shall have effect on the date specified in the written notice (which date shall, other than in the case of emergency, be such date as will not cause material inconvenience to Project Co in the execution of its obligations under this Agreement).

8.4 During any period when no Board's Representative has been appointed (or when the Board's Representative is unable through illness, incapacity or any other reason whatsoever to carry out or exercise his functions under this Agreement) the Board shall carry out the functions which would otherwise be performed by the Board's Representative.

8.5 No act or omission of the Board, the Board's Representative or any officer, employee or other person engaged by the Board shall, except as otherwise expressly provided in this Agreement:

8.5.1 in any way relieve or absolve Project Co from, modify, or act as a waiver or personal bar of, any liability, responsibility, obligation or duty under this Agreement; or

8.5.2 in the absence of an express order or authorisation under Schedule Part 16 (*Change Protocol*), constitute or authorise a Change.

8.6 Except as previously notified in writing before such act by the Board to Project Co, Project Co and Project Co's Representative shall be entitled to treat any act of the Board's Representative which is authorised by this Agreement as being expressly authorised by the Board and Project Co and Project Co's Representative shall not be required to determine whether an express Board has in fact been given.

Representative of Project Co

8.7 Project Co's Representative shall be [ ] or such other person appointed pursuant to Clause 8.8. Project Co's Representative shall have full authority to act on behalf of Project Co for all purposes of this Agreement. Except as previously notified in writing before such act by Project Co to the Board, the Board and the Board's Representative shall be entitled to treat any act of Project Co's Representative in connection with this Agreement as being expressly authorised by Project Co and the Board and the Board's Representative shall not be required to determine whether any express authority has in fact been given.

8.8 Project Co may by notice to the Board change Project Co's Representative. Where Project Co wishes to do so it shall by written notice to the Board propose a substitute for approval, taking account of the need for liaison and continuity in respect of the Project. Such appointment shall be subject to the approval of the Board (not to be unreasonably withheld or delayed).

8.9 Project Co's Key Works Personnel are identified in Schedule Part 3 (*Key Works Personnel*). Project Co shall, as far as it is within Project Co's control, ensure that such persons retain their involvement in the Works and, in particular, will not, for the duration of the Works, require or request any of them to be involved in any other project on behalf of Project Co or any of the Shareholders or its or their Associated Companies if, in the reasonable opinion of the Board, this would adversely affect the Project.

Board Observer

8.10 Project Co shall, subject to Clauses 8.11 to 8.13, ensure that the Board Observer:

8.10.1 is invited to attend all Project Co board meetings;

8.10.2 receives at or around the time that they are received by Project Co's board members) the agendas and supporting papers that are circulated to the board members in advance of the board meetings or tabled at the board meetings including, without prejudice to the foregoing generality, six-monthly management accounts, budgets and management reports (including explanations of material variances against budget) and the statutory accounts in respect of each financial year;

8.10.3 is permitted by Project Co to attend and participate (but not vote at) all Project Co board meetings; and

8.10.4 receives (at or around the same time as they are received by the board members) copies of the minutes of Project Co's board meetings and all other financial information relating to Project Co as any Director might reasonably require to keep himself properly informed about the activities of Project Co.

8.11 The Board Observer shall, unless otherwise determined by a board resolution in respect of any particular matter, be entitled to disclose any information received pursuant to Clause 8.10 subject to and in accordance with the provisions of Clause 61 (*Confidentiality*) and the Board shall procure that the individual appointed to fulfil such role executes suitable undertakings of confidentiality to comply with the terms of Clause 61 (*Confidentiality*).

8.12 Project Co, acting reasonably, shall be entitled to exclude the Board Observer from attending Project Co's board meetings and withhold the agendas and supporting papers referred to in Clause 8.10:

8.12.1 in the event that the Board Observer discloses information received pursuant to Clause 8.10 other than in accordance with Clause8.11; or

8.12.2 where and for so long as the conduct of the Board Observer is inappropriate.

8.13 Project Co shall be entitled to exclude the Board Observer from attending any part of a Project Co board meeting at which:

8.13.1 the exercise or purported exercise of contractual rights by Project Co against the Board or by the Board against Project Co; or

8.13.2 any claims or potential claims by Project Co against the Board or by the Board against Project Co; or

8.13.3 any matter of interpretation of this Agreement,

is discussed and shall be entitled to withhold from the Board any supporting papers and information to the extent that they relate to the matters listed in Clauses 8.13.1 to 8.13.3.

8A LITTLE FRANCE CAMPUS WORKING GROUP

8A.1 The Board, Consort and the University have established a working group to discuss operational Campus Site and Campus Facilities issues (the "**Little France Campus Working Group**").

8A.2 The Little France Campus Working Group shall meet on a monthly basis and one representative from Project Co and one representative from the relevant Subcontractor, together with one representative each of the parties referred to in Clause 8A.1 above, shall be obliged to attend such monthly meeting during the Project Term.

8A.3 The functions of the Little France Campus Working Group shall be:

8A.3.1 to provide means for the review of day to day aspects of the health and safety issues relating to the Campus Site and the Campus Facilities;

8A.3.2 to provide a forum for strategic discussion relating to where

improvements could be made to facilitate improved health and safety arrangements within the Campus Site and the Campus Facilities; and

8A.3.3 to monitor and review the Programme to ensure that correct health and safety procedures are adhered to.

8A.4 Project Co shall submit to the Board's Representative ten (10) Business Days prior to the date of each monthly meeting a safety programme, which shall include safety measures to be undertaken by Project Co up to the date of such meeting.

8A.5 The role of the Little France Campus Working Group is to make recommendations to the Little France Campus Working Group Parties, which they may accept or reject at their complete discretion. Neither the Little France Campus Working Group itself, nor the Little France Campus Working Group Parties acting in that capacity shall have the authority to vary the provisions of this Agreement or to make any decision which is binding on all of the Little France Campus Working Group Parties. Neither the Board nor Project Co shall rely on any act or omission of the Little France Campus Working Group, nor any Little France Campus Working Group Parties acting in that capacity, so as to give rise to any waiver or personal bar in respect of any right, benefit of obligation of either party.

8A.6 Project Co shall appoint and remove its relevant representative of the Little France Campus Working Group and/or alternative by written notice delivered to the Board. If such representative and/or alternate is unavailable to attend then Project Co must issue a report to the Board ten (10) Business Days before the relevant meeting of the Little France Campus Working Group setting out any significant health and safety and/or risk management issues within the Site and/or Facilities since the previous meeting, together with the safety programme referred to in Clause 8A.4.

Procedures and practices

8A.7 Subject to the provisions of this Agreement, the Little France Campus Working Parties may adopt such procedures and practices for the conduct of the activities of the Little France Campus Working Group as they consider appropriate from time to time and:

8A.7.1 may invite to any meeting of the Little France Campus Working Group such other persons as the Little France Campus Working Group Parties may agree; and

8A.7.2 receive and review a report from any person agreed by its members.

8A.8 The Little France Campus Working Group shall meet at least once each month (unless otherwise agreed by its members) and from time to time as necessary.

8A.9 Any Little France Campus Working Group Party may convene a meeting of the Little France Campus Working Group at any time.

8A.10 Meetings of the Little France Campus Working Group shall be convened on not less than seven (7) Business Days notice (identifying the agenda items to be discussed at the meeting) provided that in emergencies a meeting may be called at any time on such notice as may be reasonable in the circumstances.

8A.11 Where the Little France Campus Working Group decides it is appropriate, meetings may also be held by telephone or another form of telecommunication, by which each participant can hear and speak to all other participants at the same

time.

8A.12 Minutes of all recommendations (including those made by telephone or other form of telecommunication) and meetings of the Little France Campus Working Group shall be kept by the Board and copies circulated promptly to the Little France Campus Working Group Parties, normally within five (5) Business Days of the making of the recommendation or the holding of the meeting. A full set of minutes shall be open to inspection by either party at any time, upon request.

PART 2: LAND ISSUES

9. NATURE OF LAND INTERESTS

Access During Construction

9.1 From the Commencement Date until the Actual Completion Date or (if earlier) the Termination Date, the Board shall grant to Project Co and Project Co Parties, or procure that Project Co and the Project Co Parties are granted the Ancillary Rights set out in paragraphs 1 to 9 of Section 3 *(Ancillary Rights)* of Schedule Part 5 (*Land Matters*), in each case subject only to the Reserved Rights, the Title Conditions and the Board's rights under this Agreement and solely for the purposes of implementing the Works and carrying out Project Co's Pre-Completion Commissioning.

Access Following Construction

9.2 After the occurrence of the Actual Completion Date the Board shall grant to Project Co and Project Co Parties, or procure that Project Co and Project Co Parties are granted, access to the Facilities in terms of paragraph 10 of Section 3 *(Ancillary Rights)* of Schedule Part 5 (*Land Matters*) subject only to the Reserved Rights, the Title Conditions and the provisions of this Agreement and solely for the purposes of:

9.2.1 carrying out the Project Operations (other than those Project Operations for which Project Co is granted rights pursuant to Clause 9.1 (*Access During Construction*));

9.2.2 remedying Defects and carrying out Snagging Matters; and

9.2.3 exercising the Ancillary Rights set out in paragraph 10 of Section 3 *(Ancillary Rights)* of Schedule Part 5 (*Land Matters*).

Such rights shall terminate on the Expiry Date or (if earlier) the Termination Date.

Extent of Rights

9.3 The rights referred to at Clauses 9.1 (*Access During Construction*) and 9.2 (*Access Following Construction*) shall not operate or be deemed to operate as a

lease of the Facilities, the Retained Estate Handback Infrastructure, the Site or Off-Site or any part of the Facilities, the Retained Estate Handback Infrastructure, the Site or Off-Site and Project Co shall not have or be entitled to exclusive possession (save to the extent expressly included within the Ancillary Rights) or any estate, right, title or interest in and to the Facilities, the Retained Estate Handback Infrastructure, the Site or Off-Site except as provided herein and shall occupy the Site as a licensee only

9.4 The rights referred to at Clause 9.1 (*Access During Construction*) and 9.2 (*Access Following Construction*) are personal to Project Co and the Project Co Parties.

9.5 Project Co shall procure that:

9.5.1 all Project Operations carried out at the Site or Off-Site: by or on behalf of Project Co (whether before, during or after the completion of the Works) shall be carried out in a manner which does not breach any of the Title Conditions and/or the Reserved Rights; and

9.5.2 there shall be no action, or omission to act by Project Co or a Project Co Party, which shall give rise to a right for any person to obtain title to the Site and/or Off-Site or any part of it.

9.6 Notwithstanding the terms of Clauses 9.1 and 9.2 or any other rights granted under this Agreement, the Board shall (if it is the heritable proprietor of the Site or Off-Site), or (if it is not the heritable proprietor of the Site or Off-Site) shall procure that the heritable proprietor of the Site and/or Off-Site shall, enter into such wayleaves, deeds of servitude or other similar agreements with any third party that Project Co or any Project Co Party may require to be granted in favour of or by any third party, in order to exercise its rights or perform its obligations under this Agreement. The Board shall enter into (or, where appropriate, shall procure that the heritable proprietor of the Site and/or Off-Site shall enter into) any such wayleave, deed of servitude or other similar agreement, as soon as reasonably practicable after Project Co has provided to the Board all relevant information in connection therewith provided always that Project Co has obtained at its own cost the prior agreement of the third party in terms acceptable to the Board (acting reasonably). Project Co shall reimburse the Board for all costs and expenses reasonably and properly incurred by the Board (and/or the heritable proprietor of the Site and/or Off-Site) in connection with entering into such wayleaves, deeds of servitude or other similar agreements at the request of Project Co.

10. THE SITE AND OFF-SITE

10.1 The condition of the Site and Off-Site shall be the sole responsibility of Project Co. Accordingly (without prejudice to any other obligation of Project Co under this Agreement), Project Co shall be deemed to have:

10.1.1 carried out a Ground Physical and Geophysical Investigation and to have inspected and examined the Site and Off-Site and its surroundings and (where applicable) any existing structures or works on, over or under the Site and Off-Site;

10.1.2 satisfied itself as to the nature of (1) the Site Conditions and Off-Site Conditions, the ground and the subsoil, the form and nature of the Site and Off-Site, the load bearing and other relevant properties of the Site and Off-Site, the risk of injury or damage to property affecting the Site and Off-Site, the nature of the materials (whether natural or otherwise) to be excavated and the nature of the design, work and materials in each case, necessary for the execution of the Works;

10.1.3 satisfied itself as to the extent and adequacy of the Site and Off-Site and of the rights of access to and from and through the Site and Off-Site granted hereunder and any accommodation it may require for the purposes of fulfilling its obligations under this Agreement (such as additional land or buildings outside the Site) without prejudice to Project Co's rights under this Agreement in respect of a breach by the Board of its obligations under Clause 9.1 and/or Clause 9.2;

10.1.4 satisfied itself as to the precautions, times and methods of working necessary to prevent any nuisance or interference, whether public or private, being caused to any third parties including without limitation Consort, Consort Parties, users of the Bioquarter Site, the University and any University Parties; and

10.1.5 satisfied itself as to the conditions, burdens, restrictions and reservations set out in the Title Conditions and the Reserved Rights.

10.2 To avoid doubt, Project Co accepts full responsibility for all matters referred to in Clause 10.1 and Project Co shall:

10.2.1 not be entitled to make any claim against the Board of any nature whatsoever save, if applicable, as expressly provided in Clause 29 (*Delay Events*), on any grounds including (without limitation) the fact that incorrect or insufficient information on any matter relating to the Site and Off-Site was given to it by any person, whether or not the Board or an Board Party; and

10.2.2 be responsible for, and hold the Board harmless from, (1) cleaning up and/or otherwise dealing with any Contamination at the Site and Off-Site and (2) that it shall at all times comply with its obligations under this Agreement including (without limitation) complying with, at its own cost, any applicable Laws and any Consents, orders, notices or directions of any regulatory body (whether made against the Board or Project Co).

11. CONSENTS & PLANNING APPROVAL

11.1 Project Co shall be responsible for:

11.1.1 obtaining all Consents which may be required for the performance of the Project Operations; and

11.1.2 implementing each Consent within the period of its validity in accordance with its terms.

11.2 In the event that:

11.2.1 a Consent that has been granted is subsequently amended, repealed, revoked or otherwise ceases to be in full force and effect in accordance with its terms as a consequence of any action by a Relevant Board;

11.2.2 affected persons are entitled to claim compensation for the adverse effects of such action under a statutory scheme of compensation; and

11.2.3 Project Co is not entitled in its own name to claim under that scheme but the Board is so entitled

the Board must use all reasonable endeavours, at the request and at the cost of Project Co, to claim or to include within its claim such sums as Project Co acting reasonably requests and shall pay to Project Co the part of any compensation that it receives under that scheme that relates to the sums claimed at the request of Project Co.

PART 3: DESIGN AND CONSTRUCTION

12. THE DESIGN CONSTRUCTION AND COMMISSIONING PROCESS

Overall Responsibility

12.1 Project Co shall carry out the Works:

12.1.1 so as to procure satisfaction of the Board's Construction Requirements;

12.1.2 in accordance with Project Co's Proposals; and

12.1.3 in accordance with the terms of this Agreement.

12.2 To avoid doubt, the obligations in Clauses 12.1.1, 12.1.2 and 12.1.3 are independent obligations. In particular:

12.2.1 the fact that Project Co has complied with Project Co's Proposals shall not be a defence to an allegation that Project Co has not satisfied the Board's Construction Requirements; and

12.2.2 the fact that Project Co has satisfied the Board's Construction Requirements shall not be a defence to an allegation that Project Co has failed to comply with Project Co's Proposals.

Design responsibility

12.3 Project Co warrants that it has used, and will continue to use, the degree of skill and care in the design of the Facilities and the Retained Estate Handback Infrastructure that would reasonably be expected of a competent professional designer experienced in carrying out design activities of a similar nature, scope and complexity to those comprised in the Works.

Corporate Identity and Signage

12.4 The parties acknowledge that the Board may, from time to time during the Construction Phase, be required to procure the erection of hoarding, site boards, plaques and/or other signage in connection with the Project. Accordingly:

12.4.1 where requested by the Board (acting reasonably), Project Co shall procure the erection and maintenance of such hoarding, site boards, plaques and/or other signage as the Board may require; and

12.4.2 the size, design, information disclosed, position and materials used in connection with such hoarding, site boards, plaques or other signage shall be approved by the Board, such approval not to be unreasonably withheld; and

12.4.3 for the purposes of this Clause 12.4 *(Corporate Identity and Signage)*, the Board shall be deemed to be acting reasonably where any proposals made by it and/or any approvals exercised by it conform with any relevant guidance issued to NHS Boards by the Scottish Government Health Directorate (or any successor Directorate) in relation to such matters whether by Executive Letter or otherwise.

Board design approval

12.5 The Board confirms that, as at the date of this Agreement, it has reviewed such of Project Co's Proposals as have been initialled by the Board and that, subject to any qualifications and/or comments notified by the Board to Project Co in writing and set out in Section 9 (*Board's Comments on Project Co's Proposals*) of Schedule Part 6 (*Construction Matters*) such proposals satisfy the Board's requirements in respect of Operational Functionality, so far as can reasonably be determined given the level of detail of Design Data which has been disclosed to the Board.

12.6 Project Co shall develop and finalise the design and specification of the Works and the Board shall review the Reviewable Design Data in accordance with Schedule Part 8 (*Review Procedure*) and the provisions of this Clause 12.6:

12.6.1 Project Co shall submit the Reviewable Design Data and the design of any Changes developed in accordance with the procedure set out in Schedule Part 16 (*Change Protocol*) to the Board's Representative for review under Schedule Part 8(*Review Procedure*). Project Co shall not commence or permit the commencement of construction of the part or parts of the Facilities and/or Retained Estate Handback Infrastructure to which such Reviewable Design Data relates until it has submitted the appropriate Reviewable Design Data and either it is confirmed by the Board's Representative that Project Co is entitled to proceed with construction in accordance with paragraph 3.3 of Schedule Part 8 (*Review Procedure*) or Project Co is:

(a) disputing the status of such Reviewable Design Data pursuant to paragraph 1.3.1 or paragraph 4.3 of Schedule Part 8 (*Review Procedure*); and

(b) proceeding at risk pursuant to paragraph 1.3.2 of Schedule Part 8 *(Review Procedure).*

12.6.2 with effect from the date at which any item of Reviewable Design Data is or becomes an Approved RDD Item in accordance with Schedule Part 8 (*Review Procedure*), such Approved RDD Item shall for the purposes of this Agreement be deemed to have satisfied the requirements of the Board in the manner and to the extent set out in,

Table Ain Appendix 1 of Schedule Part 8 (*Review Procedure*);

12.6.3 Project Co shall allow the Board's Representative, at any time, a reasonable opportunity to view any items of Design Data, which shall be made available to the Board's Representative as soon as practicable following receipt of any written request from the Board's Representative; and

12.6.4 Project Co shall procure that the Contractor establishes and maintains a computerised design database which Project Co and the Board's Representative may access remotely by computer to view drawings comprised within the Design Data (including Reviewable Design Data) and electronically store and/or print copies of such Design Data. In the event of the Board's Representative being unable to access such design database, Project Co shall procure that it is made available for inspection by the Board's Representative, or any other person authorised by the Board's Representative.

Rectification of Project Co's Proposals

12.7 Without prejudice to Clause 12.1, if it should be found that Project Co's Proposals do not fulfil the Board's Construction Requirements, Project Co shall at its own expense, and in accordance with Clause 12.8 below, amend Project Co's Proposals and rectify the Works or any part affected. Such amendment and rectification shall have the effect that:

12.7.1 Project Co's Proposals shall satisfy the Board's Construction Requirements; and

12.7.2 following the amendment or rectification, the structural, mechanical and electrical performance of the Facilities and/or Retained Estate Handback Infrastructure will be of an equivalent standard of performance to that set out in Project Co's Proposals prior to their amendment or rectification (for the purpose of this comparison disregarding the fault which required the amendment or rectification to be made).

12.8 Where Clause 12.7 applies, Project Co shall submit its proposal for amending Project Co's Proposals and rectifying the Works (or any part affected) to the Board's Representative for review under Schedule Part 8 (*Review Procedure*) and shall not amend Project Co's Proposals or commence or allow the commencement of the rectification of the Works (or any part affected) until it is permitted to proceed in accordance with Schedule Part 8 (*Review Procedure*).

13. RIGHT OF ACCESS OF BOARD'S REPRESENTATIVE

Access to the Site and Off-Site

13.1 Without prejudice to Clause 9 *(Nature of Land Interests),* Appendix A of the

Board's Construction Requirements and/or the Interface Proposals, Project Co shall procure that:

13.1.1 subject to complying with all relevant safety procedures, which shall include any relevant construction phase plans and health and safety plans for the construction of the Facilities and the Retained Estate Handback Infrastructure, the Contractor's Site Rules from time to time and any reasonable directions with regard to site safety that may be issued by or on behalf of the Contractor's Site Manager from time to time, the Board's Representative and any other parties authorised by the Board's Representative to accompany the Board's Representative shall have unrestricted access at all reasonable times during normal working hours to:

(a) view the Works at the Site and Off-Site on reasonable prior notice appropriate to the circumstances, provided that the notice procedures in this Clause 13.1.1(a) shall not apply to the right of access for the Board's Representative and his staff and visitors to the office and other facilities provided at the Site and Off-Site for his use; and

(b) subject to obtaining the consent of the relevant manufacturer or supplier (which Project Co agrees to use all reasonable endeavours to obtain), visit any site or workshop where materials, plant or equipment are being manufactured, prepared or stored for use in the Works for the purposes of general inspection and of attending any test or investigation being carried out in respect of the Works;

13.1.2 the Board's Representative shall have such rights of access to the Site and/or Off-Site in an emergency as he (acting reasonably) considers suitable in the circumstances; and

13.1.3 monthly progress meetings and site meetings are held and that the Board's Representative shall have the right to attend such monthly progress meetings and site meetings and to attend such other meetings as the Board's Representative may reasonably request.

Increased monitoring

13.2 If, following any viewing, visit or inspection made pursuant to Clause 13.1.1, it is discovered that there are defects in the Works or that Project Co has failed to comply with the Board's Construction Requirements or Project Co's Proposals, the Board's Representative may (without prejudice to any other right or remedy available to the Board) by notice to Project Co increase the level of monitoring of Project Co until such time as Project Co shall have demonstrated to the satisfaction of the Board that it is capable of performing and will perform all its obligations to the Board under this Agreement. Project Co shall compensate the Board for any reasonable additional costs incurred as a result of such increased monitoring.

Right to Open Up

13.3 Subject to Clause 13.4, the Board's Representative shall have the right at any time prior to the Actual Completion Date to request Project Co to open up and inspect any part or parts of the Works where the Board's Representative reasonably believes that such part or parts of the Works is or are defective and Project Co shall comply with such request.

13.4 Prior to exercising his right pursuant to Clause 13.3 above, the Board's Representative shall notify Project Co of his intention to exercise such right, setting out detailed reasons.

13.5 If, following the exercise by the Board's Representative of his right pursuant to Clause 13.3, the inspection shows that the relevant part or parts of the Works are not defective then Clause 29.3.4 shall apply.

13.6 If, following the exercise by the Board's Representative of his right pursuant to Clause 13.3, the inspection shows that the relevant part or parts of the Works is or are defective, Project Co shall rectify and make good such Defect(s) and any consequence of such rectification and/or making good Defect(s) shall be carried out by Project Co at no cost to the Board and Project Co shall not be entitled to any extension of time in relation to such rectification and making good of the Works.

13.7 If, following the exercise by the Board's Representative of his right pursuant to Clause 13.3, the Board's Representative is of the opinion that the inspection shows that the relevant part or parts of the Works is or are defective and Project Co does not agree with such opinion, the matter shall be determined in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

13.8 Without prejudice to the rights of the Board's Representative pursuant to this Clause 13 (*Right of Access of Board's Representative*) the parties acknowledge that the exercise of such rights shall not in any way affect the obligations of Project Co under this Agreement save as expressly set out in this Clause 13 (*Right of Access of Board's Representative*).

Safety during Construction

13.9 The provisions of Section 2 (*Safety During Construction*) of Schedule Part 6 (*Construction Matters*) shall apply to matters of safety.

13A BOARD'S RIGHT TO STOP PROJECT OPERATIONS DURING THE PROJECT TERM

13A.1 The Board's Representative shall have the right at any time during the Project Term to instruct Project Co to stop the Project Operations (or any part or parts thereof) and to allow him to inspect the Project Operations (or any part or parts thereof) if:

13A.1.1 the Board's Representative reasonably believes that Project Co is failing to carry out the Project Operations in accordance with:

(a) Appendix A *(Interface with Campus Site and/or Campus Facilities)* of the Board's Construction Requirements and/or the Interface Proposals; and/or

(b) any provision of this Agreement and such breach gives rise to an immediate and serious threat to the health and safety of any user of the Facilities and/or the Retained Estate during the Construction Phase; and/or

(c) paragraphs 4.4(b), 4.4(e), 4.5.1A, 4.5.12, 6.1.1, 6.1.2 and/or 7.5(j) of Sub-section C of the Board's Construction Requirements[1],

with any such breach hereinafter being referred to as a "**Stop Incident**"; or

13A.1.2 the Board's Representative reasonably believes that the carrying out of the Project Operations has or is likely to have a potentially adverse impact upon the Clinical Services at the Facilities and/or the clinical services at the RIE Facilities; or

13A.1.3 there is an occurrence of a Major Incident during the Construction Phase.

13A.2 In the event that Project Co receives an instruction from the Board's Representative to stop the Project Operations pursuant to Clause 13A.1 above, then Project Co shall immediately stop the Project Operations (or relevant part or parts thereof) until such time as it receives an instruction from the Board's representative pursuant to Clause 13A.6 below to re-start the Project Operations (or relevant part or parts thereof).

13A.3 If following the exercise by the Board's Representative of his right to stop the Project Operations pursuant to:

13A.3.1 Clause 13A.1.1, it is agreed or determined under the Dispute Resolution Procedure that no Stop Incident has occurred, then Clause 29.3.9 *(Delay Events)* shall apply;

13A.3.2 Clause 13A.1.2, then Clause 29.3.10 *(Delay Events)* shall apply;

13A.3.3 Clause 13A.1.3, then Clause 29.3.11 *(Delay Events)* shall apply.

[1] Essentially covering noise dust pollution and mud on roads etc and also the existing sewer and possible gas pipe that may continue to run under the Site.

13A.4 If following the exercise by the Board's Representative of his rights pursuant to Clause 13A.1.1, the inspection shows that one or more Stop Incident(s) have occurred, Project Co shall rectify and make good such Stop Incident(s) and any consequence of such rectification and/or making good such Stop Incident(s) shall be carried out by Project Co at no cost to the Board and Project Co shall not be entitled to any extension of time in relation to such rectification and making good of such Stop Incident(s).

13A.5 If following the exercise by the Board's Representative of his right pursuant to Clause 13A.1.1 the Board's Representative is of the opinion that the inspection shows that one or more Stop Incident(s) have occurred and Project Co does not agree with such opinion, the matter shall be determined in accordance with Schedule Part 20 *(Dispute Resolution Procedure).*

13A.6 Without prejudice to Clause 13A.7, following the exercise of the Board's Representative of his rights pursuant to Clause 13A.1, the Board's Representative shall have the right to instruct Project Co to re-start the Project Operations.

13A.7 Without prejudice to the rights of the Board's Representative pursuant to this Clause 13A *(Board's right to stop Project Operations during the Project Term)* the parties acknowledge that the exercise of such rights shall not in any way affect the obligations of Project Co under this Agreement save as expressly set out in this Clause 13A *(Board's right to stop Project Operations during the Project Term).*

14. PROGRAMME AND DATES FOR COMPLETION

Dates for Completion

14.1 Project Co shall complete the Works by the Completion Date. Without prejudice to Clause 40 (*Project Co Event of Default*), 42(*Board Voluntary Termination*), 46(*Compensation on Termination*) and 47 (*Consequences of Termination*) the Board shall not be entitled to claim liquidated or general damages in respect of any delay which elapses between the Completion Date and the Actual Completion Date.

The Programme

14.2 Any Programme submitted in accordance with the provisions set out below shall be prepared in accordance with Good Industry Practice and shall be in sufficient detail so as to enable the Board's Representative to monitor the progress including all commissioning activities and likely future progress of the Works.

14.3 The initial Programme is set out at Schedule Part 7 (*The Programme*). Any change to the Programme shall only be made in accordance with this Clause 14 (*Programme and Dates for Completion*) and Schedule Part 8 (*Review Procedure*). Project Co shall promptly submit to the Board's Representative a copy of any version of the Programme varied in accordance with this Clause 14 (*Programme and dates for Completion*) and Schedule Part 8 (*Review Procedure*).

14.4 If it appears to the Board's Representative at any time that the actual progress of the Works has significantly fallen behind the Programme, then the Board's Representative shall be entitled to require Project Co to submit to the Board's Representative a report identifying the reasons for the delay and, unless the event causing the delay is still subsisting and it is not possible to predict with any certainty when the delay might come to an end, require Project Co (at the Board's option):

14.4.1 to produce and submit to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*) a revised Programme showing the manner and the periods in which the Works will be carried out to ensure completion; and/or

14.4.2 to produce and submit to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*) a revised Programme showing the steps which are to be taken to eliminate or reduce the delay.

Early completion

14.5 Notwithstanding that the Works may have been completed in accordance with this Agreement, the Actual Completion Date may only occur on a date on or after the Completion Date unless the Board, in its absolute discretion, agrees otherwise in writing.

14.6 Not Used.

15. INDEPENDENT TESTER

Appointment

15.1 The parties have on or prior to the date of this Agreement, in compliance with all Law relating to procurement which is applicable to either party, appointed a suitably qualified and experienced consultant to act as the Independent Tester for the purposes of this Agreement upon the terms of the Independent Tester Contract.

Changes to terms of appointment

15.2 Neither the Board nor Project Co shall without the other's prior written approval (not to be unreasonably withheld or delayed):

15.2.1 terminate, repudiate or discharge the Independent Tester Contract or treat the same as having been terminated, repudiated or otherwise discharged;

15.2.2 waive, settle, compromise or otherwise prejudice any rights or claims which the other may from time to time have against the Independent

Tester; or

15.2.3 vary the terms of the Independent Tester Contract or the service performed or to be performed by the Independent Tester.

15.3 The parties shall comply with and fulfil their respective duties and obligations arising under or in connection with the Independent Tester Contract.

Co-operation

15.4 The parties agree to co-operate with each other generally in relation to all matters within the scope of or in connection with the Independent Tester Contract. All instructions and representations issued or made by either of the parties to the Independent Tester shall be simultaneously copied to the other and both parties shall be entitled to attend all inspections undertaken by or meetings involving the Independent Tester.

Replacement

15.5 If the Independent Tester's appointment is terminated otherwise than for full performance, the parties shall liaise and co-operate with each other in order to appoint, in accordance with this Clause 15.5, a replacement consultant to act as the Independent Tester as soon as reasonably practicable. The identity of any such replacement shall be as agreed by the parties and the terms of his appointment shall, unless otherwise agreed, be as set out in the Independent Tester Contract.

15.6 If the parties fail to agree the identity and/or terms of a replacement Independent Tester in accordance with Clause 15.5 within ten (10) Business Days of the original Independent Tester's appointment being terminated then such disagreement shall be referred for resolution in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

16. EQUIPMENT

Project Co shall comply with the provisions of Schedule Part 11 (*Equipment*) in respect of Equipment.

17. PRE-COMPLETION COMMISSIONING AND COMPLETION

17.1 Not less than six (6) months before the Completion Date, the Board shall provide Project Co with a draft of the Final Commissioning Programme as jointly developed by the Board and Project Co in accordance with the provisions of Clause 17.2 and 17.3. Project Co shall provide the Board with comments on the draft Final Commissioning Programme submitted to it within fifteen (15) Business Days. The parties shall, within fifteen (15) Business Days of receipt by the Board of Project Co's comments agree the terms of the Final Commissioning Programme provided that the Board may by prior notice to Project Co change the scope and time of the Board's Commissioning and reimburse Project Co its reasonable costs

incurred as a result of such change in scope or time. If the parties are unable to agree the Final Commissioning Programme or the change in scope or time of the Board's Commissioning by three (3) months, the matter shall be referred for determination in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

17.2 The Final Commissioning Programme shall be in accordance with the Outline Commissioning Programme and shall impose no greater or more onerous obligations on the Board than those set out in the Outline Commissioning Programme (unless otherwise agreed by the Board in its absolute discretion). The Final Commissioning Programme shall then replace the Outline Commissioning Programme.

17.3 The Final Commissioning Programme shall describe the steps necessary, the party responsible for taking each of such steps and the timing and sequence of each of such steps to ensure:

17.3.1 that Project Co's Pre-Completion Commissioning and the Board's Commissioning will not delay the Actual Completion Date from occurring by the Completion Date; and

17.3.2 that Project Co's Post Completion Commissioning and the Board's Post Completion Commissioning are completed by the Commissioning End Date.

17.4 The parties shall procure that the steps that they are responsible for carrying out and completing pursuant to the Final Commissioning Programme include, [in the case of Project Co's activities, the activities described at paragraph [ ] of the Board's Construction Requirements].

17.5 Project Co shall notify the Independent Tester and the Board's Representative of the date when Project Co (acting reasonably) considers that the Works will be complete in accordance with the Board's Construction Requirements, the Completion Criteria and this Agreement not less than three (3) months prior to such anticipated completion. Such notification shall trigger the activities of the Independent Tester under this Clause.

17.6 The parties each undertake to co-operate with the Independent Tester to ensure that the Independent Tester is familiar with all necessary aspects of the Project for the purposes of its role as described in this Clause.

Commissioning prior to Completion Date

17.7 Project Co shall:

17.7.1 undertake Project Co's Pre-Completion Commissioning in accordance with the Final Commissioning Programme; and

17.7.2 permit the Board to undertake the Board's Commissioning including permitting specialist contractors engaged by the Board to deliver and install equipment on such dates as agreed between the Board and Project Co, in accordance with the Final Commissioning Programme

and the Board shall undertake the Board's Commissioning in accordance with the Final Commissioning Programme and so as not to cause material damage to the Works.

17.8 Project Co shall give written notice to the Independent Tester and the Board of the commencement of Project Co's Pre-Completion Commissioning and shall ensure that the Independent Tester and the Board's Representative are invited to witness all of, and are provided with all information they may reasonably require in relation to, Project Co's Pre-Completion Commissioning] and that the Independent Tester is invited to comment on Project Co's Pre-Completion Commissioning.

17.9 Project Co shall (or shall procure that the Contractor shall), give the Board access to the Facilities and the Retained Estate Handback Infrastructure at such times as may be set out in the Final Commissioning Programme to enable the Board to undertake the Board's Commissioning in accordance with the Final Commissioning Programme for the period prior to completion. When exercising such rights the Board shall comply with all relevant safety procedures, which shall include any relevant construction phase plans and health and safety plans for the construction of the Facilities and the Retained Estate Handback Infrastructure , the Contractor's Site Rules from time to time and any reasonable directions with regard to site safety that may be issued by or on behalf of the Contractor's Site Manager from time to time.

Pre-Completion inspection

17.10 Without prejudice to the notice periods in respect of the Works which are set out in Appendix A of the Board's Constructions Requirements in respect of which notice of completion is to be given by Project Co, Project Co shall in addition give the Independent Tester and the Board's Representative not less than twenty (20) Business Days notice and not more than thirty (30) Business Days notice of the date upon which Project Co considers that the Works will be complete and the tests on completion required to be performed in accordance with the Final Commissioning Programme will be carried out. Following receipt of the notice specified in this Clause 17.10 (*Pre-Completion Inspection*) the Board's Representative and the Independent Tester shall be entitled to inspect the Works on the date or dates reasonably specified by Project Co in accordance with this Clause 17.10 (*Pre-Completion Inspection*), and to attend any of the tests on completion. Project Co shall, if so requested, accompany the Board's Representative and the Independent Tester on any such inspection.

Pre-Completion matters

17.11 The parties shall procure that the Independent Tester, within five (5) Business Days of any inspection made pursuant to Clause 17.10 (*Pre-Completion Inspection*), notifies Project Co and the Board of any outstanding matters (including, without limitation, the repetition of any of the tests on completion which are required to be carried out and passed in accordance with the Final Commissioning Programme) which are required to be attended to before the

Works can be considered to be complete in accordance with the Board's Construction Requirements, Project Co's Proposals and the Completion Criteria. Project Co shall attend to such matters and shall, if necessary, give the Independent Tester further notices in accordance with Clause 17.10 (*Pre-Completion Inspection*) (but dealing only with matters raised in the notification under this Clause 17.11 (*Pre-Completion Matters*)) so that the procedures in Clause 17.10 (*Pre-Completion Inspection*) and this Clause 17.11 (*Pre-Completion Matters*) are repeated as often as may be necessary to ensure that all outstanding matters in relation to the Works are attended to.

Completion Certificate

17.12 Pursuant to the terms of the Independent Tester Contract, the parties shall procure that the Independent Tester, when he is satisfied that the Facilities and the Retained Estate Handback Infrastructure are complete in accordance with the Completion Criteria, issues a Certificate of Practical Completion to that effect to the Board and to Project Co.

17.13 Without prejudice to Clauses 17.14 and 17.17, the issue of the Certificate of Practical Completion shall, in the absence of manifest error, bad faith or fraud, be conclusive evidence (but only for the purpose of ascertaining the Payment Commencement Date), that the Facilities and the Retained Estate Handback Infrastructure were complete in accordance with the Completion Criteria on the date stated in the Certificate of Practical Completion.

17.14 The Independent Tester shall issue the Certificate of Practical Completion notwithstanding that there are Snagging Matters. Where there are Snagging Matters, the parties shall procure that the Independent Tester shall, within [ten (10)] Business Days of the date of issue of the Certificate of Practical Completion, issue a Snagging Notice which shall specify the Snagging Matters and an estimate of the cost of rectifying such Snagging Matters.

17.15 Following the issue of a Snagging Notice, Project Co shall, in consultation with the Board's Representative and in such manner as to cause as little disruption as reasonably practicable to the Board's Post Completion Commissioning and the Board's use of the Facilities and the Retained Estate Handback Infrastructure and the Retained Estate, rectify all Snagging Matters within ten (10) Business Days of the issue of the Snagging Notice.

17.16 If, within ten (10) Business Days of the issue of the Snagging Notice, Project Co has failed to rectify the Snagging Matters specified in the Snagging Notice the Board may by itself (or engage others to) carry out the works necessary to rectify the Snagging Matters, at the risk and cost of Project Co.

17.17 The issue of the Certificate of Practical Completion shall in no way affect the obligations of Project Co under this Agreement including in respect of any Defects.

As-built specification

17.18 Within ten (10) Business Days, after the issue of the Certificate of Practical

Completion, Project Co shall provide to the Board three (3) hard copies and one (1) electronic copy of the as-built building specification, together with all drawings relating to the Works.

18. POST COMPLETION COMMISSIONING

Commissioning

18.1 Project Co and the Board shall respectively undertake and complete Project Co's Post-Completion Commissioning and the Board's Post Completion Commissioning, in accordance with the Final Commissioning Programme. Both parties shall, at all times, and in particular in the period between the Actual Completion Date and the Actual Commissioning End Date, use reasonable endeavours to assist the other party to ensure compliance with the Final Commissioning Programme.

Information

18.2 Project Co shall ensure that the Board's Representative is provided with all the information he may reasonably require in relation to Project Co's Post-Completion Commissioning and the Board shall ensure that Project Co is provided with all information Project Co may reasonably require in relation to the Board's Post Completion Commissioning.

18.3 If the Board's Representative, acting reasonably, makes any comment in relation to the carrying out of Project Co's Post-Completion Commissioning, such comments shall be taken into account by Project Co and if Project Co, acting reasonably, makes any comment in relation to the carrying out of the Board's Post Completion Commissioning, such comment shall be taken into account by the Board.

18.4 On the completion of Project Co’s Post-Completion Commissioning and the Board’s Post Completion Commissioning the Independent Tester shall issue the Commissioning Completion Certificate.

Operational Manuals

18.5 Project Co shall make available on the Site to the Board's Representative:

18.5.1 at least twenty four (24) weeks prior to the anticipated Actual Completion Date, one (1) electronic copy and three (3) hard copies of a draft operation and maintenance manual in sufficient detail to allow the Board to plan for the safe and efficient operation of the Facilities and the Retained Estate Handback Infrastructure;

18.5.2 on or before the Actual Completion Date one (1) electronic copy and three (3) hard copies of a final draft operation and maintenance manual in sufficient detail to allow the Board to operate and use the

Facilities and the Retained Estate Handback Infrastructure safely and efficiently;

18.5.3 within ten (10) Business Days following the Actual Completion Date, the principal operation and maintenance manual;

in each case including all manufacturers' instructions relating to Equipment installed by or on behalf of Project Co.

18.6 Project Co shall provide to the Board such information after the Actual Completion Date as relates to any Snagging Matters or rectification of Defect as is reasonably necessary to allow for the updating of any of the items listed in Clause 18.5.

18.7 On termination of this Agreement (howsoever arising) prior to the provision by Project Co in accordance with Clause 18.5 of the items listed therein, Project Co shall within ten (10) Business Days of such termination provide in triplicate hard copies and a single electronic copy of any operating and maintenance manual not yet provided (completed as appropriate to the date of termination) to the Board.

19. FOSSILS AND ANTIQUITIES

Property

19.1 As between the parties, all fossils, antiquities, and other objects having artistic, historic or monetary value and human remains which may be found on or at the Site and Off-Site are or shall become, upon discovery, the absolute property of the Board.

Discovery

19.2 Upon the discovery of any such item during the course of the Works, Project Co shall:

19.2.1 immediately notify the Board's Representative of such discovery;

19.2.2 take all steps not to disturb the object and, if necessary, cease any Works in so far as the carrying out of such Works would endanger the object or prevent or impede its excavation; and

19.2.3 take all necessary steps to preserve the object in the same position and condition in which it was found.

Action

19.3 The Board shall procure that the Board's Representative promptly, and in any

event within ten (10) Business Days of receipt of notice pursuant to Clause 19.2.1, issues an instruction to Project Co specifying what action the Board's Representative requires Project Co to take in relation to such discovery.

19.4 Project Co shall promptly and diligently comply with any instruction issued by the Board's Representative referred to in Clause 19.3 above (except and to the extent that such instruction constitutes an Board Change pursuant to Clause 19.6 below in which case the provisions of Schedule Part 16 (*Change Protocol*) shall apply), at its own cost.

19.5 If directed by the Board's Representative, Project Co shall allow representatives of the Board to enter the Site and Off-Site for the purposes of removal or disposal of such discovery provided that such entry shall be subject to the Board complying with all relevant safety procedures, which shall include any relevant construction phase plans and health and safety plans for the construction of the Facilities and the Retained Estate Handback Infrastructure, the Contractor's Site Rules from time to time and any reasonable directions with regard to site safety that may be issued by or on behalf of the Contractor's Site Manager from time to time.

19.6 If, in relation to such discovery, the Board requires Project Co to carry out works (being any work of alteration, addition, demolition or extension or variation in the Works) which are not works which would be necessary for the purpose of compliance with Law or any Consents, it must issue an Board Change Notice in accordance with the provisions of Schedule Part 16 (*Change Protocol*).

PART 4: QUALITY ASSURANCE

20. QUALITY ASSURANCE

Quality Plans and Systems

20.1 Project Co shall procure that all aspects of the Project Operations are the subject of quality management systems in accordance with the provisions of this Clause 20 (*Quality Assurance*).

20.2 The quality management systems referred to in Clause 20.1 above shall be reflected in appropriate quality plans, the standard of which shall be consistent with BS EN ISO 9001 or 9002 (as the case may be) or any equivalent standard which is generally recognised as having replaced them (or either of them).

20.3 Without limitation to the generality of Clause20.2, there shall be:

20.3.1 a Design Quality Plan;

20.3.2 a Construction Quality Plan; and

20.3.3 a Services Quality Plan for each Service,

provided that the Design Quality Plan and the Construction Quality Plan may be incorporated into one document.

20.4 Project Co shall procure that the Project Operations are carried out in compliance with the Quality Plans. All Quality Plans shall be submitted to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*) and Project Co shall not be entitled to implement or procure the implementation of any Quality Plan unless Project Co is entitled to proceed with such implementation pursuant to Schedule Part 8 (*Review Procedure*).

20.5 Project Co shall implement the quality management systems referred to in Clause 20.1 and shall procure that:

20.5.1 the Contractor implements the Design Quality Plan;

20.5.2 the Contractor implements the Construction Quality Plan;

20.5.3 each Service Provider implements the relevant Services Quality Plan for each Service being provided by that Service Provider.

20.6 Where any aspect of the Project Operations is performed by more than one contractor or subcontractor, then the provisions of this Clause 20 (*Quality Assurance*) (in so far as relevant or appropriate to the activities to be performed by such contractor or subcontractor) shall apply in respect of each of such contractors or subcontractors, and references in this Clause 20 (*Quality Assurance*) to the "**Contractor**" or the "**Service Provider**" shall be construed accordingly. To avoid doubt, this Clause shall not be construed as requiring subcontractors of the Contractor or the Service Provider to have their own quality plans but only to comply with the Design Quality Plan and the Construction Quality Plan or the relevant aspects of the Services Quality Plan (as the case may be).

20.7 Project Co shall from time to time submit to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*) any changes to any of the Quality Plans required for such Quality Plan to continue to comply with the requirements set out in Clause 20.2. The Board's Representative may raise comments on any such proposed change only on the grounds set out in paragraph 3 of Schedule Part 8 (*Review Procedure*).

20.8 If there is no objection under Schedule Part 8 (*Review Procedure*) to a change to any Quality Plan proposed pursuant to Clause 20.7, the Quality Plan shall be amended to incorporate such change.

Quality Manuals and Procedures

20.9 If any Quality Plan refers to, relies on or incorporates any quality manual or procedure, then such quality manual or procedure or the relevant parts of it shall be submitted to the Board's Representative at the time that the relevant Quality Plan or part of (or change to) a Quality Plan is submitted in accordance with Schedule Part 8 (*Review Procedure*), and the contents of such quality manual or procedure shall be taken into account in the consideration of the relevant Quality Plan or part of (or change to) a Quality Plan in accordance with Schedule Part 8 (*Review Procedure*).

Quality Management

20.10 Project Co shall maintain a quality management system which shall:

20.10.1 ensure the effective operation of the quality systems described in this Clause 20 (*Quality Assurance*);

20.10.2 cause an audit of the quality systems at regular intervals and the findings of such audit will be reported to the Board's Representative;

20.10.3 require review of all quality systems at intervals agreed with the Board's Representative to ensure their continued suitability and effectiveness;

20.10.4 require liaison with the Board's Representative on all matters relating to quality management; and

20.10.5 require production of reports and their delivery to Project Co.

Quality Monitoring

20.11 The Board's Representative may carry out audits of Project Co's quality management system (including all relevant Quality Plans and any quality manuals and procedures) to establish that Project Co is complying with Clauses 20.1 and 20.3. The Board's Representative may carry out such audits at approximate intervals of three (3) months and may carry out other periodic monitoring, spot checks and auditing of Project Co's quality management systems. Project Co shall procure that the Board's Representative shall have an equivalent right in respect of the Contractor's and the Service Providers' quality management systems. Project Co shall co operate, and shall procure that any Sub-Contractor co-operates, with the Board's Representative including providing him with all information and documentation which he reasonably requires in connection with his rights under this Clause.

PART 5: NOT USED

21. NOT USED

PART 6: SERVICES

22. THE SERVICES

General obligations

22.1 Throughout the Operational Term Project Co shall provide (or procure that the Service Providers provide) the Services in accordance with:

22.1.1 the Service Level Specification;

22.1.2 the Method Statements; and

22.1.3 the terms of this Agreement

22.2 To avoid doubt the obligations in Clauses 22.1.1, 22.1.2 and 22.1.3, are independent obligations and:

22.2.1 the fact that Project Co has complied with the Method Statements shall not be a defence to an allegation that Project Co has not satisfied the Service Level Specification; and

22.2.2 the fact that Project Co has complied with the Service Level Specification shall not be a defence to an allegation that Project Co has not satisfied the Method Statements;

provided that where there is any conflict between the Service Level Specification and the Method Statements the Board shall be entitled (in its sole discretion) to decide which shall take precedence and inform Project Co of its decision and Project Co shall, at its own cost, be obliged to implement the Board's decision.

Commencement of Services

22.3 Project Co shall procure that the provision of the Services commences on the Actual Completion Date.

Project Co Services Changes

22.4 Project Co may at any time submit to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*) proposals for amendments to or substitution for the Method Statements or any part of them. If there is no comment on such proposed amendment or substitution (on the grounds set out in paragraph 3 of Schedule Part 8 (*Review Procedure*)), then the Method Statements as so amended or substituted shall be the Method Statements for the purposes of this Agreement, subject to any further amendment or substitution to which there has

been no comment in accordance with Schedule Part 8 (*Review Procedure*).

22.5 To avoid doubt, an amendment to or substitution for the Method Statements proposed pursuant to Clause 22.4 shall not be a Qualifying Change entitling Project Co to any payment (or other compensation) or to any relief from the performance of its obligations under this Agreement.

No disruption

22.6 Project Co shall perform the Services so as to co-ordinate with the Board's operations on the Site, the Retained Site and Off-Site and/or in the Facilities and/or the Retained Estate and shall take all reasonable care to ensure that it does not interfere with the operations of the Board and/or Board Party.

23. MAINTENANCE

Programmed Maintenance Works

23.1 No later than three (3) months prior to the Completion Date Project Co shall submit to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*) a Schedule of Programmed Maintenance for the period from the Completion Date to the expiry of that Contract Year.

23.2 Not later than three (3) months prior to the commencement of each subsequent anniversary of the Completion Date Project Co shall submit to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*) a Schedule of Programmed Maintenance for the next succeeding Contract Year.

23.3 Each Schedule of Programmed Maintenance shall contain the following information (the "**Programmed Maintenance Information**"):

23.3.1 details of the proposed start and end dates for each period of Programmed Maintenance, the works to be carried out and the proposed hours of work; and

23.3.2 details of any effect of the Programmed Maintenance on the delivery of any of the Services and/or the activities of the Board; and

23.3.3 any other information which is required pursuant to Appendix A of the Board's Construction Requirements and/or of Clause 9 *(Nature of Land Interests).*

23.4 Not later than twenty (20) Business Days prior to the commencement of any quarter (being a three month period commencing on 1 April, 1 July, 1 October or 1 January), Project Co may submit to the Board's Representative for approval in accordance with Schedule Part 8 (*Review Procedure*) a revision to the Schedule of Programmed Maintenance for the Contract Year in which the relevant quarter

falls showing the effect of the proposed changes to the Programmed Maintenance Information. If the Board's Representative does not raise comments on such proposed revision in accordance with Schedule Part 8 (*Review Procedure*), the Schedule of Programmed Maintenance as revised shall become the Schedule of Programmed Maintenance in respect of that quarter.

23.5 Where the Board's Representative raises comments in respect of any Programmed Maintenance periods and/or hours of work shown in a Schedule of Programmed Maintenance in accordance with paragraph 3 of Schedule Part 8 (*Review Procedure*), he shall indicate whether, and if so when, the Programmed Maintenance can be re-scheduled and Project Co shall amend the relevant Schedule of Programmed Maintenance accordingly.

23A LIFECYCLE REPLACEMENT

Lifecycle Replacement

23A.1 No later than two (2) months prior to the Actual Completion Date, Project Co shall submit to the Board's Representative in accordance with Schedule Part 8 *(Review Procedure)* a schedule of Lifecycle Replacement for the Facilities for the Project Term.

23A.2 Not later than two (2) months prior to each subsequent anniversary of the Actual Completion Date, Project Co shall submit to the Board's Representative in accordance with Schedule Part 8 *(Review Procedure)* a Schedule of Lifecycle Replacement for the Facilities for the next succeeding Contract Year.

23A.3 Each Schedule of Lifecycle Replacement shall contain the following information:

23A.3.1 details of all items of Plant and Equipment and any other asset for which Lifecycle Replacement is planned during the Project Term; and

23A.3.2 the Contract Year (or Years) when the Lifecycle Replacement is planned to take place.

23A.4 Each Schedule of Lifecycle Replacement shall contain the following additional information for the items scheduled for the following Contract Year:

23A.4.1 details of all items of Plant and Equipment and any other asset for which Lifecycle Replacement is planned during the Contract Year;

23A.4.2 any changes in any Plant, Equipment or any other assets which appear in the Schedule of Lifecycle Replacement since the previous annual revision of the Schedule of Lifecycle Replacement;

23A.4.3 evidence which demonstrates that Project Co has taken into account in the proposed Lifecycle Replacement the cost to the Board of

occupation and operation of the Facilities, which may be affected by Project Co's proposals for Lifecycle Works, including without limitation, energy consumption and the Board's maintenance and cleaning obligations;

23A.4.4 details of Group 1 Equipment to be replaced and commentary on how this has been determined with particular reference to any changes to the Board Services which the Board has made Project Co aware of, which mean that a like for like replacement of Group 1 Equipment may not be appropriate or represent best value for money to the Board;

23A.4.5 details of the proposed start and end dates for the Lifecycle Replacement, the works to be carried out and the proposed hours of work, and any other information which the Board may reasonably require.

23A.4.6 details of any effect of the Lifecycle Replacement on the delivery of any of the Services and/or the activities of the Board; and

23A.5 Where Lifecycle Replacement provides an opportunity to improve whole life costs, such as through lower energy consumption, longer life, or lower replacement costs, Project Co shall provide the Board with the details and benefits of any alternative products or solutions.

23A.6 The Board's Representative may comment on each Schedule of Lifecycle Replacement submitted by Project Co in accordance with this Clause 23A in accordance with Schedule Part 8 *(Review Procedure).* Project Co shall consider the Board's Representative comments but, for the avoidance of doubt (and without prejudice to Project Co's obligations under this Agreement), Project Co shall not be obliged to amend the Schedule of Lifecycle Replacement to reflect any comments which the Board's Representative may make in accordance with the provisions of paragraph 3.11 of Schedule Part 8 *(Review Procedure)*.

Programmed and Unprogrammed Maintenance

23.6 Project Co shall not carry out any Programmed Maintenance or Unprogrammed Maintenance Works or Lifecycle Replacement save:

23.6.1 in accordance with a Schedule of Programmed Maintenance or Schedule of Lifecycle Replacement to which no objection has been made under Schedule Part 8 (*Review Procedure*) or, where comment has been raised in respect of the Programmed Maintenance periods and/or time, the Schedule of Programmed Maintenance or Schedule of Lifecycle Replacement has been amended pursuant to the Service Level Specification;

23.6.2 in accordance with the procedures set out in Clause 23.8; or

23.6.3 in an emergency, in accordance with Clause 23.9.

23.7 Notwithstanding that there has been no objection to a Schedule of Programmed Maintenance or Schedule of Lifecycle Replacement, the Board's Representative may, at any time, require Project Co to accelerate or defer any Programmed Maintenance or Lifecycle Replacement by giving written notice to Project Co, (unless otherwise agreed) not less than twenty (20) Business Days prior to the scheduled date for carrying out such Programmed Maintenance or Lifecycle Replacement, which notice shall set out the time and/or periods at or during which the Board requires the Programmed Maintenance or Lifecycle Replacement to be performed. Project Co shall notify the Board of the amount of any additional reasonable costs which it will incur as a direct consequence of such acceleration or deferment (the "**Estimated Increased Maintenance and Lifecycle Costs**") within five (5) Business Days of the receipt of the written notice advising of the requirement for an acceleration or deferment of the Programmed Maintenance or Schedule of Lifecycle Replacement. The Board shall, within a further period of five (5) Business Days following receipt by the Board of notification of the amount of the Estimated Increased Maintenance and Lifecycle Costs, at the Board's option, either confirm or withdraw its request to accelerate or defer the Schedule of Programmed Maintenance and Schedule of Lifecycle Replacement. If the Board does not respond within this five (5) Business Day period, the request shall be deemed to have been confirmed. The Board shall reimburse Project Co the direct and reasonable costs actually incurred by Project Co as a consequence of such acceleration or deferment up to, but not exceeding, the amount of the Estimated Increased Maintenance and Lifecycle Costs.

23.8 If, in circumstances other than an emergency, the need arises for Maintenance Works or Lifecycle Replacement (excluding any works of a *de minimis* nature in respect of which the parties have agreed this Clause 23.8 shall not apply and excluding works carried out for the purpose of Rectification, which shall take place in accordance with the provisions of Schedule Part 14 (*Payment Mechanism*)), which are not scheduled to be carried out as part of the Programmed Maintenance or Lifecycle Replacement ("**Unprogrammed Maintenance Work**"), Project Co shall not carry out any Unprogrammed Maintenance or Lifecycle Replacement Work unless and until the Board's Representative has approved the proposed commencement date, the proposed hours of work and estimated duration of the requisite Unprogrammed Maintenance or Lifecycle Replacement Works in accordance with the provisions of paragraph 3.9 of Schedule Part 8 (*Review Procedure*). Nothing in this Clause 23.8 (including any approval of the Board pursuant to Schedule Part 8 (*Review Procedure*) shall prevent the Board from making any deductions in calculating the Monthly Service Payments pursuant to the Payment Mechanism.

Emergency and Unprogrammed Maintenance

23.9 If, as a result of an emergency, the need arises for Unprogrammed Maintenance Works, Project Co may carry out such Unprogrammed Maintenance Works provided that Project Co shall notify the Board's Representative as soon as possible (and in any event within the timescale set out in accordance with paragraph FM44 of the Service Level Specification of the occurrence of the emergency) of the extent of the necessary Unprogrammed Maintenance Works and the reasons for them. Project Co shall take all reasonable steps to minimise the duration of such Unprogrammed Maintenance Works. Nothing in this Clause 23.9 shall prevent the Board from making any deductions in calculating the Monthly Service Payments pursuant to the Payment Mechanism.

23.10 Where Programmed Maintenance and/or Lifecycle Replacement scheduled to be carried out in accordance with the Schedule of Programmed Maintenance has been deferred by the Board's Representative under Clause 23.7, Project Co shall not be treated as having failed to perform the relevant Service on account of the condition of the Facilities or any part of them from the time the Programmed Maintenance and/or Lifecycle Replacement was scheduled to have been completed until the time the deferred Programmed Maintenance and/or Lifecycle Replacement was scheduled to have been completed, but not afterwards, provided always, to avoid doubt, that Project Co shall not be relieved from the consequences of any failure to maintain the Facilities in respect of any period prior to the period for performing the particular work according to the Schedule of Programmed Maintenance or the Schedule of Lifecycle Replacement.

5 Year Maintenance Plan

23.11 Project Co shall deliver to the Board's Representative not less than three (3) months prior to the Completion Date, and thereafter not less than three (3) months prior to the commencement of each Contract Year the latest version of the 5 Year Maintenance Plan.

23.12 The Board shall have a right to inspect the Facilities and the Maintenance Works to ensure that the Facilities are being maintained in accordance with the Service Level Specification and that the Facilities comply with the Board's Construction Requirements and Project Co's Proposals throughout the Project Term. The Board may appoint an independent third party for the purposes of carrying out any such inspection and shall make known the findings to Project Co and the Funders. The parties shall then meet to discuss any implications of such findings and any steps that are necessary to remedy any failure to comply with such obligations. Project Co shall (subject to Clause 33 (*Change Protocol*)) take into account such discussions in the next Schedule of Programmed Maintenance so that any failure to comply with such obligations shall be remedied.

Board's Maintenance Obligations

23.13 The Board's Maintenance Obligations are as follows:

23.13.1 not less frequently than once in every five (5) years from the Actual Completion Date, in a good and workmanlike manner to make good plaster and other interior wall and ceiling finishes and decoration in all such parts of the interior of the Functional Areas as were plastered, finished and/or decorated by Project Co as part of the Works or in implementing an Board Change;

23.13.2 Not Used;

23.13.3 Not Used;

23.13.4 as often as is necessary to maintain anything provided by the Board under a Derogated Low Value Change; and

23.13.5 to ensure that all portable electrical appliances that are connected to the electricity supply in the Facilities by the Board and Board Parties have been tested in accordance with Law and the "**Code of Practice for In-service Inspection and Testing of Electrical Equipment**" published from time to time by the Institution of Electrical Engineers.

23.14 Subject to Clause 23.21, the Board must carry out and perform the Board's Maintenance Obligations or procure that the Board's Maintenance Obligations are carried out and performed as often as required by Clause 23.13 and in accordance with Good Industry Practice. Without prejudice to the Board's rights under Clause 23.7, the Board's Maintenance Obligations must be scheduled by the Board so as not to interfere with Project Co carrying out Programmed Maintenance or Lifecycle Replacement in accordance with the Schedule of Programmed Maintenance or Schedule of Lifecycle Replacement and/or interfere with Project Co carrying out Unprogrammed Maintenance Work or Lifecycle Replacement in accordance with Clause 23.8.

23.15 If the Board is in breach of Clause23.14, Project Co may, while the breach is continuing, give a notice to the Board requiring it to carry out the relevant Board Maintenance Obligations. If the Board:

23.15.1 does not reply to Project Co in writing within ten (10) Business Days of the date of Project Co's notice with a programme for carrying out the relevant Board Maintenance Obligations within a period of time that is reasonable having regard to the nature of the breach, the reasonably foreseeable consequences of non-performance of the relevant Board Maintenance Obligations for the Services and Project Co's obligations under this Agreement; or

23.15.2 having provided such a programme, does not comply with it,

Project Co shall be entitled to perform the Board's Maintenance Obligations so far as necessary to prevent any reasonably foreseeable adverse effect on the Services and/or Project Co's obligations under this Agreement consequent upon the non-performance of the relevant Board Maintenance Obligations.

23.16 Project Co shall not carry out any Project Co's Remedial Services unless and until the Board's Representative, pursuant to this Clause 23.16, has approved or is deemed to have approved or has specified the proposed commencement date, the proposed hours of work and the estimated duration of Project Co's Remedial Services (together the "**PRS Timetable**"). Project Co must give the Board not less than twenty (20) Business Days notice of its proposed PRS Timetable. If the Board's Representative considers that the proposed PRS Timetable is not consistent with the principles set out in Appendix 2 to Schedule Part 8 (*Review Procedure*), he may specify an alternative PRS Timetable that is consistent with those principles, which shall be as near to the PRS Timetable proposed by Project Co as reasonably practicable. If the Board's Representative fails either to approve Project Co's proposed PRS Timetable or to specify an alternative PRS Timetable within ten (10) Business Days of receipt of Project Co's proposed PRS Timetable, he shall be deemed to have approved it.

23.17 The Board must allow Project Co and relevant Project Co Parties access to the Site and the Facilities:

23.17.1 for the purpose of monitoring the carrying out of Board's Maintenance Obligations; and

23.17.2 in accordance with the approved PRS Timetable for the purpose of carrying out any of Project Co's Remedial Services.

23.18 If the Board does not allow access to the Site and/or the Facilities as required pursuant to Clause 23.17.2, or otherwise prevents or interferes with Project Co and any relevant Project Co Party performing the PRS Remedial Works, Project Co may propose a new PRS Timetable in respect of the relevant Project Co's Remedial Services and Clause 23.16 shall apply.

23.19 In carrying out and performing Project Co's Remedial Services, Project Co must comply with the standards applicable to the relevant Board's Maintenance Obligations and Good Industry Practice and must use reasonable endeavours to match colours and other finishes to those that currently exist in the relevant part or parts of the Facilities.

23.20 The Board must reimburse Project Co all reasonable costs that it incurs in carrying out and performing Project Co's Remedial Services in accordance with this Clause 23.

23.21 Notwithstanding the terms of Clauses 23.14 to 23.19 above, Project Co is responsible for:

23.21.1 making good any defects in plaster and other interior wall and ceiling finishes and decoration provided by Project Co as part of the Works or in implementing an Board Change, caused by defective design or workmanship in the carrying out of the Works or in implementing the Board Change; and

23.21.2 making good any defects in plaster and other interior wall and ceiling finishes and decoration provided by Project Co as part of the Works or in implementing an Board Change (whether or not these have subsequently been replaced or renewed by the Board) and things referred to in Clause 23.13.4 consequential on any Programmed Maintenance or Unprogrammed Maintenance or any act or omission of Project Co.

22.22 The Board and Project Co shall co-operate with each other to coordinate any activities that the Board proposes to undertake to implement any of the Board's Maintenance Obligations and Project Co's Programmed Maintenance and Project Co must include the Board's intentions with regard to performing the Board's Maintenance Obligations in the Schedule of Programmed Maintenance for each Contract Year.

Energy for Repairs

23.23 Subject to Clause 23.24, the Board is entitled to be reimbursed by Project Co for

costs incurred by the Board for Utilities supplied to the Facilities during the Operational Term that are consumed in the process of Project Co or any Project Co Party carrying out operations to rectify an Availability Failure.

23.24 For the purpose of applying Clause 23.23 the cost of each Utility shall be considered separately and Clause 23.23 shall not apply if the costs concerned, in respect of the particular Availability Failure, do not exceed [the daily average cost based on bills paid by the Board to the supplier of the relevant Utility to the Facilities over the most recent 12-month period for which figures are available][2].

23.25 Where the Board claims reimbursement of Utilities costs pursuant to Clause 23.23 it must reasonably estimate those costs using all available evidence and send Project Co a statement showing its calculation of the amount claimed along with its supporting evidence. Unless Project Co disputes the statement within ten (10) Business Days of receipt, the Board will be entitled, pursuant to Clause 34.6, to set-off the amount claimed.

24. MONITORING OF PERFORMANCE

Monitoring

24.1 In carrying out the Services, Project Co shall, and shall procure that all Project Co Parties and any other persons for whom it is responsible shall, comply with the provisions of Schedule Part 12 (*Service Requirements*).

24.2 Project Co shall be responsible for monitoring its performance of this Agreement during the Operational Term, in the manner and at the frequencies set out in Schedule Part 12 (*Service Requirements*). Project Co shall provide the Board's Representative with relevant particulars of any aspects of its performance which fail to meet the requirements of this Agreement (unless otherwise notified in writing by the Board). The Board may at all reasonable times observe, inspect and satisfy itself as to the adequacy of the monitoring procedures (including without limitation carrying out sample checks).

Grounds for Warning Notices

24.3 If at any time during the Operational Term (other than by reason of a Force Majeure Event, a Relief Event or an Emergency):

24.3.1 the total Deductions for any Contract Month amount to more than 0.123% per cent of the Annual Service Payment for the current Contract Year; or

24.3.2 the total Deductions in each of any three Contract Months in any six consecutive Contract Months amount to more than 0.059% per cent of the Annual Service Payment for the current Contract Year,

[2] To be discussed with Bidders during the Dialogue Period.

the Board's Representative may serve a Warning Notice on Project Co, provided always that, to give Project Co time to take appropriate rectification measures, the Board's Representative shall not be entitled:

(a) to serve more than one (1) Warning Notice in any Contract Month;

(b) to serve a Warning Notice in any two (2) consecutive Contract Months to the extent that the same event has contributed to the Board's right to serve the Warning Notice, but provided that Project Co demonstrates to the Board that it has taken all reasonable steps to remedy the cause of that event.

Warning Notices Disputes

24.4 If Project Co disputes that the Board was or is entitled to serve a Warning Notice, Project Co may refer that dispute for determination under the Dispute Resolution Procedure for resolution. If, after the Board's Representative issues a Warning Notice, the parties subsequently agree, or it is determined under the Dispute Resolution Procedure that the Warning Notice was served without justification, that Warning Notice shall be recalled or shall be cancelled and deemed not to have been served.

Board's remedial rights

24.5 The provisions of Clauses 24.6 to 24.9 (inclusive) shall apply if the Board, acting reasonably, considers that it needs to take action in connection with the Services:

24.5.1 because of an immediate and serious threat to the health or safety of any user of the Facilities and/or the Retained Estate; or

24.5.2 to prevent or address material interruption in the provision of one or more of the Services; or

24.5.3 because of a risk of the ability of the Board to provide the relevant Board Services being prejudiced to a material degree.

24.6 If any of the circumstances set out in Clause 24.5 arise (without prejudice to its rights under Clause 40 (*Project Co Event of Default*) or any other express rights under this Agreement) and the Board wishes to take action (either by itself or by engaging others), the Board shall notify Project Co in writing of the following:

24.6.1 the action it wishes to take;

24.6.2 the reason for such action;

24.6.3 the date it wishes to commence such action;

24.6.4 the time period which it believes will be necessary for such action; and

24.6.5 to the extent practicable, the effect on Project Co and its obligation to provide the Services during the period such action is being taken.

24.7 Following service of such notice, the Board shall take such action as has been notified under Clause 24.6 and any consequential additional action as it reasonably believes is necessary (together, the "**Required Action**") and Project Co shall give all reasonable assistance to the Board while it is taking the Required Action. To the extent that the Board performs any of the obligations of Project Co hereunder or undertakes tasks that would otherwise be undertaken by Project Co pursuant to this Agreement, the Board shall perform such obligations or undertake such tasks to the same standard as would be required of Project Co under the terms of this Agreement.

24.8 If the Required Action is taken other than as a result of a breach by Project Co of its obligations under this Agreement, then for so long as and to the extent that the Required Action is taken, and this prevents Project Co from providing any part of the Services:

24.8.1 Project Co shall be relieved from its obligations to provide such part of the Services; and

24.8.2 in respect of this period in which the Board is taking the Required Action and provided that Project Co provides the Board with reasonable assistance (such assistance to be at the expense of the Board to the extent that additional costs are incurred), the Monthly Service Payments due from the Board to Project Co shall equal the amounts that Project Co would receive if it were satisfying all of its obligations and providing the Services affected by the Required Action in full over that period and the Board shall indemnify Project Co against all Direct Losses sustained by Project Co as a result of the Board taking the Required Action.

24.9 If the Required Action is taken as a result of a breach by Project Co of its obligations under this Agreement, then for so long as and to the extent that the Required Action is taken, and this prevents Project Co from providing any part of the Services:

24.9.1 Project Co shall be relieved of its obligations to provide such part of the Services; and

24.9.2 in respect of the period in which the Board is taking the Required Action, the Monthly Service Payments due from the Board to Project Co shall equal the amounts Project Co would receive if it were satisfying all of its obligations and providing the Services affected by the Required Action in full over that period, less an amount equal to all of the costs incurred by the Board in taking the Required Action (including, without limitation, an appropriate sum in respect of general staff costs and overheads).

Emergencies

24.10 If an Emergency arises during the Operational Term which cannot be dealt with by performance of the Services, the Board may instruct Project Co to procure that such additional or alternative services are undertaken by Project Co as and when required by the Board to ensure that the Emergency is dealt with and normal operation of the Facilities resumes as soon as is reasonably practicable.

24.11 The cost of any additional or alternative services provided by Project Co under Clause 24.10 shall be borne by the Board and paid in accordance with Clause 34 (*Payment*). The Board will not be entitled to levy Deductions in respect of any failure to provide the Services to the extent that such failure arises by reason of Project Co's compliance with Clause 24.10.

25 TUPE AND EMPLOYMENT MATTERS

No Employee Transfer

25.1 The Board and Project Co agree that there are no individuals presently employed by the Board or any other sub-contractor of the Board whose contracts of employment will, by virtue of the transfer to Project Co of responsibility for provision of (or procuring the provision by Service Providers of) any of the Services in accordance with this Agreement and in accordance with the Transfer Regulations, have effect after the date or dates of such transfer as agreed by the parties (each a "**Relevant Service Transfer Date**") (or at any other time) as if originally made between those persons and the relevant Service Provider.

25.2 If it is subsequently agreed or determined that there are persons presently employed by the Board or any other sub-contractor of the Board whose contracts of employment do have effect after the Relevant Service Transfer Date as if originally made between those persons and the relevant Service Provider ("**Transferring Staff**") then:

25.2.1 the Board shall within ten (10) Business Days of the date on which it was so agreed or determined have the opportunity to offer or procure the offer of a position as an employee of the Board to some or all of the Transferring Staff;

25.2.2 Project Co shall procure that no person to whom the Board has offered a position in accordance with Clause 25.2.1 shall be dismissed by reason of redundancy until the period for acceptance of such offer has expired and the person in question has not accepted such offer; and

25.2.3 subject to Clauses 25.2.1 and 25.2.2 Project Co or any Service Provider shall be entitled to dismiss any or all of the Transferring Staff by reason of redundancy provided that Project Co shall use and shall procure that any Service Provider shall carry out in the required manner any obligation to consult with the Transferring Staff or any of them, or their respective representatives, and shall use all reasonable

endeavours to mitigate the amount of any costs payable in respect of the Transferring Staff or their dismissal.

The Board shall indemnify Project Co against any costs referred to in Clause 25.2.3 reasonably incurred by Project Co (or by a relevant Service Provider and for which Project Co is responsible) and shall reimburse any costs reasonably and properly incurred by Project Co or the Service Provider in employing any Transferring Staff prior to the expiry of the period referred to in Clause 25.2.2.

Compliance with Legislation and Board Policies

25.3 Project Co shall comply and shall procure that each Service Provider and all persons employed or engaged by a Service Provider in connection with the provision of any Service shall comply at all times with the Law on health and safety at work and on anti-discrimination and equal opportunities.

25.4 Project Co shall procure that each Service Provider takes all reasonable steps to procure that all persons including any employed or engaged by a Service Provider in connection with the provision of any Service shall, so far as applicable, comply with the Board Policies as regards health and safety at work (including the Board Policy regarding smoking) and with those relating to anti-discrimination and equal opportunities (including those relating to harassment). Project Co also shall take and shall procure that every Service Provider shall take all such steps as the Board may reasonably require, which shall include co-operation with action proposed or taken by the Board, to ensure that the Board complies with its duty under Section 3(1) Health and Safety at Work Act 1974 regarding the conduct of the undertaking of the Board.

Project Co Indemnities

25.5 Project Co shall indemnify and keep indemnified in full the Board and, at the Board's request, each and every service provider who has or shall provide any service equivalent to any of the Services against:

25.5.1 claims in respect of all emoluments and all other contractual or statutory payments unpaid by Project Co or a Service Provider to any person entitled to such payments from Project Co or a Service Provider who is or has been employed or engaged by Project Co or any Service Provider on or after the Relevant Service Transfer Date but prior to the date of expiry or termination of this Agreement, and all income tax and pension and national insurance contributions payable thereon; and

25.5.2 insofar as Clause 25.5.1 does not apply, all Direct Losses incurred by the Board as a result of any claim against the Board in respect of any liability to any person who is or has been employed or engaged (whether as a consequence of the Transfer Regulations or of the provisions of this Clause 25) by Project Co or any Service Provider in connection with the provision of any of the Services, where such claim arises as a result of any act or omission of Project Co or the Service Provider occurring after the Relevant Service Transfer Date and before the expiry or termination of this Agreement;

BUT the indemnities in Clauses 25.5.1 and 25.5.2 shall not apply to the extent that the claim arises from a wrongful act or omission of the Board or is in respect of

sums for which the Board is liable pursuant to Clause 25.2.

25.6 Clause 49.3 (*Conduct of Claims*) of this Agreement shall apply where any claim is made in respect of the indemnities given by Project Co under Clause 49.1 (*Project Co Indemnities*).

Position on expiry or earlier termination of this Agreement

25.7 On the expiry or earlier termination of this Agreement, the Board and Project Co agree that it is their intention that the Transfer Regulations shall apply in respect of the provision thereafter of any service equivalent to a Service but the position shall be determined in accordance with the Law at the date of expiry or termination as the case may be and this Clause is without prejudice to such determination.

25.8 Project Co shall not and shall procure that no Service Provider shall make any material change to the terms and conditions of employment of any person employed in the provision of any Service, transfer any person employed in the provision of any Service to another part of its business, or materially increase or decrease the number of such persons:

25.8.1 within the period of twelve (12) months immediately preceding the expiry of this Agreement, or

25.8.2 within the period of twelve (12) months before the termination of this Agreement or, if shorter, during the period of notice of termination

without the Board's consent (which shall not be unreasonably withheld), except if such change is required by Law.

25.9 If the Transfer Regulations do not apply on the expiry or earlier termination of this Agreement, the Board shall ensure that each new provider of a service equivalent to a Service on or after the expiry or earlier termination of this Agreement (including the Board) shall offer employment to the persons employed by Project Co or a Service Provider in the provision of the Service immediately before the expiry or earlier termination of this Agreement and shall indemnify Project Co or a Service Provider for Direct Losses any of them may suffer or incur as a result of its failure to do so, and for any costs, claims or liabilities for redundancy payments (whether statutory or contractual).

25.10 If an offer of employment is made in accordance with Clause 25.9 the employment shall be on the same terms and conditions as applied immediately before the expiry or earlier termination of this Agreement including full continuity of employment, except that the Board or other new service provider may at its absolute discretion not offer such terms and conditions if there has been any change to the terms and conditions of the persons concerned in breach of Clause 25.8.

26. NOT USED

27. SITE AND OFF-SITE SECURITY AND PERSONNEL ISSUES

Access

27.1 The Board shall have the right to refuse admittance to, or order the removal from, the Facilities and/or the Retained Estate of any person employed by (or acting on behalf of) Project Co, any Project Co Party or any sub-contractor whose presence, in the reasonable opinion of the Board, is likely to have a material adverse effect on the provision by the Board of the relevant Board Services at the Facilities and/or the Retained Estate or who is not a fit and proper person to be in the Facilities and/or the Retained Estate.

27.2 Action taken under Clause 27.1 shall forthwith be confirmed in writing by the Board to Project Co and, to avoid doubt, shall not relieve Project Co of any of its obligations under this Agreement.

27.3 If and when so directed in writing by the Board, Project Co shall within twenty (20) Business Days provide a list of the names and addresses of all persons it expects may require admission in connection with this Agreement, to any premises occupied by the Board, specifying the capacities in which those persons are concerned with this Agreement and giving such other particulars as the Board may reasonably require.

27.4 The decision of the Board as to whether any person is to be refused admission shall be final and conclusive.

Board Policies

27.5 Project Co shall, and shall procure that all Project Co Parties shall, comply at all times with the Board Policies.

27.6 The Board shall notify Project Co of any proposed change to the Board Policies as soon as practicable (and, in any event, prior to such change taking effect) and consult with Project Co. Subject to Clause 27.7, such change shall take effect as a Change in accordance with Schedule Part 16 (*Change Protocol*).

27.7 The Board may, at its sole option, notify Project Co that Project Co shall not be obliged to comply with any change to any Board Policy and that Project Co should continue to comply with the relevant Board Policy prior to any change in which case such change shall not take effect as a Change in accordance with Schedule Part 16 (*Change Protocol*) .

Resources and training

27.8 Project Co shall procure that:

27.8.1 there shall at all times be a sufficient number of staff (including all relevant grades of supervisory staff) engaged in the provision of the Services with the requisite level of skill and experience. To avoid doubt, this obligation shall include ensuring that there are sufficient

staff to cover periods of holiday, sickness, other absence, and anticipated and actual peaks in demand for each of the Services; and

27.8.2 all staff receive such training and supervision as is necessary to ensure the proper performance of this Agreement and compliance with all health and safety rules, procedures and requirements.

27.9 Not Used.

Convictions and disciplinary action

27.10 Subject to Clause 27.10A, Project Co (to the extent permitted by Law) shall procure that all potential staff or persons performing any of the Project Operations who may reasonably be expected in the course of their employment or engagement to have access to children, the elderly and/or vulnerable adults:

27.10.1 are questioned concerning their Convictions; and

27.10.2 only in the case of potential staff who may reasonably be expected in the course of their employment to have access to children, the elderly and/or vulnerable adults, are required to complete a Protecting Vulnerable Groups Scheme form.

27.10A The completion of a Protecting Vulnerable Groups Scheme form shall not be applicable to any person engaged by Project Co during the course of the Project Operations (who is not a member of Project Co staff nor ordinarily at the Facilities and/or the Retained Estate) provided that any such person is always accompanied within the Facilities and/or Retained Estate by a member of Project Co's staff who has satisfactorily completed a Protecting Vulnerable Groups Scheme form and who (if found to have any Convictions) has been employed or engaged in the Project Operations with the Board's prior written consent pursuant to Clause 27.11.

27.11 Project Co shall procure that no person who discloses any Convictions, or who is found to have any Convictions following the completion of a Protecting Vulnerable Groups Scheme, in either case of which Project Co or a Service Provider is aware or ought to be aware is employed or engaged in the provision of the Project Operations without the Board's prior written consent (such consent not to be unreasonably withheld or delayed).

27.12 Project Co shall procure that the Board is kept advised at all times of any person employed or engaged by Project Co or any Service Provider in the provision of any of the Project Operations who, subsequent to his/her commencement of such employment or engagement, receives a Conviction of which Project Co or a Service Provider becomes aware or whose previous Convictions become known to Project Co or a Service Provider.

27.13 The Board's Representative (acting reasonably) may instruct Project Co to procure that appropriate disciplinary action is taken against any employee of

Project Co or any Sub-Contractor (in accordance with the terms and conditions of employment of the employee concerned) who misconducts himself or is incompetent or negligent in his duties or whose presence or conduct on the Site and/or Off-Site or at work is otherwise considered by the Board's Representative (acting reasonably) to be undesirable. The Board shall co-operate with any such disciplinary proceedings and shall be advised in writing by Project Co of the outcome.

27.14 Project Co shall procure that there are set up and maintained, by it and by all Service Providers, personnel policies and procedures covering all relevant matters (including discipline, grievance, equal opportunities and health and safety). Project Co shall procure that the terms and the implementation of such policies and procedures comply with Law and Good Industry Practice and that they are published in written form and that copies of them (and any revisions and amendments to them) are forthwith issued to the Board.

Management

27.15 Project Co shall consult with the Board in relation to the selection procedure (which shall stipulate a professional qualification in respect of facilities management or equivalent qualification) for Project Co's Facility Manager and such person shall not be appointed (or replaced) without the prior written consent of the Board (such consent not to be unreasonably withheld or delayed).

27.16 Project Co shall provide, and shall procure that all Service Providers provide, to the Board upon request details of their respective management organisations.

Lists and Records

27.17 Project Co shall procure that the Board's Representative shall at all reasonable times have access to all material details in respect of all employees of Project Co or any Service Provider engaged in the provision of the Services including numbers and categories of staff employed to perform the Services and including in respect of each such employee:

27.17.1 details of qualifications; and

27.17.2 details of training undertaken by the employee.

Health Requirements

27.18 Not Used.

27.19 To the extent permitted by Law, records of all screenings, examinations or treatments referred to in this Clause 27 *(Site and Off-Site Security and Personnel Issues)* shall be held by Project Co on behalf of and as agent for the Board and produced (subject to requirements under the Law) for inspection upon request by the Board's Representative provided that no such inspection shall take place

unless each staff member has given his or her written consent to such inspection.

27.20 Project Co shall (to the extent permitted by Law) procure that the Board shall be informed upon reasonable request by the Board of the outcome of each and every medical screening examination or treatment referred to in Clause 27.18 with reference to the purpose of the screening, examination or treatment concerned and shall receive all such other information referred to in Clause 27.18 subject to requirements under the Law.

27.21 The Board's Representative may (acting reasonably) refuse admittance to or order the removal from the Board's premises of any person employed or engaged in the provision of the Services whose presence poses or is reasonably believed to pose a risk to the health of Board staff, patients or visitors and such action, which shall forthwith be confirmed in writing by the Board, shall not relieve Project Co of any of its obligations under this Agreement.

28. STOCKS CONSUMABLES, MATERIALS AND EQUIPMENT

Standards

28.1 All goods, equipment, consumables and materials which are to be used in the provision of the Services shall be of satisfactory quality.

28.2 Project Co shall ensure that the goods, equipment, consumables and materials used by it or any Sub-Contractor in connection with the provision of any of the Services (each as a distinct and separate obligation) are:

28.2.1 maintained in a safe, serviceable and clean condition in accordance with Good Industry Practice;

28.2.2 of the type specified in the Service Level Specification and/or the Method Statements (where appropriate); and

28.2.3 in compliance with any relevant rules, regulations, codes of practice and/or British or European Standards,

and shall, as soon as practicable after receiving a request from the Board's Representative, supply to the Board's Representative evidence to demonstrate its compliance with this Clause 28.2.

28.3 Project Co shall procure that sufficient stocks of goods, consumables, equipment and materials are held in order to comply with its obligations under this Agreement.

Hazardous substances and materials

28.4 Project Co shall not install, keep or use in or on the Facilities any materials, equipment or apparatus the installation, keeping or use of which is likely to cause (or in fact causes):

28.4.1 material damage to the Facilities;

28.4.2 dust, noise or vibration constituting a nuisance to the owners and/or occupiers of any property adjoining or near to the Facilities; or

28.4.3 the generation, accumulation or migration of any hazardous substance in an unlawful manner whether within or outside the Facilities,

and shall use all reasonable endeavours to ensure (by directions to staff and otherwise) that all materials, equipment or apparatus in or on the Facilities is operated so as to minimise noise and vibration likely to cause annoyance or disturbance and the unlawful generation or migration of any hazardous substance.

28.5 Project Co shall not bring in or on to (or keep or maintain in or on) the Facilities, any hazardous materials or equipment without the prior written consent of the Board and unless Project Co has complied with all relevant Law.

28.6 Without prejudice to the generality of its obligations, Project Co shall:

28.6.1 procure that all hazardous materials and equipment used, by it or by a Sub-Contractor or used on behalf of any of them, or stored, by it or by a Sub-Contractor or stored on behalf of any of them, on the Site and/or Off-Site are kept in accordance with all relevant Law and Good Industry Practice, properly and securely labelled and stored, under appropriate supervision and used only by appropriately trained and competent staff; and

28.6.2 use all practicable and reasonable means to:

(a) prevent or counteract, to the satisfaction of the Board's Representative, the unlawful emission of any such hazardous substance;

(b) avoid the unlawful discharge into any conducting media serving the Facilities, of any hazardous substance;

(c) prevent the unlawful generation, accumulation or migration of any hazardous substance at or from the Facilities, ; and

(d) prevent any environmental claims arising or any circumstances arising likely to result in any environmental claims,

in so far as any such hazardous substance is, or should be, under the control of Project Co pursuant to this Agreement.

28.7 The Board shall:

28.7.1 procure that all hazardous materials and equipment used, by it or by any Board Party or used on behalf of any of them, or stored, by it or by any Board Party or stored on behalf of any of them, on the Site are kept in accordance with all relevant Law and Good Industry Practice, properly and securely labelled and stored, under appropriate supervision and used only by appropriately trained and competent staff; and

28.7.2 use all practicable and reasonable means to:

(a) prevent or counteract the unlawful emission of any such hazardous substance;

(b) avoid the unlawful discharge into any conducting media serving the Facilities of any hazardous substance;

(c) prevent the unlawful generation, accumulation or migration of any hazardous substance at or from the Facilities; and

(d) prevent any environmental claims arising or any circumstances arising likely to result in any environmental claims,

in so far as any such hazardous substance is, or should be, under the control of the Board.

28.8 Project Co shall:

28.8.1 maintain or procure that a Service Provider maintains a COSHH register for the Facilities, which shall be up-to-date at all times;

28.8.2 ensure that a copy of the COSHH register is kept at the Facilities; and

28.8.3 ensure that a further copy of the COSHH register is given to the Board as often as it is changed.

PART 7: DELAY EVENTS, RELIEF EVENTS AND FORCE MAJEURE

29. DELAY EVENTS

29.1 If, at any time, Project Co becomes aware that there will be (or is likely to be) a delay in completion of the Works, Project Co shall forthwith give notice to the Board's Representative to that effect specifying the relevant delay or impediment. In relation to any such delay or impediment if the Board's Representative is satisfied, or it is determined in accordance with Schedule Part 20 (*Dispute Resolution Procedure*), that such delay or impediment has arisen as a result of the occurrence of a Delay Event, then, subject to Clause 29.2, the Board's Representative shall allow Project Co an extension of time equal to the delay or impediment caused by such Delay Event (taking into account reasonably foreseeable consequences of the Delay Event) and shall revise the Completion Date accordingly but to avoid doubt, there shall be no extension to the Project Term as a result of any such delay or impediment.

29.2 If Project Co is (or claims to be) affected by a Delay Event:

29.2.1 it shall (and shall procure that the Project Co Parties shall) take and continue to take all reasonable steps to eliminate or mitigate the consequences of such an event upon the performance of its obligations under this Agreement and, where relevant, resume performance of its obligations affected by the Delay Event as soon as practicable; and

29.2.2 it shall neither be relieved from liability under this Agreement nor entitled to any extension of time for the purpose of Clause 29 (*Delay Events*) to the extent that it is delayed or impeded due to its failure (if any) to comply with its obligations under Clause 29.2.1 above.

29.3 For the purposes of this Agreement, a Delay Event means any of the following to the extent in each case that there will be (or is likely to be) a delay in completion of the Facilities and/or the Retained Estate Handback Infrastructure:

29.3.1 the occurrence of a Qualifying Change in relation to which it has been agreed or determined that the implementation of the Board Change would delay the completion of the Facilities and/or the Retained Estate Handback Infrastructure;

29.3.2 any breach by the Board and/or any Board Party of any of the Board's express obligations under this Agreement to the extent in each case that any such breach is not caused, or contributed to, by Project Co or any Project Co Party;

29.3.3 the execution of works on the Site not forming part of this Agreement by the Board or any contractors employed by the Board;

29.3.4 opening up of the Works pursuant to Clauses 13.3 to 13.7 (inclusive) where such Works are not subsequently found to be defective (unless it is agreed or determined in accordance with Schedule Part 20 (*Dispute Resolution Procedure*) that the opening up of the Works was reasonable in the light of other defects previously discovered by the Board);

29.3.5 Force Majeure;

29.3.6 a Relief Event; or

29.3.7 a Relevant Change in Law referred to in Clause 32.3.1 (*Discriminatory Change in Law*) and Clause 32.3.2 (*Specific Change in Law*); or

29.3.8 Not Used;

29.3.9 an instruction by the Board's Representative to Project Co to stop the Project Operations (or any part or parts thereof) pursuant to Clause 13A.1.1 *(Board's right to stop Project Operations during the Project Term)* where it is subsequently agreed or determined in accordance with Schedule Part 20 *(Dispute Resolution Procedure)* that no Stop Incident(s) has occurred).

29.3.10 an instruction by the Board's Representative to Project Co to the stop the Project Operations (or any part or parts thereof) pursuant to Clause 13A.1.2 *(Board's right to stop Project Operations during the Project Term)*.

29.3.11 an instruction by the Board's Representative to Project Co to stop the Project Operations (or any part or parts thereof) pursuant to Clause 13A.1.3 *(Board's right to stop Project Operations during the Project Term).*

29.4 Without prejudice to the generality of Clause 29 (*Delay Events*), Project Co shall give notice in writing to the Board's Representative as soon as it (or the Contractor) can reasonably foresee a Delay Event occurring or, if the same is not reasonably foreseeable, as soon as it (or the Contractor) shall become aware of a Delay Event. Project Co shall within ten (10) Business Days after such notification, give further written details to the Board's Representative which shall include:

29.4.1 a statement of which Delay Event the claim is based upon;

29.4.2 details of the circumstances from which the Delay Event arises;

29.4.3 details of the contemporary records which Project Co will maintain to substantiate its claim for extra time;

29.4.4 details of the consequences (whether direct or indirect, financial or non-financial) which such Delay Event may have upon completion of the Facilities and the Retained Estate Handback Infrastructure; and

29.4.5 details of any measures which Project Co proposes to adopt to mitigate the consequences of such Delay Event.

29.5 As soon as possible but in any event within (five (5) Business Days of Project Co (or the Contractor) receiving, or becoming aware of, any supplemental information which may further substantiate or support Project Co's claim then, provided that the Completion Date has not otherwise already been revised pursuant to Clause 29.7, Project Co shall submit further particulars based on such information to the Board's Representative.

29.6 The Board's Representative shall, after receipt of written details under Clause 29.4, or of further particulars under Clause 29.5, be entitled by notice in writing to require Project Co to provide such further supporting particulars as he may reasonably consider necessary. Project Co shall afford the Board's Representative reasonable facilities for investigating the validity of Project Co's claim including, without limitation, onsite inspection.

29.7 Subject to the provisions of this Clause, the Board's Representative shall revise the Completion Date in accordance with Clause 29.1 (*Delay Events*) as soon as reasonably practicable and in any event within ten (10) Business Days of the later of:

29.7.1 the date of receipt by the Board's Representative of Project Co's notice given in accordance with Clause 29.4 and the date of receipt of any further particulars (if such are required under Clause 29.6), whichever is the later; and

29.7.2 the date of receipt by the Board's Representative of any supplemental information supplied by Project Co in accordance with Clause 29.5 and the date of receipt of any further particulars (if such are required under Clause 29.6), whichever is the later.

If Project Co has failed to comply with the requirements as to the giving of notice under Clause 29.4, or has failed to maintain records or afford facilities for inspection to the Board's Representative, then Project Co shall not be entitled to any extension of time (and the Completion Date shall not be revised) in respect of any period of delay by Project Co in giving notice or providing information under Clause 29.4 and/or to the extent that its failure to maintain records or afford facilities for inspection to the Board's Representative has prevented the Board's Representative from assessing the consequences of the Delay Event.

29.8 If:

29.8.1 the Board's Representative declines to fix a revised Completion Date;

or

29.8.2 Project Co considers that a different Completion Date should be fixed; or

29.8.3 there is a disagreement as to whether a Delay Event has occurred,

then Project Co shall be entitled to refer the matter for determination in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

Compensation

29.9 If the Delay Event is a Compensation Event Project Co's sole right to compensation shall be as provided for in Clauses 29.11 to 29.13 inclusive. To avoid doubt, no other Delay Event shall entitle Project Co to receive any compensation save as otherwise expressly provided in:

29.9.1 Schedule Part 16 (*Change Protocol*) in the case of a Delay Event referred to in Clause 29.3.1 (subject always to the provisions of Clause 32 (*Changes in Law*)); or

29.9.2 Clause 32 (*Changes in Law*) in the case of a Delay Event referred to in Clause 29.3.7.

29.10 For the purposes of Clause 29.9, a Compensation Event means:

29.10.1 any Delay Event referred to in Clause 29.3.2, Clause 29.3.3 or Clauses 29.3.4, 29.3.9, 29.3.10 and 29.3.11 for which, in each case, it has been agreed or determined pursuant to this Clause 29 (*Delay Events*) that Project Co is entitled to an extension of time; or

29.10.2 in the period prior to the Actual Completion Date, in circumstances where there is no delay in completion of the Facilities and the Retained Estate Handback Infrastructure any breach by the Board and/or any Board Party of any of the Board's express obligations under this Agreement to the extent that such breach is not caused, or contributed to, by Project Co or any Project Co Party.

29.10.3 Not Used.

29.11 Subject to Clause 29.12, if it is agreed, or determined, that there has been a Compensation Event, and Project Co has incurred loss (including loss of revenue) and/or expense as a direct result of such Compensation Event, Project Co shall be entitled to such compensation as would place Project Co in no better or worse position than it would have been in had the relevant Compensation Event not occurred. Project Co shall promptly provide the Board's Representative with any additional information he may require in order to determine the amount of such

compensation.

29.12 Project Co shall take all reasonable steps so as to minimise the loss and/or expense referred to in Clause 29.11 in relation to any Compensation Event and any compensation payable shall:

29.12.1 exclude any amounts incurred or to be incurred as a result of any failure of Project Co (or any Project Co Party) to comply with this Clause 29.12; and

29.12.2 be reduced by any amount which Project Co has recovered or will recover under any insurance policy (or would have recovered if it had complied with the requirements of this Agreement or of any policy of insurance required under this Agreement) which amount, to avoid doubt, shall not include any excess or deductibles or any amount over the maximum amount insured applicable to any such insurance policy.

29.13 The amount of any compensation due to Project Co under Clause 29.11 shall be agreed between the parties or, failing agreement, determined pursuant to Schedule Part 20 (*Dispute Resolution Procedure*) and such compensation shall be payable:

29.13.1 in respect of compensation for a Compensation Event to the extent resulting in Capital Expenditure being incurred the Board shall compensate Project Co for the actual Capital Expenditure incurred by Project Co within twenty (20) Business Days of its receipt of a written demand accompanied by a valid VAT invoice for the same by Project Co supported by all relevant information; and

29.13.2 in all other cases in accordance with Section 6 (*Changing the Financial Model*) of Schedule Part 16 (*Change Protocol*) as if a Relevant Event had taken place.

30. RELIEF EVENTS

30.1 For the purposes of this Agreement, subject to Clause 30.4, Relief Events mean any of the following events:

30.1.1 fire, explosion, lightning, storm, tempest, flood, bursting or overflowing of water tanks, apparatus or pipes, ionising radiation (to the extent it does not constitute Force Majeure), earthquake, riot or civil commotion;

30.1.2 failure by any statutory undertaker, utility company, local authority or other like body to carry out works or provide services;

30.1.3 accidental loss or damage to the Works and/or Facilities or any roads servicing the same;

30.1.4 without prejudice to any obligation of Project Co to provide stand-by power facilities in accordance with the Board's Construction Requirements, the Service Level Specification, failure or shortage of power, fuel or transport;

30.1.5 blockade or embargo falling short of Force Majeure;

30.1.6 the discovery of fossils, antiquities and human remains requiring action in accordance with Clause 19 (*Fossils and Antiquities*); or

30.1.7 official or unofficial strike, lockout, go slow or other dispute in each case generally affecting the construction, building maintenance or facilities management industry (or a significant sector of that industry),

provided in each case that such event does not arise (directly or indirectly) as a result of any wilful act or default of the party claiming relief and/or (i) in the case of Project Co claiming relief, any Project Co Party and (ii) in the case of the Board claiming relief, any Board Party.

30.2 Subject to Clauses 30.3 and 30.4, no right of termination shall arise under this Agreement by reason of any failure by a party to perform any of its obligations under this Agreement to the extent that such failure to perform occurs because of the occurrence of a Relief Event (and, to avoid doubt, and without prejudice to Clause 30.9, unless expressly stated to the contrary in this Agreement, it is acknowledged that all other rights and obligations of the parties under this Agreement remain unaffected by the occurrence of a Relief Event).

30.3 Without prejudice to Project Co's rights under Clause 29 (Delay Events), Project Co shall only be relieved of its obligations under Clauses 12 (*The Design, Construction and Commissioning Process*), 13 (*Right of Access of Board's Representative*), 14(*Programme and Dates for Completion*), 17 (*Pre-Completion Commissioning and Completion*) and 29 (*Delay Events*) by Delay Events in accordance with Clause 29 (*Delay Events*).

Mitigation

30.4 Where a party is (or claims to be) affected by a Relief Event:

30.4.1 it shall take all reasonable steps to mitigate the consequences of such an event upon the performance of its obligations under this Agreement, resume performance of its obligations affected by the Relief Event as soon as practicable and use all reasonable endeavours to remedy its failure to perform; and

30.4.2 it shall not be entitled to rely upon the relief afforded to it pursuant to Clause 30.2 of this Agreement to the extent that it is not able to perform, or has not in fact performed, its obligations under this Agreement due to its failure (if any) to comply with its obligations under Clause 30.4.1 above.

30.5 The party claiming relief shall serve written notice on the other party within five (5) Business Days of it becoming aware of the relevant Relief Event. Such initial notice shall give sufficient details to identify the particular event claimed to be a Relief Event.

30.6 A subsequent written notice shall be served by the party claiming relief on the other party within a further five (5) Business Days of the notice referred to in Clause 30.5 which shall contain such relevant information relating to the failure to perform (or delay in performing) as is available, including (without limitation) the effect of the Relief Event on the ability of the party to perform, the action being taken in accordance with Clause 30.4, the date of the occurrence of the Relief Event and an estimate of the period of time required to overcome it (and/or its effects).

30.7 The party claiming relief shall notify the other as soon as the consequences of the Relief Event have ceased and of when performance of its affected obligations can be resumed.

30.8 If, following the issue of any notice referred to in Clause 30.6, the party claiming relief receives or becomes aware of any further information relating to the Relief Event (and/or any failure to perform), it shall submit such further information to the other party as soon as reasonably possible.

30.9 To avoid doubt, the occurrence of a Relief Event shall not entitle Project Co to any compensation.

31. FORCE MAJEURE

31.1 For the purposes of this Agreement, Force Majeure means any of the following events or circumstances:

31.1.1 war, civil war, armed conflict or terrorism; or

31.1.12 nuclear contamination unless in any case Project Co and/or any Project Co Party is the source or the cause of the contamination; or

31.1.3 chemical or biological contamination of the Works and/or the Facilities and/or the Site from any of the events referred to in Clause 31.1.1 above; or

31.1.4 pressure waves caused by devices travelling at supersonic speeds,

which directly causes either party to be unable to comply with all or a material part of its obligations under this Agreement.

31.2 Subject to Clauses 31.3 and 31.4 the party claiming relief shall be relieved from liability under this Agreement to the extent that by reason of the Force Majeure it is

not able to perform its obligations under this Agreement. For the avoidance of doubt (but without prejudice to Clause 41(*Termination Resulting from Force Majeure*)) the Board shall not be entitled to terminate this Agreement for a Project Co Event of Default if such Project Co Event of Default arises from a Force Majeure Event.

31.3 Where a party is (or claims to be) affected by an event of Force Majeure:

31.3.1 it shall take all reasonable steps to mitigate the consequences of such an event upon the performance of its obligations under this Agreement, resume performance of its obligations affected by the event of Force Majeure as soon as practicable and use all reasonable endeavours to remedy its failure to perform; and

31.3.2 it shall not be relieved from liability under this Agreement to the extent that it is not able to perform, or has not in fact performed, its obligations under this Agreement due to its failure (if any) to comply with its obligations under Clause 31.3.1.

31.4 Without prejudice to Project Co's rights under Clause 29(*Delay Events*), Project Co shall only be relieved from its obligations under Clauses 12 (*The Design, Construction and Commissioning Process*), 13 (*Right of Access of Board's Representative*), 14 (*Programme and Dates for Completion*) and 29 (*Delay Events*) by Delay Events in accordance with Clause 29 (*Delay Events*).

31.5 The party claiming relief shall serve written notice on the other party within five (5) Business Days of it becoming aware of the relevant event of Force Majeure. Such initial notice shall give sufficient details to identify the particular event claimed to be an event of Force Majeure.

31.6 A subsequent written notice shall be served by the party claiming relief on the other party within a further five (5) Business Days which shall contain such relevant information relating to the failure to perform (or delay in performing) as is available, including (without limitation) the effect of the event of Force Majeure on the ability of the party to perform, the action being taken in accordance with Clause 31.3, the date of the occurrence of the event of Force Majeure and an estimate of the period of time required to overcome it (and/or its effects).

31.7 The party claiming relief shall notify the other as soon as the consequences of the event of Force Majeure have ceased and of when performance of its affected obligations can be resumed.

31.8 If, following the issue of any notice referred to in Clause 31.6, the party claiming relief receives or becomes aware of any further information relating to the event of Force Majeure (and/or any failure to perform), it shall submit such further information to the other party as soon as reasonably possible.

31.9 Nothing in this Clause 31 shall affect the Board’s entitlement to make Deductions in the period during which any event of Force Majeure is subsisting.

31.10 The parties shall endeavour to agree any modifications to this Agreement which may be equitable having regard to the nature of an event or events of Force Majeure. Schedule Part 20 (*Dispute Resolution Procedure*) shall not apply to a failure of the Board and Project Co to reach agreement pursuant to this Clause 31.10.

PART 8: CHANGES IN LAW & CHANGES

32. CHANGES IN LAW

General

32.1 Project Co shall take all steps necessary to ensure that the Project Operations are performed in accordance with the terms of this Agreement (including, without limitation, Clause 5.2.1) following any Change in Law.

Relevant Changes in Law

32.2 Subject to Clause 32.4.3(e) and Clause 32.4.3(f) and on the occurrence of any Relevant Change in Law, the parties shall be entitled to seek adjustments to the Annual Service Payments to compensate for any increase or decrease (as the case may be) in the net cost to Project Co of performing the Project Operations. Such adjustments (if any) will be calculated in accordance with and subject to Clause 32.4.

32.3 Relevant Change in Law means any of the following:

32.3.1 the occurrence of any Discriminatory Change in Law having an impact on the cost of performance of the Project Operations;

32.3.2 the occurrence of any Specific Change in Law having an impact on the cost of performance of the Project Operations; or

32.3.3 the occurrence, after the relevant date, of any Change in Law which requires any work of alteration, addition, demolition or extension or variation in the quality or function of the Facilities which is not Maintenance Work or Lifecycle Replacement or work which Project Co would otherwise be required to undertake to comply with its obligations under this Agreement. For the purposes of this Clause 32.3.3, the relevant date shall be the later to occur of the Completion Date and the Actual Completion Date, save where the Actual Completion Date is delayed by a Compensation Event, a Delay Event referred to in Clause 29.3.1 or by a Delay Event referred to in Clause 29.3.7, in which case the relevant date shall be the later to occur of the Completion Date and the date on which the Works would have been completed in accordance with this Agreement had the relevant Compensation Event or Delay Event not occurred,

provided that:

(a) such Change in Law (or, in the case of a Specific Change in Law, change to a NHS Requirement, as the case may be) was not reasonably foreseeable at the date of this Agreement by an experienced contractor performing operations similar to the relevant the Project Operations, on

the basis of draft bills published in Government green or white papers or other Government departmental consultation papers, bills, draft statutory instruments or draft instruments or proposals published in the Official Journal of the European Union, in each case published:

(i) prior to the date of this Agreement; and

(ii) in substantially the same form or having substantially the same effect as the Relevant Change in Law; and

(b) a Change in Law relating to the application for, coming into effect, terms, implementation, repeal, revocation or otherwise of any Planning Permission shall not constitute a Relevant Change in Law.

32.4 On the occurrence of a Relevant Change in Law:

32.4.1 either party may give notice to the other of the occurrence of the Relevant Change in Law;

32.4.2 the parties shall meet within fifteen (15) Business Days of the notice referred to in Clause 32.4.1 to consult and seek to agree the effect of the Relevant Change in Law. If the parties, within ten (10) Business Days of this meeting, have not agreed the occurrence or the effect of the Relevant Change in Law, either party may refer the question of whether a Relevant Change in Law has occurred or the effect of any Relevant Change in Law for resolution in accordance with Schedule Part 20 *(Dispute Resolution Procedure)*; and

32.4.3 within ten (10) Business Days of the agreement or determination referred to in Clause 32.4.2 above, the Board's Representative shall issue an Board Change Notice and the relevant provisions of Schedule Part 16 (*Change Protocol*) shall apply except that:

(a) Project Co may give notice to the Board's Representative that it objects to such an Board Change Notice only on the grounds that the implementation of the Change would not give effect to or comply with the Relevant Change in Law;

(b) the Board shall (i) agree the implementation of the Low Value Change, or (ii) confirm the estimate for the Medium Value Change, or (iii) approve the High Value Change Stage 2 Submission, (as appropriate) in respect of the Change in accordance with the relevant provisions of Schedule Part 16 (*Change Protocol*);

(c) the provisions of Clause 11 (*Consents and Planning*

Approval) shall apply;

(d) the Board shall not be entitled to withdraw any Board Change Notice or its agreement as to the implementation of the Low Value Change, confirmation of an estimate for the Medium Value Change or approval of a High Value Change Stage 2 Submission (as appropriate), issued in accordance with this Clause 32.4;

(e) Project Co shall, without prejudice to its general obligation to comply with the terms of this Agreement:

(i) use all reasonable endeavours to mitigate the adverse effects of any Relevant Change in Law and take all reasonable steps to minimise any increase in costs arising from such Relevant Change in Law; and

(ii) use all reasonable endeavours to take advantage of any positive or beneficial effects of any Relevant Change in Law and take all reasonable steps to maximise any reduction in costs arising from such Relevant Change in Law; and

(f) any compensation payable, or reduction to the Annual Service Payments, shall be calculated in accordance with the relevant provisions of Schedule Part 16 (*Change Protocol*) provided that:

(i) the amount of any compensation payable; or

(ii) the amount by which the Annual Service Payment is to be reduced,

shall not take into account any amounts incurred or to be incurred as a result of Project Co's failure to comply with Clause 32.4.3(e) above.

General Change in Law

32.5 Either party may give notice to the other of the need for a Change which is necessary in order to enable Project Co to comply with any Change in Law which is not a Relevant Change in Law, in which event:

32.5.1 the parties shall meet within fifteen (15) Business Days to consult and seek to agree the effect of the Change in Law and any Change required as a consequence. If the parties, within ten (10) Business Days of this meeting, have not agreed the occurrence or the effect of

the relevant Change in Law, either party may refer the question of whether a Change in Law has occurred or the effect of the Change in Law for resolution in accordance with Schedule Part 20 (*Dispute Resolution Procedure*); and

32.5.2 within twenty (20) Business Days of the agreement or determination referred to in Clause 32.5.1 above the Board's Representative shall, if it is agreed or determined that a Change is required in order to comply with the Change in Law, issue an Board Change Notice and the relevant provisions of Schedule Part 16 (*Change Protocol*) shall apply except that:

(a) Project Co may give notice to the Board's Representative that it objects to such an Board Change Notice only on the grounds that the implementation of the Change would not give effect to or comply with the Change in Law;

(b) the Board shall (i) agree the implementation of the Low Value Change; or (ii) confirm the estimate for the Medium Value Change; or (iii) approve the High Value Change Stage 2 Submission, (as appropriate) in respect of the Change in accordance with the relevant provisions of Schedule Part 16 (*Change Protocol*);

(c) the provisions of Clause 11 (*Consents and Planning Approval*) shall apply;

(d) the Board shall not be entitled to withdraw any Board Change Notice or its (i) agreement as to the implementation of the Low Value Change; or (ii) confirmation of an estimate for the Medium Value Change; or (iii) approval of a High Value Change Stage 2 Submission (as appropriate), issued in accordance with this Clause 32.5 (*General Changes in Law*); and

(e) Project Co shall not be entitled to any payment or other compensation or relief from any performance of its obligations under this Agreement in respect of such Change in Law or associated Change (or the consequences of either).

33. CHANGE PROTOCOL

The provisions of Schedule Part 16 (*Change Protocol*) shall have effect in respect of Changes except as otherwise expressly provided in this Agreement.

PART 9: FINANCIAL

34A BOARD CAPITAL CONTRIBUTIONS[3]

34. PAYMENT

Service Payments

34.1 Project Co shall not be entitled to receive any Monthly Service Payments until the Payment Commencement Date. Subject to the provisions of this Agreement, the Board shall pay Project Co the Monthly Service Payments in respect of each Contract Month following the Payment Commencement Date in accordance with the provisions of Schedule Part 14 (*Payment Mechanism*).

Invoicing and payment arrangements

34.2 The provisions of this Clause 34.2 apply to the issue of invoices in respect of the Monthly Service Payments by Project Co under this Agreement:

34.2.1 On or before the first day of each Contract Month Project Co shall submit to the Board an invoice ("**Monthly Invoice**") aggregating the following:

(a) the Monthly Service Payment for that Contract Month, calculated in accordance with Section 2 (*Calculation of Service Payments*) of Schedule Part 14 (*Payment Mechanism*);

(b) adjustments to reflect previous over-payments and/or under-payments (each adjusted stated separately);

(c) any other amounts due by one party to the other (and where owed by Project Co showing as a negative figure);

(d) any VAT payable in respect of the above amounts;

(e) Not Used;

(f) as a negative figure, in respect of the Monthly Invoice issued during the final Contract Month only, an amount equivalent to twice the monthly average of the Deductions incurred in the previous six Contract Months ("**Estimated Deductions**"),

[3] To be discussed with Bidders during Dialogue.

and setting out the date of the invoice, the due date for payment of the invoice and the account to which payment is to be made together with supporting information that clearly sets out the derivation and calculation of amounts referred to in the Monthly Invoice.

34.2.2 Subject to Clauses 34.2.3 and 34.3 and the submission of the supporting information referred to in Clause 34.2.1, where a Monthly Invoice shows a net amount owed by the Board to Project Co, the Board shall pay the amount of the Monthly Invoice within ten (10) Business Days of its submission and delivery of a valid VAT invoice in respect thereof. Where a Monthly Invoice shows a net amount owed by Project Co to the Board, Project Co shall pay that amount to the Board within ten (10) Business Days of the Monthly Invoice or, at the option of the Board, carry forward that amount to the next Monthly Invoice to reduce amounts which would otherwise be owed by the Board to Project Co.

34.2.3 Within 10 Business Days of the Expiry Date, Project Co shall provide to the Board a Performance Monitoring Report in respect of the final two Contract Months. If the Deductions incurred in the final two Contract Months exceed the Estimated Deductions, Project Co shall pay to the Board an amount equal to the excess within ten (10) Business Days of receipt of an invoice therefor. If the Estimated Deductions exceed the Deductions incurred in the final two Contract Months the Board shall pay to Project Co an amount equal to the excess within ten (10) Business Days of receipt of an invoice therefor.

34.2.4 On or before the tenth day of each Contract Month Project Co shall submit to the Board a Monthly Service Report in respect of the immediately preceding Contract Month. The Monthly Service Report shall set out, in respect of the immediately preceding Contract Month:

(a) details of each and the aggregate amount of all Deductions incurred in relation to Performance Failures;

(b) details of each and the aggregate amount of all Deductions incurred in relation to Availability Failures;

(c) other information detailed in Schedule Part 12 (*Service Requirements*).

34.2.5 The parties shall endeavour to agree the contents of a Monthly Service Report within ten (10) Business Days of its submission in accordance with Clause 34.2.4, failing which either party may refer the matter to the Dispute Resolution Procedure.

Manner of payment

34.3 All payments under this Agreement shall be made in pounds sterling by electronic transfer of funds for value on the day in question to the bank account of the

recipient (located in the United Kingdom) specified in the relevant invoice, quoting the invoice number against which payment is made.

Disputes

34.4 If the Board (acting in good faith) disputes all or any part of the Monthly Service Payments calculated in accordance with Clause 34.2 (*Invoicing and Payment Arrangements*), the undisputed amount of the Monthly Service Payment shall be paid by the Board in accordance with Clause 34.2 (*Invoicing and Payment Arrangements*) and the provisions of this Clause 34.4 shall apply. The parties shall use all reasonable endeavours to resolve the dispute in question within ten (10) Business Days of the dispute arising. If they fail so to resolve it, either party may refer the matter to the Dispute Resolution Procedure. Following resolution of the dispute, any amount agreed or determined to have been payable shall be paid forthwith by the Board to Project Co, together with interest on such amount calculated in accordance with Clause 34.5 (*Late Payments*).

Late Payments

34.5 Each party shall be entitled, without prejudice to any other right or remedy, to receive interest on any payment not duly made pursuant to the terms of this Agreement on the due date calculated from day to day at a rate per annum equal to the Default Interest Rate and including from the day after the date on which payment was due up to and including the date of payment.

Set-Off

34.6 Subject to Clause 46.12, whenever any sum of money shall be agreed, or determined, as due and payable by Project Co to the Board, such sum may at the Board's discretion be deducted from or applied to reduce the amount of any sum then due, or which at any time afterwards may become due, to Project Co from the Board under this Agreement provided that the Board has given Project Co not less than five (5) Business Days' notice of its intention to deduct or apply such sum.

34.7 Whenever any sum of money shall be agreed, or determined, as due and payable by the Board to Project Co, such sum may at Project Co's discretion be deducted from or applied to reduce the amount of any sum then due, or which at any time afterwards may become due, from Project Co to the Board under this Agreement provided that Project Co has given the Board not less than five (5) Business Days' notice of its intention to deduct or apply such sum.

35. VAT AND CONSTRUCTION INDUSTRY TAX DEDUCTION SCHEME

VAT

35.1 All amounts stated to be payable by either party under this Agreement shall be exclusive of any VAT properly chargeable on any amount.

35.2 Each party shall pay to the other party any VAT properly chargeable on any supply made to it under this Agreement provided that it shall first have received from the other party a valid tax invoice in respect of that supply which complies with the requirements of Part III VAT Regulations 1995.

35.3 If either party (referred to in this Clause as the "**First Party**") shall consider that any VAT which the other party (referred to in this Clause as the "**Second Party**") claims to be properly chargeable to the First Party in connection with this Agreement is not in fact properly so chargeable, the First Party shall be entitled to require the Second Party to obtain a ruling from the Commissioners for Customs and Excise (or, if relevant, such other body as is charged at the time with the collection and management of VAT) (referred to in this Clause as the "**Commissioners**") as to the VAT (if any) properly so chargeable. The Second Party shall forthwith request the Commissioners for such a ruling.

35.4 The following further provisions shall apply in respect of the application for a ruling in accordance with Clause 35.3:

35.4.1 prior to submitting its request for such a ruling and any further communication to the Commissioners in connection with the obtaining of the ruling, the Second Party shall first obtain the agreement of the First Party to the contents of such request and any such further communication, such agreement not to be unreasonably withheld or delayed;

35.4.2 the Second Party shall provide to the First Party copies of all communications received from the Commissioners in connection with the application for a ruling as soon as practicable after receipt; and

35.4.3 the Second Party shall use all reasonable endeavours (including without limitation the provision of such additional information as the Commissioners may require) to obtain such a ruling as soon as reasonably practicable following the initial request.

35.5 If a ruling is required by the First Party under Clause 35.3, the First Party shall not be obliged to pay the VAT so claimed by the Second Party unless and until a ruling is received from the Commissioners which states that a sum of VAT (the "**VAT Sum**") is properly so chargeable or the Commissioners state that they are not prepared to give any ruling on the matter. In this case, then subject to Clauses 35.6 and 35.7 and provided that the First Party shall first have received a valid tax invoice which complies with the requirements of Part III VAT Regulations 1995 and which states the VAT Sum to be the amount of VAT chargeable to the First Party, the First Party shall pay the VAT Sum (and any interest or penalties attributable to the VAT Sum) to the Second Party.

35.6 If the First Party disagrees with any ruling obtained pursuant to Clause 35.3 by the Second Party from the Commissioners, then the Second Party (provided that it is indemnified to its reasonable satisfaction against all costs and expenses including interest and penalties which it may incur in relation thereto) shall take such action and give such information and assistance to the First Party as the First Party may require to challenge such ruling or otherwise to resist or avoid the imposition of VAT on the relevant supply.

35.7 The following further provisions shall apply if the First Party shall exercise its rights under Clause 35.6:

35.7.1 the action which the First Party shall be entitled to require the Second Party to take shall include (without limitation) contesting any assessment to VAT or other relevant determination of the Commissioners before any VAT tribunal or court of competent jurisdiction and appealing any judgement or decision of any such tribunal or court;

35.7.2 if the Second Party shall be required to pay to or deposit with the Commissioners a sum equal to the VAT assessed as a condition precedent to its pursuing any appeal, the First Party shall, at its election, either pay such sum to the Commissioners on behalf of the Second Party or on receipt of proof in a form reasonably satisfactory to the First Party that the Second Party has paid such sum to or deposited such sum with the Commissioners the First Party shall pay such sum to the Second Party;

35.7.3 save as specifically provided in Clause 35.5, the First Party shall not be obliged to pay to the Second Party any sum in respect of the VAT in dispute to the Second Party or in respect of VAT on any further supplies made by the Second Party to the First Party which are of the same type and raise the same issues as the supplies which are the subject of the relevant dispute unless and until the final outcome of the relevant dispute is that it is either determined or agreed that VAT is properly chargeable on the relevant supply or supplies; and

35.7.4 the Second Party shall account to the First Party for any costs awarded to the Second Party on any appeal, for any sum paid to or deposited with the Commissioners in accordance with Clause 35.7.2 which is repayable to the Second Party and for any interest to which the Second Party is entitled in respect of such sums.

Changes in recoverability of VAT

35.8 Subject to Clause 35.9, if, following a Change in Law, Project Co becomes unable to recover VAT attributable to supplies to be made to the Board by Project Co pursuant to this Agreement, the Board shall ensure that Project Co is left in no better and no worse position than it would have been had such Change in Law not occurred (including but not limited to making such amendments to this Agreement as Project Co and the Board shall agree acting reasonably), provided that Project Co shall use all reasonable endeavours to mitigate the adverse effects of any such Change in Law.

35.9 The provisions of Clause 35.9 shall apply only if (and to the extent that) the Change in Law was not reasonably foreseeable at the date of this Agreement by an experienced contractor performing operations similar to the relevant Works on the basis of draft bills published in Government green or white papers or other Government departmental consultation papers, bills, draft statutory instruments or draft instruments or proposals published in the Official Journal of the European Union, in each case published:

35.9.1 prior to the date of this Agreement; and

35.9.2 in substantially the same form as the Change in Law.

Construction Industry Tax Deduction Scheme

35.10 This Clause 35.10 (*Construction Industry Tax Deduction Scheme*) relates to the Construction Industry Tax Deduction Scheme:

35.10.1 In this Clause 35.10(*Construction Industry Tax Deduction Scheme*) (but not otherwise):

(a) "**the Act**" means the Finance Act 2004;

(b) "**the Regulations**" means the Income Tax (Construction Industry Scheme) Regulations 2005 (SI 2005/2045);

(c) "**the Legislation**" means Chapter 3 Part 3 of the Act and the Regulations, taken together;

(d) "**Contractor**" means a person who is a contractor for the purposes of Chapter 3 Part 3 of the Act; and

(e) "**sub-contractor**" means a person who is a sub-contractor for the purposes of Chapter 3 Part 3 of the Act.

35.10.2 Each of the Board and Project Co shall comply with the Legislation.

35.10.3 f any payment due from the Board to Project Co under this Agreement is a contract payment under section 60(1) of the Act, then the Board, as Contractor, shall (not later than fifteen (15) Business days before the first such payment is due to be made) verify, in accordance with paragraph 6 of the Regulations, whether the sub-contractor is registered for gross payment or for payment under deduction or is not registered under Chapter 3 Part 3 of the Act.

35.10.4 If any payment due from the Board to Project Co under this Agreement is a contract payment under section 60(1) of the Act, then:

(a) if Project Co is registered for gross payment under section 63(2) of the Act, the Board shall make a payment to Project Co without any deduction;

(b) if Project Co is not registered for gross payments under section 63(2) of the Act, the Board shall make a payment to

Project Co, subject to the deduction of the relevant percentage in accordance with section 61(1) of the Act, and thereupon Clause 35.10.6 below shall apply.

35.10.5 If any dispute arises between the Board and Project Co as to whether any payment due by the Board to Project Co under this Agreement is or is not a contract payment by virtue of the exemption in Regulation 23 of the Regulations, the parties will jointly apply to HM Revenue and Customs for a written ruling and until such ruling is received it shall be assumed that such payment is a contract payment and the provisions of Clause 35.10 (*Construction Industry Tax Deduction Scheme*) shall apply accordingly.

35.10.6 The Board shall be entitled to make a deduction at the rate specified in section 61(1) of the Act or at such other rate as may be in force from time to time from the whole of any payment to Project Co (and not just that part of such payment which does not represent the direct cost to Project Co or any other person of materials used or to be used in carrying out the construction operations to which the relevant payment relates) unless prior to making such payment the Board shall have received written confirmation from HM Revenue and Customs (obtained by and at the expense of Project Co) in a form which is reasonably satisfactory to the Board directing the Board to make the deduction against only a specified amount or proportion of any such payment to Project Co.

35.10.7 Where any error or omission has occurred in calculating or making any payment under this Clause 35.10 (*Construction Industry Tax Deduction Scheme*) then:

(a) in the case of an over deduction, the Board shall correct that error by repayment of the sum over deducted to Project Co; and

(b) in the case of an under deduction, Project Co shall correct that error or omission by repayment of the sum under deducted to the Board.

35.10.8 The Board shall send promptly to H M Revenue & Customs any returns required by the Legislation, and shall provide to Project Co a payment statement (where appropriate) and/or such other information as may be required by the Legislation in relation to any contract payment.

35.10.9 If compliance with this Clause 35.10 involves the Board or Project Co in not complying with any other of the terms of this Agreement, then the provisions of this Clause shall prevail.

36. PAYMENT OF SURPLUSES AND COMPLIANCE WITH NPD REQUIREMENTS

Project Co shall:

36.1 subject to the provisos, obligations and restrictions referred to in Article [3.1.2] of the Articles of Association and the right to postpone payments referred to in Article [3.2] of the Articles of Association, pay to the Board (or to such other party as the Board may, in its absolute discretion direct), within 30 Business Days of each Surplus Payment Date, the Surplus available as at the relevant Surplus Payment Date as a rebate of the Monthly Service Payments for the Contract Year most recently ended prior to the relevant Surplus Payment Date; and

36.2 comply with the NPD Requirements at all times throughout the Project Term.

37. FINANCIAL MODEL

37.1 Unless otherwise agreed between the parties, any amendments to the Financial Model shall reflect, be consistent with and be made only in accordance with the provisions of this Agreement, and shall in all cases be subject to the prior written approval of the Board (such approval not to be unreasonably withheld or delayed). In the event that the parties fail to agree any proposed amendments to the Financial Model, the matter shall be referred for resolution in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

37.2 Following any amendment of the Financial Model in accordance with this Agreement, Project Co shall promptly deliver a copy of the revised Financial Model to the Board in the same form as the original form (or such other form as may be agreed by the parties from time to time).

38. RECORDS AND OPEN BOOK ACCOUNTING

Records and Reports

The provisions of Schedule Part 19 (*Record Provisions*) shall apply to the keeping of records and the making of reports.

PART 10: TERMINATION

39. BOARD EVENTS OF DEFAULT

39.1 For the purposes of this Agreement, Board Events of Default means any of the following events or circumstances:

39.1.1 the Board is in material breach of its obligations under Clause 9 (*Nature of Land Interests*) (other than as a consequence of a breach by Project Co of its obligations under this Agreement) and such breach materially adversely affects the ability of Project Co to perform its material obligations under this Agreement for a continuous period of not less than thirty (30) Business Days; or

30.1.2 the Board fails to pay any sum or sums due to Project Co under this Agreement (which sums are not in dispute) which, either singly or in aggregate, exceed(s) the amount of the Monthly Service Payment from time to time and such failure continues for thirty (30) Business Days from receipt by the Board of a notice of non payment from Project Co;

39.1.3 the Board is in breach of its obligations under Clause 57.4; or

39.1.4 an Adverse Law or a Proposal for an Adverse Law being made.

Project Co's options

39.2 On the occurrence of an Board Event of Default, or within a reasonable time after Project Co becomes aware of the same, and while the same is still subsisting, Project Co may, at its option:

39.2.1 in respect of execution of the Works, suspend performance by it of its obligations under this Agreement until such time as the Board shall have demonstrated to the reasonable satisfaction of Project Co that it is capable of performing, and will perform, its obligations under this Agreement; or

39.2.2 serve notice on the Board (or such other party as may be notified in advance in writing by the Board to Project Co) of the occurrence (and specifying details) of such Board Event of Default. If the relevant matter or circumstance has not been rectified or remedied by the Board (or otherwise) in respect of Clause 39.1.1, or Clause 39.1.3 within sixty (60) Business Days of such notice, and in respect of Clause 39.1.2 within thirty (30) Business Days of such notice, Project Co may serve a further notice on the Board (or its substitute notified in accordance with this Clause 39.2.2) terminating this Agreement with immediate effect.

39.3 Project Co shall not exercise or purport to exercise any right to terminate this Agreement (or accept any repudiation of this Agreement) except as expressly set out in this Agreement.

40. PROJECT CO EVENT OF DEFAULT

Project Co Event of Default

40.1 For the purposes of this Agreement, Project Co Event of Default means any of the following events or circumstances:

Insolvency

40.1.1 the occurrence of any of the following events in respect of Project Co, namely:

(a) any arrangement or composition with or for the benefit of creditors (including any voluntary arrangement as defined in the Insolvency Act 1986) being entered into by or in relation to Project Co;

(b) a receiver, administrator, administrative receiver or other encumbrancer taking possession of or being appointed over, or any distress, execution or other process being levied or enforced (and not being discharged within ten (10) Business Days) upon, the whole or any material part of the assets of Project Co;

(c) Project Co ceasing to carry on business;

(d) a petition being presented (and not being discharged within twenty (20) Business Days), or a resolution being passed or an order being made for the administration or the winding up, bankruptcy or dissolution of Project Co[; or

(e) if Project Co shall suffer any event analogous to the events set out in Clauses 40.1.1(a) to (d) in any jurisdiction in which it is incorporated or resident];

Long stop

40.1.2 Project Co failing to achieve the Actual Completion Date within a period of eighteen (18) months after the Completion Date;

Default

40.1.3

(a) Project Co committing a material breach of its obligations under this Agreement which has a material and adverse effect on the delivery of the Board Services (other than as a consequence of a breach by the Board of its obligations under this Agreement);

(b) Project Co wilfully breaches Schedule Part 23 (*Refinancing*);

40.1.4 Project Co abandoning this Agreement;

Health and safety

40.1.5 at any time after the Actual Completion Date Project Co committing a material breach of its obligations under this Agreement (other than as a consequence of a breach by the Board of its obligations under this Agreement) which results in the criminal investigation, prosecution and conviction of Project Co or any Project Co Party or the Board under the Health and Safety Regime (an "H&S Conviction") provided that an H&S Conviction of a Project Co Party or the Board shall not constitute a Project Co Event of Default if, within ninety (90) Business Days from the date of the H&S Conviction (whether or not the H&S Conviction is subject to an appeal or any further judicial process), the involvement in the Project Operations of each relevant Project Co Party (which in the case of an individual director, officer or employee shall be deemed to include the Project Co Party of which that person is a director, officer or employee) is terminated and a replacement is appointed by Project Co in accordance with Clause 57.5 (Sub contracting);

In determining whether to exercise any right of termination or right to require the termination of the engagement of a Project Co Party pursuant to this Clause 40.1.5, the Board shall:

(a) act in a reasonable and proportionate manner having regard to such matters as the gravity of any offence and the identity of the person committing it; and

(b) give all due consideration, where appropriate, to action other than termination of this Agreement;

Change in Control

40.1.6 the occurrence of any Change in Control which is prohibited by Clause 58 (*Ownership Information and Changes in Control*);

Assignation

40.1.7 Project Co failing to comply with the provisions of Clauses 57.2 or 57.5;

Deductions

40.1.8 in each of any three Contract Months in any six consecutive Contract Months Project Co has suffered Deductions equal to or greater than 0.123% percent of the Annual Service Payment for the current Contract Year; or

Warning Notices

40.1.9 Project Co is awarded a total of four (4) or more Warning Notices in any period of twelve (12) consecutive months; or

Payment

40.1.10 Project Co failing to pay any sum or sums due to the Board under this Agreement (which sums are not in dispute) which, either singly or in aggregate, exceed(s) one hundred and fifty thousand pounds (£150,000) (index linked) and such failure continues for sixty (60) Business Days from receipt by Project Co of a notice of non payment from the Board; or

Insurance

40.1.11 a breach by Project Co of its obligation to take out and maintain the insurances required by Clauses 53.1 and 53.2.

Notification

40.2 Project Co shall notify the Board of the occurrence, and details, of any Project Co Event of Default and of any event or circumstance which is likely, with the passage of time or otherwise, to constitute or give rise to a Project Co Event of Default, in either case promptly on Project Co becoming aware of its occurrence.

Board's options

40.3 On the occurrence of a Project Co Event of Default, or within a reasonable time after the Board becomes aware of the same, and while the same is subsisting, the Board may:

40.3.1 in the case of the Project Co Events of Default referred to in Clauses 40.1.1 (*Insolvency*), 40.1.2 (*Long Stop*), 40.1.3(b), 40.1.5 (*Health and Safety*), 40.1.6 (*Change in Control*), 40.1.7 (*Assignation*), 40.1.8 (*Deductions*) 40.1.9 (*Warning Notices*), or 40.1.10 (*Payment*),

terminate this Agreement in its entirety by notice in writing having immediate effect;

40.3.2 in the case of any Project Co Event of Default referred to in Clause 40.1.3(a) and 40.1.4, serve notice of default on Project Co requiring Project Co at Project Co's option either:

(a) to remedy the Project Co Event of Default referred to in such notice of default (if the same is continuing) within twenty (20) Business Days of such notice of default; or

(b) to put forward within twenty (20) Business Days of such notice of default a reasonable programme (set out, if appropriate, in stages) for remedying the Project Co Event of Default. The programme shall specify in reasonable detail the manner in, and the latest date by, which such Project Co Event of Default is proposed to be remedied (Project Co shall only have the option of putting forward a programme in accordance with this Clause40.3.2(b) if it first notifies the Board within ten (10) Business Days of such notice of default that it proposes to do so); and

40.3.3 in the case of any Project Co Event of Default referred to in Clause 40.1.11 *(Insurance)* serve notice of default on Project Co requiring Project Co to remedy the Project Co Event of Default (if the same is continuing) within twenty (20) Business Days of such notice of default.

Remedy provisions

40.4 Where Project Co puts forward a programme in accordance with Clause 40.3.2(b), the Board shall have twenty (20) Business Days from receipt of the same within which to notify Project Co (acting reasonably) that it does not accept the programme, failing which the Board shall be deemed to have accepted the programme. Where the Board notifies Project Co that it does not accept the programme as being reasonable, the parties shall endeavour within the following five (5) Business Days to agree any necessary amendments to the programme put forward. In the absence of agreement within five (5) Business Days, the question of whether the programme (as the same may have been amended by agreement) will remedy the Project Co Event of Default in a reasonable manner and within a reasonable time period (and, if not, what would be a reasonable programme) may be referred by either party for resolution in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

40.5 If:

40.5.1 the Project Co Event of Default notified in a notice of default served under Clause 40.3.2 or Clause 40.3.3 (as the case may be) is not remedied before the expiry of the period referred to in Clause 40.3.2(a) or Clause 40.3.3 (as appropriate); or

40.5.2 where Project Co puts forward a programme pursuant to Clause 40.3.2(b) which has been accepted by the Board or has been determined to be reasonable and Project Co fails to achieve any element of the programme or the end date for the programme (as the case may be); or

40.5.3 any programme put forward by Project Co pursuant to Clause 40.3.2(b) is rejected by the Board as not being reasonable, and the Dispute Resolution Procedure does not find against that rejection,

then the Board may terminate this Agreement in its entirety by written notice to Project Co with immediate effect. Provided that for the purposes of Clause 40.5.2 if Project Co's performance of the programme is adversely affected by the occurrence of Force Majeure, a Relief Event or an Excusing Cause then, subject to Project Co complying with the mitigation and other requirements in this Agreement concerning Force Majeure, a Relief Event or an Excusing Cause (as the case may be), the time for performance of the programme or any relevant element of it shall be deemed to be extended by a period equal to the delay caused by Force Majeure, the Relief Event or the Excusing Cause (as the case may be) which is agreed by the parties or determined in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

Board's costs

40.6 Project Co shall reimburse the Board for all reasonable costs incurred by the Board in exercising any of its rights pursuant to this Clause 40 (*Project Co Event of Default*) (including, without limitation, any relevant increased administrative expenses). The Board shall take reasonable steps to mitigate such costs.

40.7 The Board shall not exercise, or purport to exercise, any right to terminate this Agreement except as expressly set out in this Agreement. The rights of the Board (to terminate or otherwise) under this Clause are in addition (and without prejudice) to any right which the Board may have to claim the amount of loss or damage suffered by the Board on account of the acts or omissions of Project Co (or to take any action other than termination of this Agreement).

41. TERMINATION RESULTING FROM FORCE MAJEURE

If, in the circumstances referred to in Clause 31 (*Force Majeure*), the parties have failed to reach agreement on any modification to this Agreement pursuant to Clause 31 (*Force Majeure*) within six (6) calendar months of the date on which the party affected serves notice on the other party in accordance with Clause 31 (*Force Majeure*) either party may at any time afterwards terminate this Agreement by written notice to the other party having immediate effect provided always that the effects of the relevant event of Force Majeure continues to prevent either party from performing any material obligation under this Agreement.

42. BOARD VOLUNTARY TERMINATION

42.1 The Board shall be entitled to terminate this Agreement at any time on six (6)

months' written notice to Project Co. In the event of notice being given by the Board in accordance with this Clause, the Board shall, at any time before the expiration of such notice, be entitled to direct Project Co, where the Works (or any part or parts of the Works) or any Service (or any elements of any Service) have not been commenced, to refrain from commencing any such Works or Services (or to procure the same).

43. EXPIRY

This Agreement shall terminate automatically on the Expiry Date unless it shall have been terminated earlier in accordance with the provisions of this Agreement. To avoid doubt, Project Co shall not be entitled to any compensation for termination of this Agreement on the Expiry Date.

44. CORRUPT GIFTS AND PAYMENTS

Prohibition on corruption

44.1 The term "**Prohibited Act**" means:

44.1.1 offering, giving or agreeing to give to the Board or any other public body or to any person employed by or on behalf of the Board or any other public body any gift or consideration of any kind as an inducement or reward:

(a) for doing or not doing (or for having done or not having done) any act in relation to the obtaining or performance of this Agreement or any other agreement with the Board or any other public body; or

(b) for showing or not showing favour or disfavour to any person in relation to this Agreement or any other agreement with the Board or any other public body;

44.1.2 entering into this Agreement or any other agreement with the Board or any other public body in connection with which commission has been paid or has been agreed to be paid by Project Co or on its behalf, or to its knowledge, unless before the relevant agreement is entered into particulars of any such commission and of the terms and conditions of any such agreement for the payment of such commission have been disclosed in writing to the Board;

44.1.3 committing any offence:

(a) under the Bribery Act 2010;

(b) under any Law creating offences in respect of fraudulent acts;

or

(c) at common law, in respect of fraudulent acts in relation to this Agreement or any other agreement with the Board or any other public body; or

44.1.4 defrauding or attempting to defraud or conspiring to defraud the Board or any other public body.

Warranty

44.2 Project Co warrants that in entering into this Agreement it has not committed any Prohibited Act.

Remedies

44.3 If Project Co or any Project Co Party (or anyone employed by or acting on behalf of them) commits any Prohibited Act, then the Board shall be entitled to act in accordance with Clauses 44.3.1 to 44.3.6 below:

44.3.1 if a Prohibited Act is committed by Project Co or by an employee not acting independently of Project Co, then the Board may terminate this Agreement with immediate effect by giving written notice to Project Co;

44.3.2 if the Prohibited Act is committed by an employee of Project Co acting independently of Project Co, then the Board may give written notice to Project Co of termination and this Agreement will terminate, unless within twenty (20) Business Days of receipt of such notice Project Co terminates the employee's employment and (if necessary) procures the performance of the relevant part of the Works and/or Services by another person;

44.3.3 if the Prohibited Act is committed by a Contracting Associate or by an employee of that Contracting Associate not acting independently of that Contracting Associate then the Board may give written notice to Project Co of termination and this Agreement will terminate, unless within twenty (20) Business Days of receipt of such notice Project Co terminates the relevant Sub-Contract and procures the performance of the relevant part of the Works and/or Services by another person, where relevant, in accordance with Clause 57 (*Assignation and Sub-Contracting*);

44.3.4 if the Prohibited Act is committed by an employee of a Contracting Associate acting independently of that Contracting Associate, then the Board may give notice to Project Co of termination and this Agreement will terminate, unless within twenty (20) Business Days of receipt of such notice Project Co procures the termination of the employee's employment and (if necessary) procures the performance

of the relevant part of the Works and/or Services by another person;

44.3.5 if the Prohibited Act is committed by any other person not specified in Clauses 44.3.1 to 44.3.4 above, then the Board may give notice to Project Co of termination and this Agreement will terminate unless within twenty (20) Business Days Project Co procures the termination of such person's employment and of the appointment of their employer (where the employer is not the Board and where such person is not employed by Project Co or the Contracting Associate) and (if necessary) procures the performance of the relevant part of the Works and/or Services by another person; and

44.3.6 any notice of termination under this Clause shall specify:

(a) the nature of the Prohibited Act;

(b) the identity of the party who the Board believes has committed the Prohibited Act; and

(c) the date on which this Agreement will terminate in accordance with the applicable provisions of this Clause.

44.4 Without prejudice to its other rights or remedies under this Clause, the Board shall be entitled to recover from Project Co:

44.4.1 the amount or value of any such gift, consideration or commission; and

44.4.2 any other loss sustained in consequence of any breach of this Clause.

Permitted payments

44.5 Nothing contained in this Clause shall prevent Project Co from paying any proper commission or bonus to its employees within the agreed terms of their employment.

Notification

44.6 Project Co shall notify the Board of the occurrence (and details) of any Prohibited Act promptly on Project Co becoming aware of its occurrence.

Interim Management

44.7 Where Project Co is required to replace any Sub Contractor pursuant to this

Clause, the provisions of Clause 57.9 shall apply and be construed accordingly.

45. BREACH OF THE NPD REQUIREMENTS

Breach by Project Co

45.1 If Project Co breaches Clause 36 (*Payment of Surpluses and Compliance with NPD Requirements*) then the Board may terminate this Agreement, at any time within 18 months of becoming aware of such breach, in accordance with Clause 45.2 below. The Board shall inform Project Co of the occurrence of any such breach as soon as reasonably practicable after becoming aware of the breach, provided that failure by the Board to so inform Project Co shall not constitute a breach of this Agreement by the Board and shall not prejudice the exercise of its rights under Clause 45.2.

Notice of Termination

45.2 If the Board wishes to terminate this Agreement under this Clause 45 (*Breach of the NPD Requirements*), it must first give Project Co notice stating:

45.2.1 that the Board is terminating this Agreement under this Clause 45 *(Breach of the NPD Requirements)*; and

45.2.3 that this Agreement will terminate on the date falling 30 Business Days after the date of receipt of the notice.

and this Agreement will terminate on the day falling 30 Business Days after Project Co receives the notice unless Project Co demonstrates to the satisfaction of the Board (acting reasonably) that such breach was caused by an administrative error of Project Co and Project Co rectifies such breach within 10 Business Days of receipt of such notice, in which the notice shall be deemed not to have been served.

46. COMPENSATION ON TERMINATION

46.1 If this Agreement is terminated pursuant to Clause 41 (*Termination Resulting from Force Majeure*), then the Board shall pay compensation to Project Co in accordance with Section 3 (*Consequence of Termination for Force Majeure*) of Schedule Part 17 (*Compensation on Termination*).

46.2 If this Agreement is terminated pursuant to Clause 40 (*Project Co Events of Default*) other than pursuant to Clause 40.1.3(b), then the Board shall pay compensation to Project Co in accordance with Section 2 (*Compensation on Project Co Default*) of Schedule Part 17 (*Compensation on Termination*).

46.3 If this Agreement is terminated pursuant to Clause 39 (*Board Events of Default*), then the Board shall pay compensation to Project Co in accordance with Section 1

(*Compensation on Termination for Board Default and Voluntary Termination*) of Schedule Part 17(*Compensation on Termination*).

46.4 If this Agreement is terminated pursuant to Clause 42 (*Voluntary Termination*), then the Board shall pay compensation to Project Co in accordance with Section1 (*Compensation on Termination for Board Default and Voluntary Termination*) of Schedule Part 17 (*Compensation on Termination*).

46.5 If this Agreement is terminated pursuant to Clause 40.1.3(b), Clause 44.3 or Clause 45 (*Breach of the* NPD *Requirements*) then the Board shall pay compensation to Project Co in accordance with Section 4 (*Corrupt Gifts and Fraud or Breach of Refinancing or Breach of NPD Requirements*) of Schedule Part 17 (*Compensation on Termination*).

Tax equalisation

46.6 Where a payment is to be made to Project Co pursuant to Clause 46.1, Clause 46.3, Clause 46.4 or Clause 46.5 (a "**Compensation Payment**") and Project Co has a Relevant Tax Liability in respect of such payment, then the amount of the Compensation Payment to be made by the Board to Project Co shall be increased so as to ensure that Project Co is in the same position (after account is taken of the Relevant Tax Liability) as it would have been in had it not been for such Relevant Tax Liability.

46.7 For the purposes of this Clause 46 (*Compensation on Termination*):

46.7.1 "**Relief**" shall mean any relief, allowance or deduction in computing profits or tax or a credit against, or right to repayment of, tax granted by or pursuant to any legislation for tax purposes;

46.7.2 a "**Relief derived from the Project**" is a Relief which arises in connection with the Project and includes any Relief arising as a consequence of the distribution of any amount obtained in respect of the Project (other than a Compensation Payment) by Project Co (whether by way of interest, dividend or other distribution, repayment, reduction or redemption of capital or indebtedness or return of assets or otherwise); and

46.7.3 Project Co shall be regarded as having a "**Relevant Tax Liability**" in respect of a Compensation Payment to the extent that:

(a) it has a liability for tax in consequence of or in respect of a Compensation Payment ("**Actual Liability**"); or

(b) it would have had a liability for tax within paragraph (a) above but for the utilisation of a Relief other than a Relief derived from the Project ("**Deemed Liability**").

46.8 In determining whether Project Co has a Relevant Tax Liability by reason of a Compensation Payment, it should be assumed that any Reliefs derived from the Project which are available to Project Co (or would have been so available but for a surrender by Project Co of such Reliefs by way of group or consortium relief) for offset against the Compensation Payment, or against tax in relation to the same, have been so offset to the maximum extent possible.

46.9 Project Co shall keep the Board fully informed of all negotiations with the HM Revenue and Customs in relation to any Relevant Tax Liability in respect of a Compensation Payment. Project Co shall not agree, accept or compromise any claim, issue or dispute relating to such Relevant Tax Liability without the prior written consent of the Board, which shall not be unreasonably withheld or delayed. The Board may, if it considers in good faith that such action is justified having regard to the likely costs and benefits, direct Project Co to resist, appeal, defend or otherwise dispute the Relevant Tax Liability in respect of the Compensation Payment, provided that the cost of any such dispute (including any interest or penalties incurred) shall be at the Board's expense. However, if Project Co obtains professional advice from an independent person with relevant expertise that any resistance, appeal, defence or other mode of dispute is not likely to result in any more beneficial position in relation to the Relevant Tax Liability, Project Co shall be entitled not to continue with such resistance, appeal, defence or other mode of dispute. Where any resistance, appeal, defence or other mode of dispute results in a more beneficial position in relation to the Relevant Tax Liability, an adjustment will be made to the amount payable under Clause 46.6 to reflect such outcome.

46.10 Any increase in the amount of a Compensation Payment which is payable under Clause 46.6 shall be paid on the later of five (5) Business Days after a demand therefore (together with evidence in sufficient detail for the Board to satisfy itself of the Relevant Tax Liability and its calculation) is made by Project Co and:

46.10.1 in the case of an Actual Liability, five (5) Business Days before the date on which the relevant tax must be paid to the tax Board in order to avoid incurring interest and penalties; and

46.10.2 in the case of a Deemed Liability, five (5) Business Days before the date on which tax which would not have been payable but for the utilisation of the relevant Relief must be paid in order to avoid incurring interest or penalties (whether by Project Co or otherwise) and, for the purposes of determining when the Relief would otherwise have been utilised, Reliefs shall be regarded as utilised in the order in which they arise.

46.11 The Board shall have the right to pay the amount payable under Clause 46.6 direct to HM Revenue and Customs in satisfaction of the relevant tax due by Project Co.

Rights of Set-Off

46.12 To avoid doubt, the Board's obligations to make any payment of compensation to Project Co pursuant to this Clause are subject to the Board's rights under Clause 34.6, save that the Board agrees not to set-off any amount agreed or determined as due and payable by Project Co to the Board against any payment of

termination compensation (whether payable as a lump sum or in instalments) under Clauses 46.1, 46.3, 46.4 or 46.5, except to the extent that such termination payment exceeds the Base Senior Debt Termination Amount or the Revised Senior Debt Termination Amount (as the case may be) at that time.

Full and final settlement

46.13 Subject to the provisions of paragraph 2.1 of Section 5 (*General*) of Schedule Part 17 (*Compensation on Termination*):

46.13.1 any compensation paid pursuant to this Clause shall be in full and final settlement of any claim, demand and/or proceedings of Project Co in relation to any termination of this Agreement and/or any Project Document (and the circumstances leading to such termination) and Project Co shall be excluded from all other rights and remedies in respect of any such termination; and

46.13.2 the compensation payable (if any) pursuant to this Clause 46 (*Compensation on Termination*) above shall be the sole remedy of Project Co and Project Co shall not have any other right or remedy in respect of such termination.

47. CONSEQUENCES OF TERMINATION

Continued performance

47.1 Subject to any exercise by the Board of its rights to perform, or to procure a third party to perform, the obligations of Project Co, the parties shall continue to perform their obligations under this Agreement, notwithstanding the giving of any notice of default or notice of termination, until the Termination Date.

Transfer to Board of Assets, Contracts etc.

47.2 On the service of a notice of termination in accordance with this Agreement for any reason:

47.2.1 if prior to the Actual Completion Date, in so far as any transfer shall be necessary fully and effectively to transfer property to the Board, Project Co shall transfer to, and there shall vest in, the Board, such part of the Works and/or the Facilities as shall have been constructed and such items of the Plant and Equipment as shall have been procured by Project Co if the Board so elects:

47.2.2 all goods and all materials on or near to the Site and/or Off-Site not yet incorporated in the Works shall remain available to the Board for the purposes of completing the Works and if the cost of such goods and materials has not been reflected in the payment of any compensation pursuant to Schedule Part 17 (*Compensation on*

Termination), subject to the payment by the Board (determined as between a willing vendor and willing purchaser with any disputes determined pursuant to Clause 56 (*Dispute Resolution Procedure*));

47.2.3 the construction plant shall remain available to the Board for the purposes of completing the Works, subject to payment of the Contractor's reasonable charges;

47.2.4 Project Co shall hand over to, and there shall vest in, the Board, free from any Encumbrances (other than any created on or by or against the Board), the Facilities, the Retained Estate Handback Infrastructure and Equipment (which in the case of the termination of this Agreement in accordance with Clause 43 (*Expiry*) shall be in the state required in accordance with Schedule Part 18 (*Handback Procedure*));

47.2.5 if the Board so elects, Project Co shall procure that any of the Construction Contract, the Service Contracts and/or the Independent Tester Contract shall be novated or assigned to the Board, provided that where termination occurs under Clause 39 (*Board Events of Default*) the consent of the Contractor, the Service Provider or the Independent Tester (as the case may be) shall be required;

47.2.6 Project Co shall, or shall procure that any Contracting Associate shall (as the case may be), offer to sell to the Board at a fair value (determined as between a willing vendor and willing purchaser, with any disputes as to such fair value being determined pursuant to Schedule Part 20 (*Dispute Resolution Procedure*), free from any Encumbrance all or any part of the stocks of material and other assets, road vehicles, spare parts and other moveable property owned by Project Co or any of its Contracting Associates and reasonably required by the Board in connection with the operation of the Facilities or the provision of the Services;

47.2.7 Project Co shall deliver to the Board (as far as not already delivered to the Board) three (3) hard copies and one (1) electronic copy of complete sets of:

(a) "as built drawings" showing all alterations made to the Facilities since the commencement of operation of the Facilities; and

(b) maintenance, operation and training manuals for the Facilities and the Retained Estate Handback Infrastructure;

47.2.8 Project Co shall use all reasonable endeavours to procure that the benefit of all manufacturer's warranties in respect of mechanical and electrical plant and equipment used or made available by Project Co under this Agreement and included in the Facilities and the Retained Estate Handback Infrastructure are assigned, or otherwise transferred, to the Board with full title guarantee; and

47.2.9 Project Co shall deliver to the Board in relation to the employees employed by Project Co and/or Service Providers and] the records referred to in Clause 38 (*Records and Open Book* Accounting) except where such documents are required by Law to be retained by Project Co or its Contracting Associates (in which case complete copies shall be delivered to the Board).

47.3 Project Co shall ensure that provision is made in all contracts of any description whatsoever to ensure that the Board will be in a position to exercise its rights, and Project Co will be in a position to comply with its obligations, under Clause 47.2.

Transitional arrangements

47.4 On the termination of this Agreement for any reason, for a reasonable period both before and after any such termination, Project Co shall have the following duties:

47.4.1 Project Co shall co-operate fully with the Board and any successor providing to the Board services in the nature of any of the Services or any part of the Services in order to achieve a smooth transfer of the manner in which the Board obtains services in the nature of the Services and to avoid or mitigate in so far as reasonably practicable any inconvenience or any risk to the health and safety of the employees of the Board and members of the public;

47.4.2 Project Co shall as soon as practicable remove from the Site and/or Off-Site, all property not acquired by the Board pursuant to Clause 47.2 (or not belonging to the Board or any Board Party) and if it has not done so within forty (40) Business Days after any notice from the Board requiring it to do so the Board may (without being responsible for any loss, damage, costs or expenses) remove and sell any such property and shall hold any proceeds less all costs incurred to the credit of Project Co;

47.4.3 Project Co shall forthwith deliver to the Board's Representative:

(a) any security passwords, access codes and other keys to the Facilities and the Retained Estate Handback Infrastructure and the equipment; and

(b) without prejudice to Clause 55 (*Intellectual Property*), any copyright licences for any computer programmes (or licences to use the same) necessary for the operation of the Facilities and the Retained Estate Handback Infrastructure (but excluding computer programmes, which have been developed or acquired by a Service Provider for its own use and not solely for the purposes of provision of any of the Services at the Facilities or the assignation or transfer of which is otherwise restricted); and

47.4.5 Project Co shall as soon as practicable vacate the Site and Off-Site ,

and (without prejudice to Schedule Part 18 (*Handback* Procedure)) shall leave the Site and Off-Site and the Facilities and the Retained Estate Handback Infrastructure, in a safe, clean and orderly condition.

47.5 If the Board wishes to conduct a competition prior to the Expiry Date with a view to entering into an agreement for the provision of services (which may or may not be the same as, or similar to, the Services or any of them) following the expiry of this Agreement, Project Co shall co-operate with the Board fully in such competition process including (without limitation) by:

47.5.1 providing any information which the Board may reasonably require to conduct such competition but, to avoid doubt, information which is commercially sensitive to Project Co shall not be provided (and, for the purpose of this Clause 47.5.1 commercially sensitive shall mean information which would if disclosed to a competitor of Project Co give that competitor a competitive advantage over Project Co and thereby prejudice the business of Project Co but shall, to avoid doubt, exclude any information to be disclosed in terms of Clause 25 (*TUPE and Employment matters*)); and

47.5.2 assisting the Board by providing all (or any) participants in such competition process with access to the Site, Off-Site and the Facilities and the Retained Estate Handback Infrastructure.

Continuing Obligations

47.6 Save as otherwise expressly provided in this Agreement or as already taken into account in the calculation of any termination sum or other payment of compensation on termination pursuant to this Agreement:

47.6.1 termination of this Agreement shall be without prejudice to any accrued rights and obligations under this Agreement as at the date of termination; and

47.6.2 termination of this Agreement shall not affect the continuing rights and obligations of Project Co and the Board under Clauses 10 (*The Site*), 25 (*TUPE and Employment Matters*), 31 (*Force Majeure*), 34 (*Payment*), 35 (*Taxation*), 36 (*Payment of Surpluses and compliance with NPD Requirements*), 37 (*Custody of Financial Model*), 38 (*Records and Reports*), 41 (*Termination Resulting from Force Majeure*), 42 (*Board Voluntary Termination*), 44 (*Corrupt Gifts and Payments*), 46 (*Compensation on Termination*), 47.2, 47.4 and 47.5 (*Transitional Arrangements*), 49 (*Indemnities and Liability*), 53 (*Insurance*), 54 (*Exclusions and Limits on Liability*), 55 (*Intellectual Property*), 56 (*Dispute Resolution Procedure*), 59 (*Mitigation*), 61(*Confidentiality*), 64 (*Notices*) and Clause 74 (*Governing Law and Jurisdiction*) or under any other provision of this Agreement which is expressed to survive termination or which is required to give effect to such termination or the consequences of such termination.

48. HANDBACK PROCEDURE

The provisions of Schedule Part 18 (*Handback Procedure*) shall apply to the handback of the Facilities to the Board on expiry of this Agreement.

PART 11: INDEMNITIES, WARRANTIES & INSURANCE

49. INDEMNITIES

Project Co indemnities to Board

49.1 Project Co shall indemnify and keep the Board indemnified at all times from and against all Direct Losses sustained by the Board in consequence of:

49.1.1 any claim for, or in respect of, the death and/or personal injury of any employee of, or person engaged by, Project Co or any Project Co Party notwithstanding any act or omission of the Board or any Board Party;

49.1.2 any claim for, or in respect of, the death and/or personal injury of any third party (other than a person referred to in Clause 49.2.1) arising out of, or in the course of, the Project Operations, save to the extent caused (or contributed to) by any Unreasonable Act by the Board or any Board Party, breach of any express provision of this Agreement by the Board or any Board Party or any deliberate or negligent act or omission of the Board or any Board Party;

49.1.3 any physical loss of or damage to Board Assets arising by reason of any act or omission of Project Co or any Project Co Party, save to the extent that such loss or damage arises out of the breach of any express provision of this Agreement by the Board or any Board Party or any deliberate or negligent act or omission of the Board or any Board Party; and

49.1.4 any loss of or damage to property or assets of any third party arising by reason of any act or omission of Project Co or any Project Co Party, save to the extent that such loss or damage arises out of the breach of any express provision of this Agreement by the Board or any Board Party or any deliberate or negligent act or omission of the Board or any Board Party.

49.1.5 any breach of and/or any negligent act in complying with the terms of the Interface Proposals and/or paragraphs 4.4(b), 4.4(e), 4.5.1A, 4.5.12, 6.1.1, 6.1.2 and/or 7.5(j)[4] of Sub-Section C of the Board's Construction Requirements and/or Appendix A *(Interface with Campus Site and/or Campus Facilities)* of the of the Board's Construction Requirements, by Project Co or any Project Co Party;

49.1.6 any breach of Clause 9.5.1 *(Extent of Rights)* insofar as relates to the Reserved Rights set out in paragraphs 9 and 10 of Section 2 *(Reserved Rights)* of Schedule Part 5 *(Land Matters)* by Project Co or any Project Co Party.

[4] Essentially covering noise dust pollution and mud on roads etc and also the existing sewer and possible gas pipe that may continue to run under the Site.

Board indemnities to Project Co

49.2 The Board shall indemnify and keep Project Co indemnified at all times from and against all Direct Losses sustained by Project Co in consequence of:

49.2.1 any claim for, or in respect of, the death and/or personal injury of any employee of, or person engaged by, the Board or any Board Party notwithstanding any act or omission of Project Co or any Project Co Party;

49.2.2 any claim for, or in respect of, the death and/or personal injury of any third party (other than a person referred to in Clause 49.1.1) arising by reason of any act or omission of the Board or any Board Party in the course of provision of the Board Services, any Unreasonable Act by the Board or any Board Party, breach of any express provision of this Agreement by the Board or any Board Party or any deliberate act or omission of the Board or any Board Party, save to the extent caused (or contributed to) by any act or omission of Project Co or any Project Co Party;

49.2.3 any physical damage to any part of the Facilities or any assets or other property of Project Co or any Project Co Party arising by reason of any breach of any express provision of this Agreement by the Board or any Board Party or any deliberate act or omission of the Board or any Board Party, save to the extent caused (or contributed to) by any act or omission of Project Co or any Project Co Party; and

49.2.4 any loss of or damage to property or assets of any third party arising by reason of any breach of any express provision of this Agreement by the Board or any Board Party or any deliberate act or omission of the Board or any Board Party, save to the extent caused (or contributed to) by any act or omission of Project Co or any Project Co Party;

provided that in the case of Clauses 49.2.3 and 49.2.4 there shall be excluded from the indemnity given by the Board any liability:

(a) for the occurrence of risks against which and to the extent to which Project Co is obliged to insure under this Agreement (but for the avoidance of doubt, not such liability to the extent within any applicable excess or deductible or over the maximum amount insured or to be insured under such insurance); or

(b) in respect of a matter which is a Compensation Event; or

(c) in respect of malicious damage.

Conduct of claims

49.3 This Clause 49.3 (*Conduct of Claims*) shall apply to the conduct, by a party from whom an indemnity is sought under this Agreement, of claims made by a third person against a party having (or claiming to have) the benefit of the indemnity. The party having, or claiming to have, the benefit of the indemnity is referred to as the "**Beneficiary**" and the party giving the indemnity is referred to as the "**Indemnifier**". Accordingly:

49.3.1 if the Beneficiary receives any notice, demand, letter or other document concerning any claim for which it appears that the Beneficiary is, or may become, entitled to indemnification under this Agreement, the Beneficiary shall give notice in writing to the Indemnifier as soon as reasonably practicable and in any event within twenty (20) Business Days of receipt of the same;

49.3.2 subject to Clauses 49.3.3, 49.3.4 and 49.3.5 below, on the giving of a notice by the Beneficiary pursuant to Clause 49.3.1 above, where it appears that the Beneficiary is or may be entitled to indemnification from the Indemnifier in respect of all (but not part only) of the liability arising out of the claim, the Indemnifier shall (subject to providing the Beneficiary with an indemnity to its reasonable satisfaction against all costs and expenses that it may incur by reason of such action) be entitled to dispute the claim in accordance with the Dispute Resolution Procedure in the name of the Beneficiary at the Indemnifier's own expense and take conduct of any defence, dispute, compromise, or appeal of the claim and of any incidental negotiations. The Beneficiary shall give the Indemnifier all reasonable co operation, access and assistance for the purposes of considering and resisting such claim;

49.3.3 with respect to any claim conducted by the Indemnifier pursuant to Clause 49.3.2 above:

(a) the Indemnifier shall keep the Beneficiary fully informed and consult with it about material elements of the conduct of the claim;

(b) the Indemnifier shall not bring the name of the Beneficiary into disrepute; and

(c) the Indemnifier shall not pay or settle such claims without the prior consent of the Beneficiary, such consent not to be unreasonably withheld or delayed;

49.3.4 the Beneficiary shall be free to pay or settle any claim on such terms as it thinks fit and without prejudice to its rights and remedies under this Agreement if:

(a) the Indemnifier is not entitled to take conduct of the claim in accordance with Clause 49.3.2 above; or

(b) the Indemnifier fails to notify the Beneficiary of its intention to take conduct of the relevant claim within twenty (20) Business Days of the notice from the Beneficiary under Clause 49.3.1 above or notifies the Beneficiary that it does not intend to take conduct of the claim; or

(c) the Indemnifier fails to comply in any material respect with the provisions of Clause 49.3.3 above;

49.3.5 the Beneficiary shall be free at any time to give notice to the Indemnifier that it is retaining or taking over (as the case may be) the conduct of any defence, dispute, compromise or appeal of any claim (or of any incidental negotiations) to which Clause 49.3.2 above applies. On receipt of such notice the Indemnifier shall promptly take all steps necessary to transfer the conduct of such claim to the Beneficiary, and shall provide to the Beneficiary all reasonable co operation, access and assistance for the purposes of considering and resisting such claim. If the Beneficiary gives any notice pursuant to this Clause 49.1, then the Indemnifier shall be released from any liability under its indemnity under Clause 49.2 (Project Co Indemnities to Board) or Clause 49.2 (*Board Indemnities to Project Co*) (as the case may be) and, without prejudice to any accrued liabilities, any liability under its indemnity given pursuant to Clause 49.3.2 in respect of such claim;

49.3.6 if the Indemnifier pays to the Beneficiary an amount in respect of an indemnity and the Beneficiary subsequently recovers (whether by payment, discount, credit, saving, relief or other benefit or otherwise) a sum which is directly referable to the fact, matter, event or circumstances giving rise to the claim under the indemnity, the Beneficiary shall forthwith repay to the Indemnifier whichever is the lesser of:

(a) an amount equal to the sum recovered (or the value of the saving or benefit obtained) less any out of pocket costs and expenses properly incurred by the Beneficiary in recovering the same; and

(b) the amount paid to the Beneficiary by the Indemnifier in respect of the claim under the relevant indemnity,

49.3.7 provided that there shall be no obligation on the Beneficiary to pursue such recovery and that the Indemnifier is repaid only to the extent that the amount of such recovery aggregated with any sum recovered from the Indemnifier exceeds any loss sustained by the Beneficiary (including for this purpose indirect or consequential losses or claims for loss of profits which are excluded by this Agreement from being recovered from the Indemnifier); and

49.3.8 any person taking any of the steps contemplated by Clauses 49.3.1 to 49.3.5 shall comply with the requirements of any insurer who may have an obligation to provide an indemnity in respect of any liability arising under this Agreement.

Mitigation – indemnity claims

49.4 To avoid doubt the provisions of Clause 59 (*Mitigation*) apply to any indemnity given under this Agreement and any such indemnity shall not apply to the extent that such part or parts of Direct Losses could have been reduced or avoided by the Beneficiary complying with the provisions of such Clause 59 (*Mitigation*).

49A MALICIOUS DAMAGE

49A.1 Remit of Clause

This Clause 49A specifies the respective obligations of the parties in relation to malicious damage to the Facilities during the Operational Term.

49A.2 Notification

49A.2.1 As soon as possible after a Service Event has been notified to the Helpdesk or after Project Co has itself or by a Service Provider become aware of a Service Event, if it considers that the Service Event was caused by malicious damage by a person other than a Project Co Party, Project Co must verbally inform the Helpdesk and the Board's Representative (a "**Malicious Damage Report**"). Where it is reasonably practicable for it to do so without prejudicing its ability to achieve Rectification of the Service Event within the Rectification Period and subject to any immediate steps that it requires to take to make the Facilities safe, it must allow the Board's Representative an opportunity to inspect the evidence it relies on to support its claim that malicious damage caused the Service Event concerned before carrying out Rectification and, where this is not reasonably practicable, Project Co must take reasonable steps to preserve or record in a suitable manner any such evidence and forthwith make that record available to the Board.

49A.2.2 Provided Project Co has complied with the requirements of Clause 49A.2.1, unless within twelve (12) hours of receipt of a Malicious Damage Report the Board's Representative notifies Project Co that he agrees that the Service Event referred to in the relevant Malicious Damage Report was caused by malicious damage by a person other than a Project Co Party, the Board's Representative will be deemed to have disagreed that the Service Event concerned was caused by malicious damage by a person other than a Project Co Party.

49A.3 Rectification of Malicious Damage

49A.3.1 In relation to any Service Event referred to in a Malicious Damage Report, Project Co shall always take such steps as are necessary in accordance with its obligations under this Agreement to make the Facilities safe.

49A.3.2 If the Board's Representative agrees in accordance with Clause 49A.2 that a Service Event was caused by malicious damage by a person other than a Project Co Party, except when Clause 49A.3.3 applies, Project Co shall not Rectify the Service Event beyond what is required by Clause 49A.3.1 unless instructed by the Board to do so as an Board Change under Schedule Part 16 (*Change Protocol*).

49A.3.3 If, in the reasonable opinion of Project Co, the Service Event referred to in a Malicious Damage Report, if not Rectified, will or is likely to result in the costs of performing the Services and in particular the costs of Maintenance Works and Lifecycle Replacement being materially increased, it may notify the Board's Representative to that effect and shall be entitled to proceed with Rectification in accordance with its obligations under this Agreement.

49A.3.4 If the Board's Representative does not agree accordance with Clause 49A.2 that the Service Event referred to in a Malicious Damage Report was caused by malicious damage by a person other than a Project Co Party, Project Co shall be entitled to proceed with Rectification in accordance with its obligations under this Agreement.

49A.4 **Costs of rectifying malicious damage**

Project Co will be entitled to include all reasonable costs incurred with any Service Provider or third party:

49A.4.1 to make the Facilities safe pursuant to Clause 49A.3.1 if it is agreed by the Board or subsequently determined under the Dispute Resolution Procedure that the Service Event was caused by malicious damage by a person other than a Project Co Party; or

49A.4.2 to carry out Rectification pursuant to Clause 49A.3.3; or

49A.4.3 to carry out Rectification pursuant to Clause 49A.3.4 if it is subsequently determined under the Dispute Resolution Procedure that the Service Event was caused by malicious damage by a person other than a Project Co Party,

in a Monthly Invoice in accordance with Clause 34.2.1(c). In deciding what a reasonable cost is, regard may be had to prices and rates in the Catalogue (as defined in Schedule Part 16 (*Change Protocol*)).

49A.5 **Project Co to Provide Information**

Project Co must provide the Board with such information as the Board reasonably requests for the purpose of making claims for losses due to malicious damage, under the Operational Insurances.

49A.6 **Disputes**

Any dispute under this Clause 49A shall be determined under the Dispute Resolution Procedure.

50. TAX ON INDEMNITY PAYMENTS

If any payment by one party under an indemnity in this Agreement is subject to income tax or corporation tax (or any tax replacing them) in the hands of the recipient, the recipient may demand in writing to the party making the payment that the payment shall be increased by such amount as would ensure that, after taking into account any such tax payable in respect of such additional amount, the recipient receives and retains a net sum equal to the amount it would have otherwise received had the payment not been subject to such tax. In relation to any such additional amount payable to Project Co, Project Co and the Board shall have the same rights and obligations as would apply to a Relevant Tax Liability under Clause 46.7.3 and Clauses 46.6 to 46.11 (inclusive) shall apply mutatis mutandis to the payment of the additional amount. The party making the payment shall pay such additional amount within ten (10) Business Days of receipt of such demand.

51. EXCUSING CAUSES

51.1 If an Excusing Cause interferes adversely with, or causes or contributes to a failure of, the performance of the Project Operations by Project Co and/or causes or contributes to the occurrence of an Availability Failure and/or a Performance Failure and provided that the effect of such Excusing Cause is claimed within ten (10) Business Days of the date on which Project Co became aware (or ought reasonably to have become so aware) of the occurrence of the Excusing Cause, then (subject to Clauses 51.3 (*Insured Exposure*) and 51.4) to the extent such failure or interference or occurrence of an Availability Failure and/or a Performance Failure arises as a result of such Excusing Cause:

51.1.1 such failure by Project Co to perform or interference or occurrence, and any poor performance of, any affected Service shall not constitute a breach of the provisions of this Agreement by Project Co;

51.1.2 such failure by Project Co to perform or interference or occurrence shall be taken account of in measuring the performance of any affected Service in accordance with the Service Level Specification, which shall be operated as though the relevant Service had been performed free from such adverse interference; and

51.1.3 any such Availability Failure and/or Performance Failure shall be deemed not to have occurred,

so that Project Co shall be entitled to payment under this Agreement as if there had been no such interference with, or failure in the performance of, the Project Operations and no such occurrence of an Availability Failure and/or Performance

Failure.

51.2 For the purpose of Clause 51 (*Excusing Causes*), an Excusing Cause means:

51.2.1 any breach of any express provision of this Agreement by the Board or any Board Party (unless, and to the extent, caused or contributed to by Project Co or any Project Co Party);

51.2.2 any deliberate act or omission of the Board or any Board Party or any failure by the Board or Board Party (having regard always to the interactive nature of the activities of the Board and of Project Co) to take reasonable steps to carry out its activities in a manner which minimises undue interference with Project Co's performance of the Project Operations, save where (and to the extent):

(a) caused or contributed to by Project Co or any Project Co Party;

(b) the Board or Board Party is acting in accordance with a recommendation or instruction of Project Co or any Project Co Party;

(c) any such act or omission giving rise to such failure was within the contemplation of the parties or was otherwise provided for in this Agreement;

(d) the consequences of any such deliberate act or omission or other acts or omissions giving rise to such failure would have been prevented by the proper performance of Project Co's obligations under this Agreement; or

(e) [the same arises from an act of the Board or a Board Party compliant with the Contractor's Site Rules and other requirements of the Contractor as referred to in Clause 13.1 (*Access to Site*) or 17.9.]; or

51.2.3 the outbreak or the effects of any outbreak of any Medical Contamination unless and to the extent that the effects of such outbreak are caused (or contributed to) by any failure of Project Co or any Project Co Party to comply with procedures (or Board instructions) relating to control of infection or to take all reasonable steps to mitigate the effect of such Medical Contamination;

51.2.4 the implementation of any action taken by the Board or any Board Party, or any suspension of Project Co's obligation to deliver any or any part of the Services or the compliance by Project Co with instructions given by the Board, in each case in the circumstances referred to in Clauses 24.6 to 24.9 (inclusive);

51.2.5 the carrying out of any Low Value Change in accordance with the terms of this Agreement during the period of time agreed between the Board and Project Co; or

51.2.6 the carrying out of planned preventative maintenance in accordance with the Schedule of Programmed Maintenance and Schedule of Lifecycle Replacement; or

51.2.7 the occurrence of a Service Event that the Board's Representative has agreed pursuant to Clause 49A.3.2 or that it has been determined pursuant to the Dispute Resolution Procedure has been caused by malicious damage by a person other than a Project Co Party, but only until such time as either (i) the Board has instructed Project Co to Rectify the Service Event as an Board Change and the time period for implementation of such Board Change has expired or (ii) Project Co has Rectified the Service Event pursuant to Clause 49A.3.3.

51.2.8 Not Used.

Insured exposure

51.3 Without prejudice to Clause 53 (*Insurance*), Project Co shall not be entitled to any payment which would not have been due under this Agreement but for Clause 51 (*Excusing Causes*) to the extent that Project Co is or should be able to recover under any policy of insurance required to be maintained by Project Co or any Project Co Party in accordance with this Agreement (whether or not such insurance has in fact been effected or, if effected, has been vitiated as a result of any act or omission of Project Co (or any Project Co Party), including but not limited to non-disclosure or under insurance) or has any other policy of insurance which Project Co has taken out and maintained.

Mitigation of Excusing Cause

51.4 Project Co shall take all reasonable steps to mitigate the consequences of an Excusing Cause on Project Co's ability to perform its obligations under this Agreement. To the extent that Project Co does not take such steps, Project Co shall not be entitled to, and shall not receive, the relief specified in Clause 51.2.2

51.5 To avoid doubt, Clause 51.2.2 shall not impose a general obligation on the Board to take (or to procure that any Board Party takes) such steps and shall apply (and be construed) solely for the purpose of establishing whether an Excusing Cause has occurred.

52. NOT USED

53. INSURANCE

Project Co Insurances

53.1 Project Co shall procure that the insurances, details of which are set out in Section 1 (*Policies to be taken out by Project Co and maintained during the Design and Construction Phase*) of Schedule Part 15 (*Insurance Requirements*), are taken out prior to the commencement of the Works and are maintained for the periods specified in Section 1 (*Policies to be taken out by Project Co and maintained during the Design and Construction Phase*) of Schedule Part 15 (*Insurance Requirements*).

53.2 Project Co shall procure that the insurances, details of which are set out in Section 2 (*Policies to be taken out by Project Co and maintained from the Actual Completion Date*)) of Schedule Part 15 (*Insurance Requirements*), are taken out prior to the Actual Completion Date and are maintained for the periods specified in Section 2 (*Policies to be taken out by Project Co and maintained from the Actual Completion Date*) of Schedule Part 15 (*Insurance Requirements*).

53.3 Without prejudice to the other provisions of this Clause 53 (*Insurance*), Project Co shall, at all relevant times, at its own cost, effect and maintain in full force those insurances which it is required to effect by any applicable Law.

53.4 All Insurances referred to in Clauses 53.1and 53.2 shall:

53.4.1 be maintained in the names of the parties specified in Schedule Part 15 (*Insurance Requirements*) and shall be composite policies of insurance (and not joint) unless stated otherwise in Schedule Part 15 (*Insurance Requirements*));

53.4.2 be placed with insurers who are acceptable to the Board (such acceptance not to be unreasonably withheld or delayed);

53.4.3 in so far as they relate to damage to assets (including the Facilities), cover the same for the full reinstatement value;

53.4.4 comply with the relevant provisions of Section 1 (*Policies to be taken out by Project Co and maintained during the Design and Construction Phase*) and Section 2 (*Policies to be taken out by Project Co and maintained from the Actual Completion Date*) of Schedule Part 15 (*Insurance Requirements*).

53.4.5 provide for 30 days prior written notice of their cancellation, non–renewal or amendment to be given to the Board in accordance with Endorsement 1 in Section 3 (*Endorsement*) of Schedule Part 15 (*Insurance Requirements*);

53.4.6 in respect of the Physical Damage Policies provide for payment of any proceeds received by Project Co to be applied in accordance with Clause 53.22 (*Reinstatement*);

53.4.7 in the case of the Operational Insurances only, be taken out and maintained in accordance with Section 4 of Schedule Part 15

(*Insurance Requirements*).

53.5 Project Co shall ensure that its brokers give the Board a letter of undertaking substantially in the form set out in Section 5 (*Broker's Letter of Undertaking*) of Schedule Part 15 (*Insurance Requirements*) at Financial Close and subsequently on the renewal of each of the Insurances.

Subrogation and Vitiation

53.6 Project Co shall in respect of the insurances referred to in Clauses 53.1 and 53.2:

53.6.1 procure that all policies of insurance to be effected by it pursuant to this Clause shall contain a provision to the effect that the insurers have agreed to waive all rights of subrogation against (a) the Board (and all Board Parties other than contractors and sub-contractors; and [(b) [Consort and Consort Parties including their respective suppliers and/or sub-contractors of any tier pertaining to the RIE Project Agreement] in accordance with Endorsement 2 in Section 3 (*Endorsements*) of Schedule Part 15 (*Insurance Requirements*)][5]; and

53.6.2 provide for non-vitiation protection in respect of any claim made by the Board as co-insured in accordance with Endorsement [2] in Section 3 (*Endorsements*) of Schedule Part 15 (In*surance Requirements*);

provided that, to avoid doubt, this Clause 53.6 shall not by itself prevent Project Co from claiming against the Board (or any Board Party) under an express provision of this Agreement for any loss or damage not covered because of the level of deductibles under such insurance permitted by this Agreement or to the extent such loss or damage exceeds the maximum of such insurance required by this Agreement.

53.7 Neither party shall take any action or fail to take any reasonable action or (in so far as it is reasonably within its power) permit or allow others to take or fail to take any action (including failure to disclose any fact) as a result of which any of the Insurances may be rendered void, voidable, unenforceable or suspended or impaired in whole or in part or which may otherwise render any sum paid out under any relevant policy repayable in whole or in part.

Evidence of Project Co Insurance

53.8 Not less than twenty (20) Business Days prior to the amendment or expiry of any relevant insurance policy (other than the expiry of any of the Operational Insurances in respect of which Project Co must comply with the provisions of Section 4 of Schedule Part 15 *(Insurance Requirements)),* Project Co shall submit to the Board a request for approval from the Board of the insurer and the principal terms and conditions of such insurance policy (and any revision to such terms and conditions or change in identity of such insurer), such approval not to be

[5] Only relevant if waiver of subrogation option agreed by the Board.

unreasonably withheld or delayed.

53.9 Project Co shall provide to the Board:

53.9.1 copies on request of all insurance policies referred to in Clauses 53.1 to 53.3 (together with any other information reasonably requested by the Board relating to such insurance policies) and the Board shall be entitled to inspect them during ordinary business hours; and

53.9.2 evidence that the premiums payable under all insurance policies have been paid and that the Insurances are in full force and effect in accordance with the requirements of this Clause 53 (*Insurance*) and Schedule Part 15 (*Insurance Requirements*).

53.10 Renewal certificates or other such evidence of renewal in relation to the Insurances shall be obtained as and when necessary and copies (certified in a manner acceptable to the Board) shall be forwarded to the Board as soon as possible but in any event within 20 Business Days of the renewal date.

53.11 If Project Co defaults in insuring or continuing to maintain the Insurances, the Board may insure against any risk in respect of which such default has occurred and recover any premiums from Project Co as a debt provided that if the default occurs during the Operational Term the amount recoverable from Project Co shall be the difference between the premiums had Project Co continued to maintain the Insurances and the premiums paid by the Board to take out and maintain the Insurances.

Acceptance and compliance

53.12 The supply to the Board of any draft insurance policy or certificate of insurance or other evidence of compliance with this Clause 53 (*Insurance*) shall not imply acceptance by the Board (or the Board's Representative) that:

53.12.1 the extent of insurance cover is sufficient and its terms are satisfactory; or

53.12.2 in respect of any risks not insured against, that the same were Uninsurable.

53.13 Neither failure to comply, nor full compliance, with the insurance provisions of this Agreement shall relieve Project Co of its liabilities and obligations under this Agreement.

Uninsurable Risks

53.14

53.14.1 If a risk usually covered by contractors' 'all risks' insurance, property damage insurance, third party liability insurance, delay in start up and business interruption insurance (but not loss of profits) or statutory insurances in each case required under this Agreement becomes Uninsurable then:

(a) Project Co shall notify the Board of any risk becoming Uninsurable within five (5) Business Days of becoming aware of the same and in any event at least five (5) Business Days before expiry or cancellation of any existing insurance in respect of that risk; and

(b) if both parties agree, or it is determined in accordance with the Dispute Resolution Procedure that the risk is Uninsurable and that:

(i) the risk being Uninsurable is not caused by the actions of Project Co or any sub-contractor of Project Co (of any tier); and

(ii) Project Co has demonstrated to the Board that Project Co and a prudent board of directors of a company operating the same or substantially similar businesses in the United Kingdom to that operated by Project Co would in similar circumstances (in the absence of the type of relief envisaged by this Clause) be acting reasonably and in the best interests of the company if they resolved to cease to operate such businesses as a result of that risk becoming Uninsurable, taking into account inter alia (and without limitation) the likelihood of the Uninsurable risk occurring (if it has not already occurred), the financial consequences for such company if such Uninsurable risk did occur (or has occurred) and other mitigants against such consequences which may be available to such company

the parties shall meet to discuss the means by which the risk should be managed or shared (including considering the issue of self–insurance by either party).

53.14.2 If the requirements of Clause 53.14.1 are satisfied, but the parties cannot agree as to how to manage or share the risk, then:

(a) where such requirements are satisfied in respect of such third party liability insurance the Board shall (at the Board's option) either pay to Project Co an amount equal to the amount calculated in accordance with Section 3 (*Compensation on Termination for Force* Majeure) of Schedule Part 17 (*Compensation on Termination*) and this Agreement will terminate, or elect to allow this Agreement to continue and Clause 53.14.2(b) below shall thereafter apply

in respect of such risk; and

(b) where such requirements are satisfied in respect of contractors' 'all risks' insurance, property damage insurance, third party liability insurance (if the Board elects to allow this Agreement to continue in accordance with Clause 53.14.2(a)), delay in start up and business interruption insurance (but not loss of profits) or statutory insurances this Agreement shall continue and on the occurrence of the risk (but only for as long as such risk remains Uninsurable) the Board shall (at the Board's option) either pay to Project Co an amount equal to insurance proceeds that would have been payable had the relevant insurance continued to be available and this Agreement will continue, or an amount equal to the amount calculated in accordance with Section 3 (*Compensation on Termination for Force Majeure*) of Schedule Part 17 (*Compensation on Termination*) plus (in relation to third party liability insurance only) the amount of insurance proceeds that would have been payable whereupon this Agreement will terminate; and

(c) where pursuant to Clauses 53.14.2(a) and/or 53.14.2(b) this Agreement continues then the Annual Service Payment shall be reduced in each year for which the relevant insurance is not maintained by an amount equal to the premium paid (or which would have been paid) by Project Co in respect of the relevant risk in the year prior to it becoming Uninsurable (index linked from the date that the risk becomes Uninsurable) save to the extent that such reduction is otherwise reflected in a reduction in the payments claimed by Project Co pursuant to paragraph 3.1 of Section 6 (*Pass Through Costs*) of Schedule Part 14 (*Payment Mechanism*). Where the risk is Uninsurable for part of a year only the reduction in the Annual Service Payment shall be pro rated to the number of months for which the risk is Uninsurable;

(d) where pursuant to Clauses 53.14.2(a) and/or 53.14.2(b) this Agreement continues Project Co shall approach the insurance market at least every four months to establish whether the risk remains Uninsurable. As soon as Project Co is aware and the parties agree or it is determined pursuant to the Dispute Resolution Procedure that the risk is no longer Uninsurable, Project Co shall take out and maintain or procure the taking out and maintenance of insurance (to be incepted as soon as is reasonably practicable) for such risk in accordance with this Agreement;

(e) in respect of any period between the Board receiving notification in accordance with Clause 53.14.1(a) that a TPL Risk has become Uninsurable and the Board's notification to the Project Co in accordance with Clause 53.14.2(a) in respect of such risk then, provided it is ultimately agreed or determined that the requirements of Clause 53.14.1(b) are satisfied in respect of the Uninsurable TPL Risk and subject to Clause 53.14.2(f) below, Clause 53.14.2(b) shall apply in

respect of occurrences of the Uninsurable TPL Risk during such period unless the parties otherwise agree how to manage the risk during this period; and

(f) Clause 53.14.2(e) shall only apply provided the Project Co does not unreasonably materially delay (a) agreement and/or determination in accordance with the Dispute Resolution Procedure as to whether the requirements of Clause 53.14.1(b) are satisfied in respect of the Uninsurable TPL Risk and/or (b) meeting with the Board to discuss the means by which the risk should be managed.

Where this Clause 53.14.2 applies and this Agreement continues, Project Co shall, subject to Clause 53.14.2(c), be relieved of its obligations to maintain insurance in respect of the relevant Uninsurable Risk.

53.14.3 If, pursuant to Clause 53.14.1(b), the Board elects to make payment of compensation to Project Co (such that this Agreement will terminate)(the **"Relevant Payment"**), Project Co shall have the option (exercisable in writing within (20) Business Days of the date of such election by the Board (the **"Option Period"**)) to pay to the Board on or before the end of the Option Period, an amount equal to the insurance proceeds that would have been payable had the relevant risk not become Uninsurable, in which case this Agreement will continue (and the Relevant Payment will not be made by the Board), and Project Co's payment shall be applied for the same purpose and in the same manner as insurance proceeds would have been applied had the relevant risk not become Uninsurable.

53.14.4 During the Operational Term, the Board shall be entitled to notify Project Co that a risk has become Uninsurable under paragraph (b) of the definition of "Uninsurable". Following such notification Clauses 53.14.1(b) to 53.14.3 (except Clause 53.14.1(b)(ii)) shall apply as if Project Co has issued a notice under Clause 53.14.1(a).

53.15 Unavailability of terms

53.15.1 If, upon the renewal of any of the Insurances:

(a) any Insurance Term is not available to Project Co in the worldwide insurance market with reputable insurers of good standing; and/or

(b) the insurance premium payable for Insurance incorporating such Insurance Term is such that the Insurance Term is not generally being incorporated in insurance procured in the worldwide insurance market with reputable insurers of good standing by contractors in the United Kingdom,

(c) other than, in each case by reason of one or more actions of Project Co and/or any sub-contractor of Project Co (of any tier) then Clause 53.15.2, shall apply.

53.15.2 If it is agreed or determined that Clause 53.15.1 applies then the Board shall waive Project Co's obligations in Clauses 53.1 to 53.3 and/or Schedule Part 15 (*Insurance Requirements*) in respect of that particular Insurance Term and Project Co shall not be considered in breach of its obligations regarding the maintenance of insurance pursuant to this Agreement as a result of the failure to maintain insurance incorporating such Insurance Term for so long as the relevant circumstances described in Clause 53.15.1 continue to apply to such Insurance Term.

53.15.3 To the extent that the parties agree (acting reasonably), or it is determined pursuant to the Dispute Resolution Procedure, that an alternative or replacement term and /or condition of insurance is available to Project Co in the worldwide insurance market with reputable insurers of good standing which if included in the relevant insurance policy would fully or partially address Project Co's inability to maintain or procure the maintenance of insurance with the relevant Insurance Term, at a cost which contractors in the UK are (at such time) generally prepared to pay, Project Co shall maintain or procure the maintenance of insurance including such alternative or replacement term and/or condition.

53.15.4 Project Co shall notify the Board as soon as reasonably practicable and in any event within five (5) days of becoming aware that Clause 53.15.1(a) and/or Clause 53.15.1(b) are likely to apply or (on expiry of the relevant insurance then in place) do apply in respect of an Insurance Term (irrespective of the reason for the same). During the Operational Term the Board shall be entitled to notify Project Co that Clause 53.15.1(b) is likely to apply or (on expiry of the relevant insurance then in place) does apply in respect of an Insurance Term (irrespective of the reason for the same). Project Co shall provide the Board with such information as the Board reasonably requests regarding the unavailability of the Insurance Term and the parties shall meet to discuss the means by which such unavailability should be managed as soon as is reasonably practicable.

53.15.5 In the event that Clause 53.15.1(a) and/or Clause 15.15.1(b) apply in respect of an Insurance Term, (irrespective of the reasons for the same) Project Co shall approach the insurance market at least every four months to establish whether Clause 53.15.1(a) and/or Clause 53.15.1(b) remain applicable to the Insurance Term. As soon as Project Co is aware that Clause 53.15.1(a) and/or Clause 53.15.1(b) has ceased to apply to the Insurance Term and the parties agree or it is determined pursuant to the Dispute Resolution Procedure, Project Co shall take out and maintain or procure the taking out and maintenance of insurance (to be incepted as soon as is reasonably practicable) incorporating such Insurance Term in accordance with this Agreement.

Risk Management

53.16 With effect from the date of this Agreement, the Board and Project Co shall each designate or appoint an insurance and risk manager and notify details of the same to the other party. Such person shall:

53.16.1 be responsible for dealing with all risk management matters on behalf of its appointing or designating party including (without limitation) ensuring compliance by that party with this Clause 53.16;

53.16.2 advise and report to that party on such matters; and

53.16.3 ensure that any report or survey conducted by any insurer of any relevant procedures in relation to the Project is disclosed to the parties.

53.17 Without prejudice to the provisions of Clause 53.16, the parties shall notify one another, and in Project Co's case the relevant insurer, of any circumstances which may give rise to a claim of a value equal to or in excess of fifty thousand pounds (£50,000) (index linked) under the Insurances within five (5) Business Days of becoming aware of the same (or earlier, if so requested by the terms of the relevant insurance policy). If any insurer disputes any such claim, Project Co shall provide the Board with full details of any disputed claim and the parties shall liaise with one another to ensure that the relevant claim is preserved or pursued.

Application of Proceeds

53.18 All insurance proceeds received by Project Co under the insurances referred to in paragraph 1 (*Contractor's "All Risk" Insurance*) of Section 1 (*Insurance Requirements*) and paragraph 1 (*Property Damage Insurance*) of Section 2 (*Policies to be taken out by Project Co and Maintained from the Actual Completion Date*) of Schedule Part 15 (*Insurance Requirements*) shall be paid into the Insurance Proceeds Account and shall be applied in accordance with this Agreement and in accordance with the Insurance Proceeds Accounts Agreement.

53.19 Subject to the provisions of the Funders' Direct Agreement and Clause 53.22 *(Reinstatement)* [and Clause 53.23 *(Economic Test)*], Project Co shall apply any proceeds of any policies of Insurance:

53.19.1 in the case of third party legal liability or employers' liability insurance, in satisfaction of the claim, demand, proceeding or liability in respect of which such proceeds are payable; and

53.19.2 in the case of any other insurance other than delay in start up or business interruption insurance, so as to ensure the performance by Project Co of its obligations under this Agreement, including where necessary the reinstatement, restoration or replacement of the Facilities, assets, materials or goods affected by the event giving rise to the insurance claim and consequent payment of proceeds.

53.20 Where reinstatement monies are required to be released from the Insurance

Proceeds Account Project Co shall obtain the Board's consent in accordance with the Insurance Proceeds Account Agreement. The Board shall give its consent (or confirm that it is withholding its consent) to the release of monies from the Insurance Proceeds Account within one (1) Business Day of a request from Project Co (provided that such consent must not be unreasonably withheld).

53.21 If the proceeds of any insurance claim are insufficient to cover the settlement of such claims, Project Co will make good any deficiency forthwith.

53.22 **Reinstatement**

53.22.1 [Subject to Clause 53.23 *(Economic Test),] a*ll insurance proceeds received under any Physical Damage Policy shall be applied to repair, reinstate and replace each part or parts of the Facilities in respect of which the proceeds were received.

53.22.2 [Subject to Clause 53.23 *(Economic Test),] w*here a claim is made or proceeds of insurance are received or are receivable under any Physical Damage Policy in respect of a single event (or a series of related events) (the ("**Relevant Incident**") in an amount in excess of two hundred and fifty thousand pounds (£250,000) (Index linked) :

(a) Project Co shall deliver as soon as practicable and in any event within 28 days after the making of the claim a plan prepared by Project Co for the carrying out of the works necessary (the "**Reinstatement Works**") to repair, reinstate or replace (the "**Reinstatement Plan**") the assets which are the subject of the relevant claim or claims in accordance with Clause 53.22.2(b) below. The Reinstatement Plan shall set out:

(i) if not the Contractor, the identity of the person proposed to effect the Reinstatement Works, which shall be subject to the prior written approval of the Board; and

(ii) the proposed terms and timetable or, if not then established, the reasonably anticipated terms and timetable upon which the Reinstatement Works are to be effected (including the date that the Project will become fully operational), the final terms of which shall be subject to the prior written approval of the Board, which approval shall not be unreasonably delayed;

(b) provided that the Board is satisfied that the Reinstatement Plan will enable Project Co to comply with Clause 53.22.2(b)(iv) below within a reasonable timescale:

(i) the Reinstatement Plan will be adopted and carried out by Project Co;

(ii) Project Co shall enter into contractual arrangements to effect the Reinstatement Works with the person identified in the Reinstatement Plan approved by the Board;

(iii) prior to the earlier to occur of the Termination Date or the Expiry Date, any amounts standing to the credit of the Insurance Proceeds Account (the "**Relevant Proceeds**") (together with any interest accrued) may be withdrawn by Project Co from the Insurance Proceeds Account as required to enable it to make payments in accordance with the terms of the contractual arrangements referred to in Clause 53.22.2(b)(ii) above, and to meet any other reasonable costs and expenses of Project Co for the sole purposes of funding the Reinstatement Works and the parties shall operate the signatory requirements of the Insurance Proceeds Account in order to give effect to such payments. Following the earlier to occur of the Termination Date and the Expiry Date, the Board may withdraw amounts standing to the credit of the Insurance Proceeds Account for the purposes of funding any Reinstatement Works;

(iv) the Board agrees and undertakes that, subject to compliance by Project Co with its obligations under this Clause, and provided that Project Co procures that the Reinstatement Works are carried out and completed in accordance with the contractual arrangements referred to in Clause 53.22.2(b)(ii), it shall not exercise any right which it might otherwise have to terminate this Agreement by virtue of the event which gave rise to the claim for the Relevant Proceeds;

(v) the Board undertakes to use reasonable endeavours to assist Project Co in the carrying out of the Reinstatement Plan; and

(vi) after the Reinstatement Plan has been implemented to the reasonable satisfaction of the Board and in accordance with Clause 53.22.3 below the Board shall permit withdrawal by Project Co of any Relevant Proceeds then held in the Insurance Proceeds Account that have not been paid under Clause 53.22.2(b)(iii) above, in respect of the Relevant Incident, together with any interest accrued.

(vii) subject to the provisions of Clause 49.1 (*Project Co Indemnities to Board*) Project Co shall be solely responsible for the payment of any deficiency.

53.22.3 Where insurance proceeds are to be used, in accordance with this

Agreement, to repair, reinstate or replace any Facilities, Project Co shall carry out the work in accordance with the Board's Construction Requirements so that on completion of the work, the provisions of this Agreement are complied with.

53.22.4 If and to the extent that a breach by Project Co of its obligations under Clause 53.22.2(b) leads to a delay in the completion of the Reinstatement Works, any entitlement that Project Co has to relief under Clause 30 *(Relief Events)* shall be suspended.

[Economic Test[6]

53.23 If all of the Facilities are destroyed or substantially destroyed in a single event and the insurance proceeds (when taken together with any other funds available to Project Co) are equal to or greater than the amount required to repair or reinstate the Facilities, then Project Co shall calculate the [senior debt loan life cover ratio] as used in the Financial Model as at Financial Close (on the assumption that the Facilities are repaired or reinstated in accordance with Clause 53.22 *(Reinstatement)*).

53.24 If the calculation referred to in Clause 53.23 above shows that the [senior debt loan life cover ratio] is greater than or equal to [event of default level] then Project Co shall be subject to the procedure set out in Clause 53.22 *(Reinstatement).*

53.25 If the calculation referred to in Clause 53.23 above shows that the [senior debt loan life cover ratio] is less than [event of default level] then an amount equal to the lesser of:

53.25.1 the insurance proceeds; and

53.25.2 the Base Senior Debt Termination Amount or, if any Additional Permitted Borrowing has been advanced, the Revised Senior Debt Termination Amount,

shall be released from the Insurance Proceeds Account to Project Co.

53.26 If, pursuant to Clause 53.25 above, insurance proceeds are released from the Insurance Proceeds Account, Project Co shall be in breach of its obligations under this Agreement and shall not, pursuant to Clause 30 *(Relief Events)*, be relieved of its obligations unless it can demonstrate to the satisfaction of the Board that it can carry out the works necessary to repair, reinstate or replace the assets which are subject to the relevant claims in accordance with Clause 53.22.3 and within a reasonable timescale.

54. EXCLUSIONS AND LIMITATIONS ON LIABILITY

[6] For Bidders to propose with valid justification.

Exclusions

54.1 The indemnities under this Agreement shall not apply and (without prejudice to the Board's rights under the Payment Mechanism) there shall be no right to claim damages for breach of this Agreement, in delict or on any other basis whatsoever to the extent that any loss claimed by either party is for loss of profits, loss of use, loss of production, loss of business or loss of business opportunity or is a claim for consequential loss or for indirect loss of any nature ("**Indirect Losses**") suffered or allegedly suffered by either party but notwithstanding the foregoing any liability of the Board to indemnify Consort pursuant to the RIE Project Agreement shall not be excluded by reason of this Clause 54.1. The Board agrees that, notwithstanding the foregoing, any losses of Project Co arising under the Construction Contract and the Service Contracts as originally executed (or as amended in accordance with and subject to Clause 4.1 (*Ancillary Documents*)) which are not Indirect Losses shall not be excluded from such a claim solely by reason of this Clause 54.1.

54.2 The Board shall not be liable in delict to Project Co or any Project Co Party in respect of any negligent act or omission of the Board and/or any Board Party [and/or Consort and/or any Consort Party][7] relating to or in connection with this Agreement and Project Co shall procure that no Project Co Party shall bring such a claim against the Board. Project Co has accepted this on the basis that it and each Project Co Party will cover the risk of negligent acts or omissions by insurance or in such other manner as it (or they) may think fit.

No Double Recovery

54.3 Subject to:

54.3.1 any other express right of the Board pursuant to this Agreement; and

54.3.2 the Board's right to claim, on or after termination of this Agreement, the amount of its reasonable costs, losses, damages and expenses suffered or incurred by it as a result of rectifying or mitigating the effects of any breach of this Agreement by Project Co save to the extent that the same has already been recovered by the Board pursuant to this Agreement or has been taken into account to reduce any compensation payable by the Board pursuant to Clause 46 (*Compensation on Termination*),

the sole remedy of the Board in respect of a failure to provide the Services in accordance with this Agreement shall be the operation of the Payment Mechanism.

54.4 Subject to Clause 29 (*Board Events of Default*) and any other express right of Project Co pursuant to this Agreement, Project Co's sole remedy in respect of any breach of this Agreement which is a Compensation Event shall be pursuant to Clause 29 (*Delay Events*).

[7] Only relevant if waivers of subrogation in favour of Consort and/or Consort Parties in place.

54.5 Nothing in Clause 54.3 shall prevent or restrict the right of the Board to seek interdict or a decree of specific implement or other discretionary remedies of the court.

54.6 Notwithstanding any other provision of this Agreement, neither party shall be entitled to recover compensation or make a claim under this Agreement or any other agreement in relation to the Project in respect of any loss that it has incurred (or any failure of the other party) to the extent that it has already been compensated in respect of that loss or failure pursuant to this Agreement or otherwise.

54.7 Neither party shall have the right to terminate this Agreement for breach of contract save as expressly set out in this Agreement.

PART 12: MISCELLANEOUS

55. INTELLECTUAL PROPERTY

Project Data

55.1 Project Co shall make available to the Board free of charge (and hereby irrevocably licences the Board to use) all Project Data that might reasonably be required by the Board and Project Co shall ensure that it can make the Project Data available to the Board on these terms, for the purposes of:

55.1.1 the Board carrying out the Board Services (and its operations relating to the performance of the Board Services), its duties under this Agreement and/or any statutory duties that the Board may have; and

55.1.2 following termination of this Agreement, the design or construction of the Facilities, the operation, maintenance or improvement of the Facilities and/or the carrying out of operations the same as, or similar to, the Project Operations,

(together the "**Approved Purposes**") and in this Clause "use" shall include the acts of copying, modifying, adapting and translating the material in question and/or incorporating them with other materials and the term "the right to use" shall be construed accordingly.

Intellectual Property Rights

55.2 Project Co:

55.2.1 hereby grants to the Board, free of charge, an irrevocable, non-exclusive and transferable (but only to any assignee or transferee of any rights or benefits under this Agreement or upon or at any time following termination of this Agreement) licence (carrying the right to grant sub-licences) to use the Intellectual Property Rights which are or become vested in Project Co; and

55.2.2 shall, where any Intellectual Property Rights are or become vested in a third party, use all reasonable endeavours to procure the grant of a like licence to that referred to in Clause 55.2.1 above to the Board,

in both cases, solely for the Approved Purposes.

Project Co shall use all reasonable endeavours to ensure that any Intellectual Property Rights created, brought into existence or acquired during the term of this Agreement vest, and remain vested throughout the term of this Agreement, in Project Co and Project Co shall enter into appropriate agreements with any Project Co Party (or other third parties) that may create or bring into existence, or

from which it may acquire, any Intellectual Property Rights.

Maintenance of data

55.3 To the extent that any of the data, materials and documents referred to in this Clause are generated by or maintained on a computer or similar system, Project Co shall use all reasonable endeavours to procure for the benefit of the Board, at no charge or at the lowest reasonable fee, the grant of a licence or sub-licence for any relevant software to enable the Board or its nominee to access and otherwise use (subject to the payment by the Board of the relevant fee, if any) such data for such purposes as the Board may at its sole discretion require. As an alternative, Project Co may provide such data, materials or documents in a format which may be read by software generally available in the market at the relevant time or in hard copy format.

55.4 Project Co shall ensure the back-up and storage in safe custody of the data, materials and documents referred to in Clause 55.3 in accordance with Good Industry Practice. Without prejudice to this obligation, Project Co shall submit to the Board's Representative for approval its proposals for the back-up and storage in safe custody of such data, materials and documents and the Board shall be entitled to object if the same is not in accordance with Good Industry Practice. Project Co shall comply, and shall cause all Project Co Parties to comply, with all procedures to which the Board's Representative has given its approval. Project Co may vary its procedures for such back-up and storage subject to submitting its proposals for change to the Board's Representative, who shall be entitled to object on the basis set out above.

Claims

55.5 Where a claim or proceeding is made or brought against the Board which arises out of the infringement of any rights in or to any Intellectual Property (other than any Disclosed Data) or because the use of any materials, Plant, machinery or equipment in connection with the Project Operations infringes any rights in or to any Intellectual Property of a third party then, unless such infringement has arisen out of the use of any Intellectual Property by or on behalf of the Board otherwise than in accordance with the terms of this Agreement, Project Co shall indemnify the Board at all times from and against all such claims and proceedings and the provisions of Clause 49.3 (*Conduct of Claims*) shall apply.

56. DISPUTE RESOLUTION PROCEDURE

Except where expressly provided otherwise in this Agreement, any dispute arising out of or in connection with this Agreement shall be resolved in accordance with the procedure set out in Schedule Part 20 (*Dispute Resolution Procedure*).

57. ASSIGNATION AND SUB-CONTRACTING

Assignation

57.1 This Agreement and any other agreement in connection with the Project to which both the Board and Project Co are a party shall be binding on, and shall enure to the benefit of, Project Co and the Board and their respective statutory successors and permitted transferees and assignees. In the case of the Board, its successors shall include any person to whom the Scottish Ministers, in exercising their statutory powers to transfer property, rights and liabilities of the Board upon the Board ceasing to exist, transfers the property, rights and obligations of the Board under this Agreement and such other agreements in connection with the Project to which the Board and Project Co are both a party.

57.2 Subject to Clause 57.3, Project Co shall not, without the prior written consent of the Board, assign, novate transfer, sub-contract or otherwise dispose of any interest in this Agreement, [the Independent Tester Contract,] the Construction Contract, the Service Contracts and [any other contract] entered into by Project Co for the purposes of performing its obligations under this Agreement.[8]

57.3 The provisions of Clause 57.2 do not apply to the grant of any security, in a form approved by the Board prior to its grant (such approval not to be unreasonably withheld or delayed), for any loan made to Project Co under the Initial Funding Agreements provided that any assignee shall enter into the Funders' Direct Agreement in relation to the exercise of its rights, if the Board so requires.

57.4 The Board shall be entitled to assign, transfer or dispose of the whole of this Agreement and/or of any agreement entered into in connection with this Agreement to which the Board and Project Co are both party to:

57.4.1 the Scottish Ministers, another Health Board or any other person or body replacing any of the foregoing (or to whom the Scottish Ministers exercising their statutory rights would be entitled to transfer such benefits) covered by the National Health Service (Residual Liabilities) Act 1996; or

57.4.2 any other person or body with the prior written consent of Project Co (not to be unreasonably withheld or delayed);

provided that nothing in this Clause shall restrict the rights of the Scottish Ministers to effect a statutory transfer.

Sub-contractors

57.5 Project Co shall, without prejudice to Clause 57.1, procure that none of the persons listed below shall sub-contract all (or substantially all) of their obligations under or in the agreement set out next to its name:

Person	**Contract**
Contractor	Construction Contract

[8] Bidders to complete.

without, in each case, the prior written consent of the Board (such consent not to be unreasonably withheld or delayed). To avoid doubt, (i) any failure to comply with Clause 57.7 shall be a reasonable ground for withholding consent and (ii) consent shall, without prejudice to the other provisions of Clause 57.5, not be required in respect of the appointment of any party currently approved by the Board as a suitable replacement.

57.6 If the contract set out next to the name of any person referred to in Clause 57.5 shall at any time lapse, terminate or otherwise cease to be in full force and effect (whether by reason of expiry or otherwise), with the effect that such person shall cease to act in relation to the Project, Project Co shall forthwith appoint a replacement (subject to compliance with Clause 57.5).

57.7 Project Co shall procure that any replacement for any person referred to in Clause 57.5 [or any Key Sub-Contractor] shall enter into a contract upon the same or substantially similar terms as the person so replaced and shall also enter into a collateral agreement on the same or substantially the same terms as the Collateral Agreement entered into by the person so replaced.[9]

57.8 Where Project Co enters into a contract with a sub-contractor for the purposes of carrying out the Project Operations or any part of the Project Operations under this Agreement, Project Co shall cause a term to be included in such contract:

57.8.1 which requires payment to be made to the sub-contractor within a specified period not exceeding thirty (30) days from receipt of a valid invoice as defined by the contract requirements and in the case of the provision of Services provides that, for the purpose of payment alone, where the Board has made payment to Project Co and the sub-contractor's invoice includes Project Operations in relation to which payment has been made by the Board then, to the extent that it relates to such Project Operations, the invoice shall be treated as valid and payment shall be made to the sub-contractor without deduction (but without prejudice to any right to deduct or set off validly arising under the terms of the contract with the sub-contractor); and

57.8.2 which notifies the sub-contractor that the contract forms part of a larger contract for the benefit of the Board and that should the sub-contractor have any difficulty in securing the timely payment of an invoice that matter may be referred by the sub-contractor to the Board's Representative; and

57.8.3 in the same terms as this Clause 57.8 (including for the avoidance of doubt this Clause 57.8.3) subject only to modification to refer to the correct designation of the equivalent party as the supplier and recipient of the relevant Project Operations as the case may be.

Replacement of a non-performing Sub-Contractor

[9] Bidders to complete.

57.9 On the substitution or replacement of a Service Provider due to a breach or default under a Service Contract, Project Co may elect, subject to Clause 57.11 and provided that at the time of making such election no notice of termination has been served under this Agreement, that for the purposes of Clause 40.1.8 (*Deductions*) and Clause 40.1.9 (*Warning Notices*) only, all Deductions incurred and Warning Notices served prior to the date of such substitution or replacement shall be disregarded by virtue of Clause 57.10 below.

57.10 If Project Co makes an election pursuant to Clause 57.9 above then, with effect from the date of substitution or replacement of the Service Provider, all Deductions incurred and Warning Notices served prior to that date shall be disregarded for the purposes of Clause 40.1.8 (*Deductions*) and Clause 40.1.9 (*Warning Notices*). For the avoidance of doubt, the Board shall retain the right to make Deductions in accordance with Schedule Part 14 (*Payment Mechanism*) in respect of the Availability Failures and/or Performance Failures to which the Deductions and/or Warning Notices are attributable.

57.11 Project Co shall be entitled to make an election pursuant to Clause 57.9 on a maximum of two occasions during the Project Term.

58. OWNERSHIP INFORMATION AND CHANGES IN CONTROL

58.1 Project Co represents and warrants to the Board that at the date of this Agreement the legal and beneficial ownership of Project Co is as set out in Schedule Part 21 (*Project Co Information*) and that, [other than any Shareholder pre-emption rights,] no arrangements are in place that have or may have or result in any sale, transfer or disposal of any legal, beneficial, equitable or other interest in any or all of the shares in Project Co.[10]

58.2 Project Co shall inform the Board as soon as reasonably practicable (and in any event, within thirty (30) days) of any Change in Control occurring in respect of Project Co.

58.3 The Board may, not more than twelve (12) times in any Contract Year, or any time when a Project Co Event of Default is outstanding, require Project Co to inform it, as soon as reasonably practicable and in any event within thirty (30) days of receipt of the Board's request for details, of any Change in Control in respect of Project Co.

58.4 Project Co's obligations under Clauses 58.1 and 58.2 above shall, except where a legal transfer of shares has occurred be limited to the extent of Project Co's awareness having made all reasonable enquiry.

58.5 Subject to Clause 58.6, prior to the expiry of a period of twelve (12) months commencing on the Actual Completion Date, no Change in Control in any or all of the shares in Project Co shall be permitted without the prior written approval of the Board. Any Change in Control arising as a consequence of either:

[10] Bidders to complete.

58.5.1 the grant or enforcement of security in favour of the Senior Funders over or in relation to any of the shares of the Project Co, provided that any document conferring security over any shares has been approved by the Board (such approval not to be unreasonably withheld or delayed); or

58.5.2. any transfer by a Shareholder to an [Associate] of such transferor;[11]

shall be disregarded for the purpose of this Clause 58.5 above.

Where Clause 58.5.2 applies and subsequent to any such transfer (the **"Original Transfer"**) the transferee ceases to be an [Associate] of the original transferor, it shall be a breach of this Clause 58.5 if the shares or interests which were the subject of the Original Transfer are not [within 20 Business Days] of the transferee ceasing to be an Associate of the original transferor, transferred to the original transferor or any Associate of such transferor.

58.6 No Change in Control (at any time) in any or all of the shares in Project Co (or any company (other than a public quoted company whose equity securities are listed on a recognised investment exchange, as defined in section 285 of the Financial Services and Markets Act 2000) holding shares in Hold Co, Project Co or in any company (or its shareholders) holding shares in such a company (or its shareholders)) shall be permitted without the prior written approval of the Board where the person acquiring control is a Restricted Person.

59. MITIGATION

Each of the Board and Project Co shall at all times take all reasonable steps to minimise and mitigate any loss for which the relevant party is entitled to bring a claim against the other party pursuant to this Agreement.

60. DATA PROTECTION

Data Protection

60.1 For the purpose of the following Clauses, the term "personal data" shall have the meaning given to it in the Data Protection Act 1998.

60.2 Project Co undertakes to the Board that it shall comply with the obligations of a "data controller" under the provisions of the Seventh Data Protection Principle as set out in Schedule 1 of the Data Protection Act 1998. In addition, Project Co:

60.1.1 warrants that it has, or will have at all material times, (and it shall use best endeavours to procure that all Sub-Contractors (and their agents and sub contractors of any tier have or will have at all material times) the appropriate technical and organisational measures in place

[11] Bidders to complete.

against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data held or processed by it and that it has taken, or will take at all material times, all reasonable steps to ensure the reliability of any of its staff which will have access to personal data processed as part of the Project Operations;

60.2.2 undertakes that it will act only on the instructions of the Board in relation to the processing of any personal data made available by or on behalf of the Board as part of the Project Operations;

60.2.3 undertakes that it will only obtain, hold, process, use, store and disclose personal data as is necessary to perform its obligations under this Agreement and (without prejudice to Clause 5.2 (*General standards*)) that such data will be held, processed, used, stored and disclosed only in accordance with the Data Protection Act 1998 and any other applicable Law; and

60.2.4 undertakes to allow the Board access to any relevant premises on reasonable notice to inspect its procedures described at Clause 60.2.1 above.

61. CONFIDENTIALITY

61.1 The Board shall, subject to Clause 61.2 be entitled to make the documents and information listed in this Clause 61.1 freely available to the public (which may include, without limitation, publication on the Board's website):

61.1.1 this Agreement;

61.1.2 the Independent Tester Contract;

61.1.3 the Collateral Agreements;

61.1.4 the payment and performance report;

61.1.5 the Financial Model (as updated from time to time in accordance with this Agreement); and

61.1.6 Schedule of Lifecycle Replacement; and

61.1.7 [project specifics]

and Project Co acknowledges and agrees that, subject to the exclusion of information referred to in Clause 61.2.2, the provision or publication of the documents and information listed in this Clause 61.1 shall not give rise to any

liability under the terms of this Agreement or otherwise. The Board shall notify Project Co in writing not less than ten (10) Business Days prior to any intended provision or publication of information pursuant to this Clause 61.1.

61.2

61.2.1 The parties agree that the provisions of this Agreement and each Ancillary Document shall, subject to Clause 61.2.2 below, not be treated as Confidential Information and may be disclosed without restriction and Project Co acknowledges that the Board shall, subject to Clause 61.2.2 below, be entitled to make this Agreement and each Ancillary Document available in the public domain.

61.2.2 Clause 61.2.1 above shall not apply to provisions of this Agreement or an Ancillary Document designated as Commercially Sensitive Information and listed in Schedule Part 26 (*Commercially Sensitive Information*)] to this Agreement which shall, subject to Clause 61.3 be kept confidential for the periods specified in that Schedule Part 26 (*Commercially Sensitive Information*).

61.2.3 The parties shall keep confidential all Confidential Information received by one party from the other party relating to this Agreement and Ancillary Documents or the Project and shall use all reasonable endeavours to prevent their employees and agents from making any disclosure to any person of any such Confidential Information.

Permitted Disclosure

61.3 Clauses 61.2.2 and 61.2.3 shall not apply to:

61.3.1 any disclosure of information that is reasonably required by any person engaged in the performance of their obligations under this Agreement for the performance of those obligations;

61.3.2 any matter which a party can demonstrate is already or becomes generally available and in the public domain otherwise than as a result of a breach of this Clause;

61.3.3 any disclosure to enable a determination to be made under Schedule Part 20 (*Dispute Resolution Procedure*) or in connection with a dispute between Project Co and any of its subcontractors;

61.3.4 any disclosure which is required pursuant to any Law or Parliamentary obligation placed upon the party making the disclosure or the rules of any stock exchange or governmental or regulatory authority having the force of law or, if not having the force of law, compliance with which is in accordance with the general practice of persons subject to the stock exchange or governmental or regulatory authority concerned;

61.3.5 any disclosure of information which is already lawfully in the possession of the receiving party, prior to its disclosure by the disclosing party;

61.3.6 any provision of information to the parties' own professional advisers or insurance advisers or to the Senior Funders or the Senior Funders' professional advisers or insurance advisers or, where it is proposed that a person should or may provide funds (whether directly or indirectly and whether by loan, equity participation or otherwise) to Project Co to enable it to carry out its obligations under this Agreement, or may wish to acquire shares in Project Co [and/or Hold Co] in accordance with the provisions of this Agreement to that person or their respective professional advisers but only to the extent reasonably necessary to enable a decision to be taken on the proposal;[12]

61.3.7 any disclosure by the Board of information relating to the design, construction, operation and maintenance of the Project and such other information as may be reasonably required for the purpose of conducting a due diligence exercise, to any proposed new contractor, its advisers and lenders, should the Board decide to retender this Agreement; or

61.3.8 any registration or recording of the Consents and property registration required;

61.3.9 any disclosure of information by the Board to any other department, office or agency of the Government or their respective advisers or to the Scottish Futures Trust or to any person engaged in providing services to the Board for any purpose related to or ancillary to this Agreement;

61.3.10 any disclosure for the purpose of:

(a) the examination and certification of the Board's or Project Co's accounts;

(b) any examination pursuant to section 6(1) of the National Audit Act 1983 of the economy, efficiency and effectiveness with which the Board has used its resources;

(c) complying with a proper request from either party's insurance adviser, or insurer on placing or renewing any insurance policies; or

(d) (without prejudice to the generality of Clause 61.3.4) compliance with the FOI(S)A and/or the Environmental Information (Scotland) Regulations;

[12] Bidders to complete.

61.3.11 disclosure pursuant to Clause 61.1; or

61.3.12 disclosure to the extent required pursuant to Clause 63.2;

provided that, to avoid doubt, neither Clause 61.3.10(d) nor Clause 61.3.4 above shall permit disclosure of Confidential Information otherwise prohibited by Clause 61.2.3 where that information is exempt from disclosure under section 36 of the FOI(S)A.

61.4 Where disclosure is permitted under Clause 61.3, other than under Clauses 61.3.2, 61.3.4, 61.3.5, 61.3.8 and 61.3.10, the party providing the information shall procure that the recipient of the information shall be subject to the same obligation of confidentiality as that contained in this Agreement.

61.5 Project Co shall not make use of this Agreement or any information issued or provided by or on behalf of the Board in connection with this Agreement otherwise than for the purpose of this Agreement, except with the written consent of the Board.

61.6 Where Project Co, in carrying out its obligations under this Agreement, is provided with information relating to any Board Party, Project Co shall not disclose or make use of any such information otherwise than for the purpose for which it was provided, unless Project Co has obtained the prior written consent of that person and has obtained the prior written consent of the Board.

61.7 On or before the Expiry Date, Project Co shall ensure that all documents or computer records in its possession, custody or control, which contain information relating to any patient or Board Party including any documents in the possession, custody or control of a Sub-Contractor, are delivered up to the Board.

61.8 The parties acknowledge that Audit Scotland has the right to publish details of this Agreement (including Commercially Sensitive Information) in its relevant reports to Parliament.

61.9 The provisions of this Clause 61 *(Confidentiality)* are without prejudice to the application of the Official Secrets Acts 1911 to 1989.

Announcements

61.10 Unless otherwise required by any Law or any regulatory or governmental authority (but only to that extent), neither party shall make or permit or procure to be made any public announcement or disclosure (whether for publication in the press, the radio, television screen or any other medium) of any Confidential Information or in the case of Project Co of its (or any Project Co Party's) interest in the Project or, in any such case, any matters relating thereto, without the prior written consent of the other party (which shall not be unreasonably withheld or delayed).

62. FREEDOM OF INFORMATION

62.1 Project Co acknowledges that the Board is subject to the requirements of the FOI(S)A and the Environmental Information (Scotland) Regulations and shall assist and cooperate with the Board to facilitate the Board's compliance with its Information disclosure requirements pursuant to the same in the manner provided for in Clauses 62.2 to62.8.

62.2 Where the Board receives a Request for Information in relation to Information that Project Co is holding on its behalf and which the Board does not hold itself the Board shall refer to Project Co such Request for Information as soon as practicable and in any event within five (5) Business Days of receiving such Request for Information and Project Co shall:

62.2.1 provide the Board with a copy of all such Information in the form that the Board requires as soon as practicable and in any event within five (5) Business Days (or such other period as the Board acting reasonably may specify) of the Board's request; and

62.2.2 provide all necessary assistance as reasonably requested by the Board in connection with any such Information, to enable the Board to respond to the Request for Information within the time for compliance set out in section 10 of the FOI(S)A or Regulation 5 of the Environmental Information (Scotland) Regulations.

62.3 Following notification under Clause 62.2, and up until such time as Project Co has provided the Board with all the Information specified in Clause 62.2.1, Project Co may make representations to the Board as to whether or not or on what basis Information requested should be disclosed, and whether further information should reasonably be provided in order to identify and locate the information requested, provided always that the Board shall be responsible for determining at its absolute discretion:

62.3.1 whether Information is exempt from disclosure under the FOI(S)A and the Environmental Information (Scotland) Regulations;

62.3.2 whether Information is to be disclosed in response to a Request for Information, and

in no event shall Project Co respond directly, or allow its Sub-Contractors to respond directly, to a Request for Information unless expressly authorised to do so by the Board.

62.4 Project Co shall ensure that all Information held on behalf of the Board is retained for disclosure for the remainder of the Project Term plus an additional seven (7) years, and shall permit the Board to inspect such Information as requested from time to time.

62.5 Project Co shall transfer to the Board any Request for Information received by Project Co as soon as practicable and in any event within two (2) Business Days of receiving it.

62.6 Project Co acknowledges that any lists provided by it listing or outlining Confidential Information are of indicative value only and that the Board may nevertheless be obliged to disclose Confidential Information in accordance with the requirements of FOI(S)A and the Environmental (Scotland) Regulations.

62.7 In the event of a request from the Board pursuant to Clause 62.2 Project Co shall as soon as practicable, and in any event within five (5) Business Days of receipt of such request, inform the Board of Project Co's estimated costs of complying with the request to the extent these would be recoverable, if incurred by the Board, under section 13(1) of the FOI(S)A and the Fees Regulations. Where such costs (either on their own or in conjunction with the Board's own such costs in respect of such Request for Information) will exceed the appropriate limit referred to in section 12(1) of the FOI(S)A and as set out in the Fees Regulations (the **"Appropriate Limit"**) the Board shall inform Project Co in writing whether or not it still requires Project Co to comply with the request and where it does require Project Co to comply with the request the ten (10) Business Days period for compliance shall be extended by such number of additional days for compliance as the Board is entitled to under section 10 of the FOI(S)A. In such case, the Board shall notify Project Co of such additional days as soon as practicable after becoming aware of them and shall reimburse Project Co for such costs as Project Co incurs in complying with the request to the extent it is itself entitled to reimbursement of such costs in accordance with its own FOI(S)A policy from time to time.

62.8 Project Co acknowledges that (notwithstanding the provisions of Clause 61 (*Confidentiality*)) the Board may, acting in accordance with the Scottish Ministers Code of Practice on the Discharge of Functions of Public Authorities under Part 6 of the Freedom of Information (Scotland) Act 2002 (the "**Code**"), and/or having full regard to any guidance or briefings issued by the Scottish Information Commissioner or the Scottish Ministers, be obliged under the FOI(S)A, or the Environmental Information (Scotland) Regulations to disclose Information concerning Project Co or the Project:

62.8.1 in certain circumstances without consulting with Project Co; or

62.8.2 following consultation with Project Co and having taken their views into account,

provided always that where Clause 62.8.1 above applies the Board shall, in accordance with the recommendations of the Code, draw this to the attention of Project Co prior to any disclosure.

62.9 In the event that the Project Co is or becomes subject to Environmental Information (Scotland) Regulations or FOI(S)A it shall comply with its obligations under Environmental Information (Scotland) Regulations and FOI(S)A. In doing so, it will use reasonable endeavours to consult the Board before disclosing Information about them or any agreement entered into between the Board and Project Co.

63. INFORMATION AND AUDIT ACCESS

63.1 Project Co shall provide to the Board's Representative all information, documents, records and the like in the possession of, or available to, Project Co (and to this end Project Co shall use all reasonable endeavours to procure that all such items in the possession of the Contractor or any Service Providers shall be available to it and Project Co has included, or shall include, relevant terms in all contracts with the Contractor or any Service Providers to this effect) as may be reasonably requested by the Board's Representative for any purpose in connection with this Agreement.

63.2 For the purpose of:

63.2.1 the examination and certification of the Board's accounts; or

63.2.2 any examination pursuant to section 23 of the Public Finance and Accountability (Scotland) Act 2000 of the economy, efficiency and effectiveness with which the Board has used its resources,

the Auditor General for Scotland may examine such documents as he may reasonably require which are owned, held or otherwise within the control of Project Co (and Project Co shall procure that any person acting on its behalf who has such documents and/or other information shall also provide access) and may require Project Co to produce such oral or written explanations as he considers necessary.

63.3. Project Co shall provide and shall procure that its Sub-Contractors shall provide such information as the Board may reasonably require from time to time to enable it to meet its obligations to provide reports and returns pursuant to regulations, directions or guidance applicable to the Board including, without limitation, reports and returns regarding the physical condition of buildings occupied by the Board, health and safety, under the firecode, relating to environmental health and to comply with requirements for the provision of information relating to achievement of customer service targets.

64. NOTICES

64.1 All notices under this Agreement shall be in writing and all certificates, notices or written instructions to be given under the terms of this Agreement shall be served by sending the same by first class post, or by hand, leaving the same at:

If to Project Co Address:

If to the Board Address:

64.2 Where any information or documentation is to be provided or submitted to the Board's Representative or the Project Co Representative it shall be provided or submitted by sending the same by first class post, or by hand, leaving the same at:

If to Project Co's Representative Address:

If to the Board's Representative Address:

(copied in each case to the Board)

64.3 Either party to this Agreement (and either Representative) may change its nominated address by prior notice to the other party.

64.4 Notices given by post shall be effective upon the earlier of (i) actual receipt, and (ii) five (5) Business Days after mailing. Notices delivered by hand shall be effective upon delivery.

65. NO WAIVER

65.1 Any relaxation, forbearance, indulgence or delay (together "**indulgence**") of any party in exercising any right shall not be construed as a waiver of the right and shall not affect the ability of that party subsequently to exercise that right or to pursue any remedy, nor shall any indulgence constitute a waiver of any other right (whether against that party or any other person).

Continued effect – no waiver

65.2 Notwithstanding any breach of this Agreement by either party, and without prejudice to any other rights which the other party may have in relation to it, the other party may elect to continue to treat this Agreement as being in full force and effect and to enforce its rights under this Agreement. The failure of either party to exercise any right under this Agreement, including any right to terminate this Agreement and any right to claim damages, shall not be deemed a waiver of such right for any continuing or subsequent breach.

66. NO AGENCY

66.1 Nothing in this Agreement shall be construed as creating a partnership or as a contract of employment between the Board and Project Co.66.2 Save as expressly provided otherwise in this Agreement, Project Co shall not be, or be deemed to be, an agent of the Board and Project Co shall not hold itself out as having authority or power to bind the Board in any way.

66.3 Without limitation to its actual knowledge, Project Co shall for all purposes of this Agreement, be deemed to have such knowledge in respect of the Project as is held (or ought reasonably to be held) by any Project Co Party.

67. ENTIRE AGREEMENT

67.1 Except where expressly provided otherwise in this Agreement, this Agreement

constitutes the entire agreement between the parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings concerning the subject matter of this Agreement.

67.2 Each of the parties acknowledges that:

67.2.1 it does not enter into this Agreement on the basis of and does not rely, and has not relied, upon any statement or representation (whether negligent or innocent) or warranty or other provision (in any case whether oral, written, express or implied) made or agreed to by any person (whether a party to this Agreement or not) except those expressly repeated or referred to in this Agreement and the only remedy or remedies available in respect of any misrepresentation or untrue statement made to it shall be any remedy available under this Agreement; and

67.2.2 this Clause shall not apply to any statement, representation or warranty made fraudulently, or to any provision of this Agreement which was induced by fraud, for which the remedies available shall be all those available under the law governing this Agreement.

68. THIRD PARTY RIGHTS

Save to the extent expressly provided in this Agreement and, to avoid doubt, without prejudice to the terms of the Funders' Direct Agreement or the rights of any permitted successor to the rights of Project Co or of any permitted assignee, it is expressly declared that no rights shall be conferred under and arising out of this Agreement upon any person other than the Board and Project Co and without prejudice to the generality of the foregoing, there shall not be created by this Agreement a *jus quaesitum tertio* in favour of any person whatsoever.

69. SEVERABILITY

If any provision of this Agreement shall be declared invalid, unenforceable or illegal by the courts of any jurisdiction to which it is subject, such provision may be severed and such invalidity, unenforceability or illegality shall not prejudice or affect the validity, enforceability and legality of the remaining provisions of this Agreement.

70. CONFLICTS OF AGREEMENTS

In the event of any conflict between this Agreement and the Project Documents, the provisions of this Agreement shall prevail.

71. COSTS AND EXPENSES

Each party shall be responsible for paying its own costs and expenses incurred in connection with the negotiation, preparation and execution of this Agreement.

72. FURTHER ASSURANCE

Each party shall do all things and execute all further documents necessary to give full effect to this Agreement.

73. COMMUNITY BENEFITS

73.1 Project Co shall comply with the Board's Community Benefits Requirements set out in [the Board's Construction Requirements and Service Level Specification] in accordance with Project Co's Community Benefits Method Statements set out in [ ][13].

73.2 If, in relation to the Works, Project Co does not:

73.2.1 [insert target][14]

then Project Co shall pay to the Board the sum of [*insert amount*][15] (index linked);

73.2.2 [*insert target*][16]

then Project Co shall pay to the Board the sum of [*insert amount*] (index linked);

73.2.3 [*insert target*][17]

then Project Co shall pay to the Board the sum of [*insert amount*][18] (index linked);

73.2.4 provide the [quarterly / annual] information in accordance with [ ][19]

then on the occurrence of each such failure Project Co shall pay to the Board the sum of [*insert amount*][20] (index linked),

provided that in each case the Board has first served notice on Project Co notifying it of its non-compliance and Project Co has failed to rectify such non-compliance within twenty (20) Business Days of such notice.

73.3 The Board's sole and exclusive remedy in respect of a breach of Clause 73.2 above shall be the payments provided for in Clause 73.2 [and Project Co's

[13] Bidders to complete.
[14] Bid Back Item: Bidders to bid back.
[15] Bid Back Item: Bidders to bid back.
[16] Bid Back Item: Bidders to bid back.
[17] Bid Back Item: Bidders to bid back.
[18] Bid Back Item: Bidders to bid back.
[19] Bid Back Item: Bidders to complete.
[20] Bid Back Item: Bidders to bid back.

maximum liability in this respect shall be [*insert amount*][21] (index linked)].

73.4 If, in relation to the Services, Project Co does not:

73.4.1 [insert target][22]

then Project Co shall pay to the Board the sum of [insert amount][23] (index linked);

73.4.2 [insert target][24]

then Project Co shall pay to the Board the sum of [insert amount][25] (index linked);

73.4.3 [insert target][26]

then Project Co shall pay to the Board the sum of [insert amount][27] (index linked);

73.4.4 provide the [quarterly / annual] information in accordance with [ ] then on the occurrence of each such failure Project Co shall pay to the Board the sum of [*insert amount*][28] (index linked),

provided that in each case the Board has first served notice on Project Co notifying it of its non-compliance and Project Co has failed to rectify such non-compliance within [twenty] Business Days of such notice.

73.5 The Board's sole and exclusive remedy in respect of a breach of Clause 73.4 shall be the payments provided for in Clause 73.4 [and Project Co's maximum liability in this respect shall be [*insert amount*][29] (index linked)].

73.6 All payments due by Project Co to the Board under this Clause shall be payable within [ ][30] Business Days of written demand.

74. GOVERNING LAW AND JURISDICTION

74.1 This Agreement shall be considered as a contract made in Scotland and shall be subject to the laws of Scotland.

[21] Bid Back Item: Bidders to bid back.
[22] Bid Back Item: Bidders to bid back.
[23] Bid Back Item: Bidders to bid back.
[24] Bid Back Item: Bidders to bid back.
[25] Bid Back Item: Bidders to bid back.
[26] Bid Back Item: Bidders to bid back.
[27] Bid Back Item: Bidders to bid back.
[28] Bid Back Item: Bidders to bid back.
[29] Bid Back Item: Bidders to bid back.
[30] Bid Back Item: Bidders to bid back.

74.2 Subject to the provisions of the Dispute Resolution Procedure, both parties agree that the courts of Scotland shall have exclusive jurisdiction to hear and settle any action, suit, proceeding or dispute in connection with this Agreement and irrevocably submit to the jurisdiction of those courts.

IN WITNESS WHEREOF these presents typewritten on this and the preceding [ ] pages together with the Schedule in [ ] Parts are executed by the parties hereto as follows:

SCHEDULES

SCHEDULE PART 1

DEFINITIONS AND INTERPRETATION

SECTION 1

In this Agreement unless the context otherwise requires:

"217 Old Dalkeith Road"	means that area forming 217 Old Dalkeith Road shown outlined in red on Plan 9;
"5 Year Maintenance Plan"	means the plan, to be prepared by or on behalf of Project Co, for any works for the maintenance or repair of the Facilities, including the renewal or replacement of plant or equipment as necessary, during each rolling five year period for the duration of the Project Term;
"Access Areas"	means the Orange Area, the Yellow Area and the Substation Access Area;
"Access Roads"	means the access roads and footpaths shown coloured orange and yellow on Plan 8;
"Access Roads (Future)"	means the access roads and footpaths leading from Old Dalkeith Road, Edinburgh as shown shaded yellow, blue and pink/hatched black (for the avoidance of doubt, excluding the section of road shaded pink but unhatched) Plan 6 or such alternative access roads and footpaths from Old Dalkeith Road, Edinburgh, as approved by the local planning authority and roads authority to be constructed on the Campus Site in substitution for the foregoing access roads and footpaths;
"Access Strategy"	means the agreed proposal for access to the Access Areas in Appendix F of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement) and/or any proposal for access to the Access Areas agreed or determined pursuant to paragraph 1 of Section 2 *(Access Areas and Amended Drainage Proposals)* of Part 2 *(Interface Proposals Procedure)* of Appendix A of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Actual Commissioning End Date"	means the date specified in the Commissioning Completion Certificate issued by the Independent Tester pursuant to Clause 18.4;

"Actual Completion Date" means the later of:

(a) the date stated in the Certificate of Practical Completion issued by the Independent Tester pursuant to Clause 17.12; and

(b) subject to Clause 14.5, the Completion Date;

"Actual Liability" has the meaning given in Clause 46.7.3;

"Additional Oversail Strategy" as defined in paragraph 1 of Section 1 *(Oversail)* of Part 2 *(Interface Proposals Procedure)* of Appendix A of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);

"Additional Permitted Borrowing" means on any date, the amount equal to any amount of principal outstanding under the Senior Funding Agreements (as the same may from time to time be amended, whether or not with the approval of the Board) in excess of the amount of principal scheduled under the Senior Funding Agreements at Financial Close to be outstanding at that date,

but only to the extent that:

(a) this amount is less than or equal to the Additional Permitted Borrowings Limit; and

(b) in respect of any Additional Permitted Borrowing the Agent is not in material breach of its obligations under clause 9.4.3 of the Funders' Direct Agreement as it applies to such Additional Permitted Borrowing,

and provided further that any such excess amount of principal which is:

(i) invested as part of any Qualifying Change; or

(ii) outstanding from time to time as a result of any drawing under the Senior Funding Agreements as entered into at the date of this Agreement, disregarding any subsequent amendment; or

(iii) outstanding from time to time as a result of any amendment to the Senior Funding Agreements in respect of which the Board has agreed that its liabilities on a termination may be increased pursuant to Clause 4.3 shall not be counted as

Additional Permitted Borrowing;

"Additional Permitted Borrowings Limit" means an amount equal to:

(a) 10% of the Original Senior Commitment, for any Additional Permitted Borrowing subsisting in the period from the date of Financial Close to the date on which the amount outstanding under the Senior Funding Agreements is reduced to 50% or less of the Original Senior Commitment; and thereafter

(b) the higher of:

(i) 5% of the Original Senior Commitment; and

(ii) the amount of any Additional Permitted Borrowing outstanding on the last day of the period referred to in paragraph (a);

"Adjudicator" has the meaning given in paragraph 4.1 of Schedule Part 20 (*Dispute Resolution Procedure*);

"Adverse Law" means any Change in Law which would if passed into Law have the following effects, and any administrative act of the Government or any minister of the Crown, department, agency, regulator or other public body or official not amounting to a Change in Law but which has (or would, if made, have) the following effects:

(a) remove, transfer to another party or otherwise have a material adverse effect upon the Board's legal capacity (or obligation) to perform any of its material obligations in relation to the Project which are material to the interests of Project Co and/or its Funders; or

(b) amend or repeal (without re-enactment, consolidation or replacement by Law having an equivalent effect) the National Health Service (Residual Liabilities) Act 1996 or the National Health Service (Private Finance) Act 1997;

provided that,

(i) in the circumstances referred to in paragraph (a), where a Change in Law would have the effect of

transferring the legal capacity or obligation of the Board in relation to such material obligations to a new entity (a "**Board Substitute**"), the relevant Law shall not be an Adverse Law if:

(aa) either:

(i) the provisions of the National Health Service (Residual Liabilities) Act 1996 and the National Health Service (Private Finance) Act 1997 (together the "**Protective Legislation**") apply to such Board Substitute in full (as applied to the Board as at the date of this Agreement); or

(ii) the relevant Law has the same effect in relation to the Board Substitute as the Protective Legislation; and

(bb) the relevant Law does not otherwise have any adverse material effect on the legal capacity or obligation of the Board Substitute which affects (or could reasonably be expected to affect) the Board Substitute's ability to perform any material obligations owed to Project Co and/or the Funders in relation to the Project which are material to the interests of Project Co and/or its Funders, when compared to the material obligations of the Board under this Agreement;

"Affiliate" means, in relation to any person, any holding company or subsidiary of that person or any subsidiary of such holding company, and "**holding company**" and "**subsidiary**" shall have the meaning given to them in section 1159 of the Companies Act 2006;

"Agent" has the meaning given in the Funders' Direct Agreement;

"Agreed Order of Priorities" has the meaning given in the Articles of Association;

"Amended Drainage Proposal"	as defined in paragraph 2.1 of Section 2 *(Access Areas and Amended Drainage Proposal*) of Part 2 *(Interface Proposals Procedure)* of Appendix A of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Amended Service Proposal"	as defined in paragraph 1.1 of Section 3 *(Amended Service Proposal)* of Part 2 *(Interface Proposals Procedure)* of Appendix A of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Ancillary Documents"	means the Construction Contract, the Service Contracts and the Performance Guarantees [and [TO BE FINALISED DURING DIALOGUE]], all as the same may be amended or replaced from time to time;
"Ancillary Rights"	means such rights as set out in Section 3 (*Ancillary Rights*) of Schedule Part 5 (*Land Matters*);
"Annual Service Payment"	has the meaning given in Schedule Part 14 (*Payment Mechanism*);
"Approved RDD Item"	means an item of Reviewable Design Data which has been returned or has been deemed to have been returned endorsed either "Level A – no comment" or "Level B – proceed subject to amendment as noted" by the Board's Representative pursuant to the provisions of Clause 12 (*Design, Construction and Commissioning Process*) and Schedule Part 8 (*Review Procedure*) (provided that in the case of any item of Reviewable Design Data which has been returned or has been deemed to have been returned endorsed "Level B – proceed subject to amendment as noted" Project Co has taken account of the Board's Representative's comments), as such item of Reviewable Design Data may be varied or amended from time to time in accordance with Schedule Part 16 (*Change Protocol*);
"Articles of Association"	means Project Co's articles of association, and the term "**Articles**" shall be construed accordingly;
"As Built Energy Model"	means Project Co's Financial Close Energy Model updated to incorporate all as built construction, commissioning and testing information and any Board agreed design amendments, as agreed with the Board prior to the Commissioning End Date;

"Associated Companies"	means, in respect of a relevant company, a company which is a Subsidiary, a Holding Company or a company that is a Subsidiary of the ultimate Holding Company of that relevant company, and in the case of Project Co shall include [Hold Co] and each of the Shareholders, and the term "**Associate**" shall be interpreted accordingly;
"Availability Failure"	has the meaning given in Schedule Part 14 (*Payment Mechanism*);
"Base Date"	has the meaning given in paragraph 16 of Section 2 (*Interpretation*) of Schedule Part 1 (*Definitions and Interpretation*);
"Base Senior Debt Termination Amount"	has the meaning given in Section 6 (*Definitions*) of Schedule Part 17 (*Compensation on Termination*);
"Beneficiary"	has the meaning given in Clause 49.3 (*Conduct of Claims*);
"Bioquarter Site"	means the area shown outlined in red on Plan 12;
"Bioquarter Infrastructure"	means the infrastructure resulting from the Bioquarter Works;
"Bioquarter Works"	means the design [(including preparation of all Design Data)], construction, testing and commissioning and completion of the works to be undertaken on the Bioquarter Site in accordance with paragraph 4.5.10 of Sub-Section C of Part 3 and Section 2 (Operational Construction Issues) and paragraph 7 *(Sub-station Access and Cables)* of Part 1 of Section 5 *(Access Areas, Drainage and Substation*) of Appendix A of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Board Assets"	means the Retained Estate, Retained Site and any other assets and equipment or other property used by, or on behalf of, the Board or any Board Party, other than the Facilities;
"Board Change"	has the meaning given in Schedule Part 16 (*Change Protocol*);
"Board Change Notice"	has the meaning given in Schedule Part 16 (*Change Protocol*);
"Board's Commissioning"	means the Board's pre-completion commissioning activities to be carried out by the Board in accordance with Clause 17 (*Pre-Completion Commissioning and Completion*);
"Board's Community Benefits Requirements"	means those requirements set out in [Board's Construction Requirements and Service Level

	Specification];
"Board's Construction Requirements"	means the requirements of the Board set out or identified in Section 3 (*Board's Construction Requirements*) of Schedule Part 6 (*Construction Matters*) as amended from time to time in accordance with the terms of this Agreement;
"Board Events of Default"	has the meaning given in Clause 39.1;
"Board's Maintenance Obligations"	has the meaning given in Clause 23.13;
"Board Observer"	means, from time to time, the individual designated as such by the Board;
"Board Party"	means any of the Board's agents, contractors and sub-contractors of any tier and its or their directors, officers and employees at the Facilities, with the authority of the Board but excluding Project Co, any Project Co Party and statutory undertakers and utilities and "**Board Parties**" shall be construed accordingly;
"Board Policies"	means, subject to Clause 27.7, the policies of the Board set out in Schedule Part 28 *(Board Policies)* as amended from time to time;
"Board's Post Completion Commissioning"	means the Board's post-completion commissioning activities to be carried out by the Board in accordance with Clause 18.1 (*Post Completion Commissioning*);
"Board's Representative"	means the person so appointed by the Board pursuant to Clause 8 (*Representatives*);
"Board Services"	means: (a) the Clinical Services; (b) the Non-Clinical Services; (c) a catering service comprising a restaurant, grab and go kiosks, vending machines and trolley services, (d) retail premises for the sale of goods which are ordinarily sold in hospitals; (e) display of works of art for exhibition and/or sale within the Site; (f) any Volunteer Services; (f) the holding of an occasional fete, tombola and raffle for charitable fund raising purposes within the Site; (e) Teenager Cancer Trust Activities,

	and such other services as may be notified to Project Co by the Board from time to time which are not services to be carried out by Project Co under this Agreement;
"Business Day"	means a day other than a Saturday, Sunday or a bank holiday in Edinburgh;
"Campus Facilities"	means the Facilities and Retained Estate;
"Campus Parties"	means the Board and/or Board Parties and/or Consort and/or Consort Parties and/or the University and/or the University Parties, and each of their tenants or any party authorised by the same;
"Campus Site"	means the land shown outlined in red on Plan 7 and contained in Schedule Part 27 *(Plans);*
"Capital Expenditure"	means capital expenditure (as such term is interpreted in accordance with generally accepted accounting principles in the United Kingdom from time to time);
"Car Park E"	means the area of land the extent of which is shown delineated in a broken red line on Plan 3 and the location of which within the Campus Site is shown on Plan 5;
"CDM Regulations"	has the meaning given in Section 2 (*Safety During Construction*) of Schedule Part 6 (*Construction Matters*);
"Certificate of Practical Completion"	means a certificate in the relevant form set out in Schedule Part 22 (*Certificates*);
"Change"	has the meaning given in Schedule Part 16 (*Change Protocol*);
"Change in Control"	means: (a) any sale or other disposal of any legal, beneficial or equitable interest in any or all of the equity share capital of a corporation (including the control over the exercise of voting rights conferred on that equity share capital, control over the right to appoint or remove directors or the rights to dividends); and/or (b) any other arrangements that have or may have or which result in the same effect as paragraph (a) above; means the coming into effect or repeal (without re-enactment or consolidation) in Scotland of any Law, or any amendment or variation to any Law, or any judgement of a relevant court of law which

	changes binding precedent in Scotland in each case after the date of this Agreement;
"Clinical Services"	means: (a) management, responsibility, administration and carrying out of the clinical and medical services provided at the Facilities by or on behalf of the Board from time to time; (b) the provision of training and education required to deliver the services referred to in paragraph (a) above, and which are not services to be provided by Project Co to the Board under this Agreement;
"Collateral Agreements"	means the Contractor's Collateral Agreement, the Service Providers' Collateral Agreements and the Key Sub-Contractor Collateral Agreements;
"Commencement Date"	means [the date of this Agreement];
"Commercially Sensitive Information"	means the sub set of Confidential Information listed in column 1 of Part 1 *(Commercially Sensitive Contractual Provisions)* and column 1 of Part 2 *(Commercially Sensitive Material)* of Schedule Part 26 (*Commercially Sensitive Information*) in each case for the period specified in column 2 of Parts 1 and 2 of Schedule Part 26 (*Commercially Sensitive Information*);
"Commissioners"	has the meaning given in Clause 35.3;
"Commissioning Completion Certificate"	means a certificate in the relevant form set out in Schedule Part 22 (*Certificates*);
"Commissioning End Date"	means the date by which the parties' commissioning activities are programmed to be completed in accordance with the Final Commissioning Programme;
["Committed Standby Facility"	means [ ];]
"Compensation Event"	has the meaning given in Clause 29.10;
"Compensation Payment"	has the meaning given in Clause 46.10;
"Completion Criteria"	means the Completion Tests as defined in Appendix B of Schedule Part 10 (*Outline Commissioning Programme*);
"Completion Date"	means [ ] or such revised date as may be specified by the Board's Representative pursuant to Clause 29 *(Delay Events)* or such other date as may be agreed by the parties;
"Completion Process"	has the meaning given to it in Schedule Part 10

(Outline Commissioning Programme);

"Confidential Information" means:

(a) information that ought to be considered as confidential (however it is conveyed or on whatever media it is stored) and may include information whose disclosure would, or would be likely to, prejudice the commercial interests of any person, trade secrets, Intellectual Property Rights and know-how of either party and all personal data and sensitive personal data within the meaning of the Data Protection Act 1988 and

(b) Commercially Sensitive Information;

"Connection Area" means the area of land shown shaded blue on Plan 2;

"Connection Proposal" means the agreed proposal for connection information relating to the connection from the Facilities to the Link Building in Appendix G of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with the Agreement);

"Consents" means all permissions, consents, approvals, certificates, permits, licences, statutory agreements and authorisations required by Law, and all necessary consents and agreements from any third parties (including, without limitation, any Planning Permission), needed to carry out the Project Operations in accordance with this Agreement;

"Consort" means Consort Healthcare (Edinburgh Royal Infirmary) Limited a company incorporated in Scotland under the Companies Acts (company number SC187449) and having its registered office at Edinburgh Quay, 133 Fountainbridge, Edinburgh EH3 9AG and/or any successor and/or assignee or party acquiring an interest in the Retained Estate and/or Retained Site and/or the RIE Project Agreement;

"Consort Party" means Consort's agents and contractors of any tier and its or their directors, officers, employees and/or workmen in relation to the Retained Site and/or the Retained Estate and any relevant successors of the same;

"Construction Access" as defined in paragraph 1.1 of Section 1 *(Construction Access)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A of the Board's Construction

	Requirements (as varied, amended or supplemented from time to time in accordance with the Agreement);
"Construction Access Proposal"	means the agreed proposal for construction access over the Yellow Area in Appendix H of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with the Agreement);
"Construction Contract"	means the design and build contract dated the same date as this Agreement between Project Co and the Contractor (which, as at the date of this Agreement, is in the Agreed Form) as amended or replaced from time to time in accordance with this Agreement;
"Construction Phase"	means the period from and including the date of execution of this Agreement to and including the Actual Completion Date;
"Construction Quality Plan"	means the document at Section 8 (*Quality Plans (Design and Construction*)) of Schedule Part 6 (*Construction Matters*);
"Contamination"	means all or any pollutants or contaminants, including any chemical or industrial, radioactive, dangerous, toxic or hazardous substance, waste or residue (whether in solid, semi-solid or liquid form or a gas or vapour) and including without limitation genetically modified organisms;
"Contract Month"	means a calendar month provided that: (a) the first Contract Month shall be the period from and including the Payment Commencement Date to and including the last day of the calendar month in which the Payment Commencement Date falls; and (b) the last Contract Month shall be the period from and including the first day of the calendar month in which the Expiry Date or Termination Date (as the case may be) falls to and including the Expiry Date or the Termination Date (as the case may be);
"Contract Year"	means: (a) for the first Contract Year, the period from the date of this Agreement to the subsequent 31 March; and (b) for all subsequent Contract Years, the period of twelve 12 calendar months commencing on each anniversary of 1

April,

provided that the final Contract Year shall be such period as commences on 1 April and ends on and includes the date of expiry or earlier termination of this Agreement (as the case may be);

"Contracting Associate" means the Contractor, any Service Provider and [any other entity which performs on behalf of Project Co any material function in connection with this Agreement or the Project Operations];

"Contractor" means [ ] engaged by Project Co to carry out the Works and any substitute design and/or building contractor engaged by Project Co as may be permitted by this Agreement;

"Contractor's Collateral Agreement" means a collateral agreement among the Board, Project Co and the Contractor in the form set out in Section 1 of Schedule Part 9 (*Collateral Agreements*);

"Contractor's Site Manager" means the manager to be appointed by the Contractor for purposes of supervision of all day-to-day activities on the Site and/or Off-Site;

"Contractor's Site Rules" means the Contractor's rules, applicable on the Site and/or Off-Site to the Board, Project Co, the Contractor and their respective sub-contractors and suppliers of every tier during the construction of the Facilities and the Retained Estate Handback Infrastructure;

"Convictions" means, other than in relation to minor road traffic offences, any previous or pending prosecutions, convictions, cautions and binding-over orders (including any spent convictions as contemplated by section 1(1) of The Rehabilitation of Offenders Act 1974 by virtue of the exemptions specified in Part II of Schedule 1 of the Rehabilitation of Offenders Act 1974 (Exceptions) Order 1975 (SI 1975/1023) and the Rehabilitation of Offenders Act 1974 (Exclusions and Exceptions) (Scotland) Order 2003 Scottish SI 2003/231) or any replacement or amendment to those Orders);

"Cycle Path Infrastructure means the infrastructure resulting from the Cycle Path Works;

"Cycle Path Works" means the design (including preparation of all Design Data)], construction, testing and commissioning and completion of the works to be undertaken on the cycle path in accordance with inter alia paragraphs 3.8.4 and 4 of the Board's Construction Requirement (as varied, amended or supplemented from time to time in accordance with this Agreement);

"Deduction"	means a deduction to be made in calculating a Monthly Service Payment, calculated in accordance with Section 3 (*Deductions from Monthly Service Payments*) of Schedule Part 14 (*Payment Mechanism*);
"Deemed Liability"	has the meaning given in Clause 46.7.3;
"Default Interest"	means any increased margin that is payable to the Senior Funders or which accrues as a result of any payment due to the Senior Funders not being made on the date on which it is due;
"Default Interest Rate"	means 2% over LIBOR;
"Defects"	means any defect or fault in the Works and/or the Facilities and/or the Retained Estate Handback Infrastructure (not being a Snagging Matter) which occurs due to a failure by Project Co to meet the Board's Construction Requirements and/or Project Co's Proposals or otherwise to comply with its obligations under this Agreement;
"Delay Event"	has the meaning given in Clause 29.3;
"Derogated Low Value Change"	has the meaning given in Schedule Part 16 (*Change Protocol*);
"Design Data"	means all drawings, reports, documents, plans, software, formulae, calculations and other data relating to the design, construction, testing and/or operation of the Facilities and/or the Retained Estate Handback Infrastructure;
"Design Quality Plan"	means the document at Section 8 (*Quality Plans (Design and Construction*)) of Schedule Part 6 (*Construction Matters*);
"Direct Losses"	means, subject to the provisions of Clause 54.1, all damage, losses, liabilities, claims, actions, costs, expenses (including the cost of legal or professional services, legal costs being on an agent/client, client paying basis), proceedings, demands and charges whether arising under statute, contract or at common law but, to avoid doubt, excluding Indirect Losses;
"Disclosed Data"	means any Design Data and any other written information, data and documents made available or issued to Project Co or any Project Co Party in connection with the Project by or on behalf of the Board (or any Board Party) whether on, before or after the execution of this Agreement;
"Discriminatory Change in Law"	means any Change in Law the effect of which is to discriminate directly against: (a) hospitals whose design, construction, financing and operation are procured under the private finance initiative in

relation to other similar projects; or

(b) companies undertaking projects procured by contracts under the private finance initiative in relation to other companies undertaking similar projects; or

(c) the Re-provision of RHSC and DCN at Little France in relation to other similar facilities; or

(d) Project Co in relation to other companies,

save:

(i) where such Change in Law is in response to any act or omission on the part of Project Co which is illegal (other than an act or omission rendered illegal by virtue of the Change in Law itself);

(ii) that such action shall not be deemed to be discriminatory solely on the basis that its effect on Project Co is greater than its effect on other companies; and

(iii) that a change in taxes or the introduction of a tax affecting companies generally or a change in VAT shall be deemed not to be discriminatory in any circumstances (to avoid doubt, such changes being given effect in accordance with Clause 35 (*VAT and Construction Industry Tax Deduction Scheme*);

"Dispute" has the meaning given in paragraph 1 of Schedule Part 20 (*Dispute Resolution Procedure*);

"Dispute Resolution Procedure" means the procedure set out in Schedule Part 20 (*Dispute Resolution Procedure*);

"Drainage Infrastructure" means the infrastructure resulting from the Drainage Works;

"Drainage Works" means the design [(including preparation of all Design Detail)], construction, testing and commissioning and completion of the drainage works to be undertaken in accordance with inter alia paragraphs 4, 6 and 8 of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance

	wit this Agreement);
“Emergency”	means an event causing or, in the reasonable opinion of a party, threatening to cause death or injury to any individual, or serious disruption to the lives of a number of people or extensive damage to property, or contamination of the environment, in each case on a scale beyond the capacity of the emergency services or preventing the Services operating under normal circumstances and requiring the mobilisation and organisation of the emergency services;
"Encumbrance"	means any option, right of pre-emption, pledge, security, interest, lien, charge, mortgage, lease, licence, claim, condition, retention or other encumbrance or restriction whether imposed by agreement, by law or otherwise;
"Energy Model"	means Project Co's approved software energy model used to inform compliance of Project Co’s Proposals with the Board’s Energy Performance criteria;
"Energy Performance"	means the Board’s requirements in relation to achieving a minimum performance for BREEAM credit ENE 01 and a minimum Energy Performance Certificate rating, as set out in Section 3 (*Board’s Construction Requirements*) of Schedule Part 6 (*Construction Matters*);
“Environmental Information (Scotland) Regulations”	means the Environmental Information (Scotland) Regulations 2004 together with any guidance and/or codes of practice issued by the Scottish Information Commissioner or relevant Government Department in relation to such regulations;
“Equipment”	means the Group 1 Equipment, the Group 2A Equipment, the Group 2B Equipment and/or the Group 3 Equipment;
"Equipment Responsibilities Matrix"	means the equipment responsibilities matrix set out in Appendix 2 of Schedule Part 11 *(Equipment);*
"Equipment Schedule"	means the equipment schedule set out in Appendix 1 to Schedule Part 11 *(Equipment);*
“Estimated Deductions”	has the meaning given in Clause 34.2.1;
“Estimated Increased Maintenance Costs”	has the meaning given in Clause 23.7;
“Excusing Cause”	has the meaning given in Clause 51.2;
“Expiry Date”	means [midnight] on [date];
“Facilities”	means the buildings and other facilities, together with all supporting infrastructure (including the Plant and the Group 1 Equipment), external hard-

	standings, specialist surfaces and other amenities located on the Site and Off-Site (excluding the Retained Estate Handback Infrastructure but including as a minimum all aspects detailed within Appendix B to Section 1 (*Service Level Specification*) of Schedule Part 12 (*Service Requirements*)), as required to enable Project Co to comply with its obligations under this Agreement, all as the same may be varied, amended or supplemented from time to time in accordance with this Agreement;
"Facility Manager"	means Project Co's duty manager who shall be present at the Facilities in accordance with the Service Level Specification;
"Fees Regulations"	means the Freedom of Information (Fees for Required Disclosure (Scotland)) Regulations 2004;
"Final Commissioning Programme"	means the programme jointly developed and agreed by the Board and Project Co in accordance with the provisions of Clause 17.1;
"Financial Close"	means the date of this Agreement;
"Financial Close Energy Model"	means Project Co's Energy Model as agreed with the Board at Financial Close to inform compliance of Project Co's Proposals with the Board's Energy Performance requirements for the Facilities as detailed in Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters);*
"Financial Model"	means the computer spreadsheet model for the Project incorporating statements of Project Co's cashflows including all expenditure, revenues, financing and taxation of the Project Operations together with the profit and loss accounts and balance sheets for Project Co throughout the Project Term accompanied by details of all assumptions, calculations and methodology used in their compilation and any other documentation necessary or desirable to operate the model, as amended from time to time in accordance with the terms of Clause 37 (*Financial Model*), a copy of which is attached to this Agreement on disk as Attachment [ ];
"Finishes"	means those finishes listed in the table set out in paragraph 1.2.3 of Schedule Part 8 (*Review Procedure*);
"Finishes Proposal Date"	means, in relation to a Finish, the relevant date identified in the table set out in paragraph 1.2.3 of Schedule Part 8 (*Review Procedure*);
"Finishes Selection Date"	means, in relation to a Finish, the relevant date identified in the table set out in paragraph 1.2.3 of

	Schedule Part 8(*Review Procedure*);
"First Party"	has the meaning given in Clause 35.3;
"FOI(S)A"	means the Freedom of Information (Scotland) Act 2002 and any subordinate legislation (as defined in section 73 of the Freedom of Information (Scotland) Act 2002) made under the Freedom of Information (Scotland) Act 2002 from time to time together with any guidance and/or codes of practice issued by the Scottish Information Commissioner or relevant Government department in relation to such Act;
"Force Majeure"	has the meaning given in Clause 31 (*Force Majeure*);
"Foul Service Strip"	means the area shaded yellow and hatched black on Plan 2A;
"Functional Area"	means an area of the Facilities identified as such in Appendix 2 to Schedule Part 14 (*Payment Mechanism*);
"Funders"	means all or any of the persons who provide financing or funding in respect of the Project Operations under the Funding Agreements including [ ] and, where the context so permits, prospective financiers or funders;
"Funders' Direct Agreement"	means the agreement to be entered into between the Board, the Senior Funders and Project Co in the form set out in Schedule Part 4 (*Funders' Direct Agreement*);
"Funding Agreements"	means all or any of the agreements or instruments to be entered into by Project Co or any of its Associates relating to the financing of the Project Operations (including the Initial Funding Agreements and any agreements or instruments to be entered into by Project Co or any of its Associates relating to the rescheduling of their indebtedness or the refinancing of the Project Operations);
"Funding Default"	means [refer to Borrower default under Senior Funding Agreements.];
"Good Industry Practice"	means using standards, practices, methods and procedures conforming to the Law and exercising that degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances;
"Government"	means the government of the United Kingdom or

	the Scottish Ministers;
“Ground Physical and Geophysical Investigation”	means the investigation of all the conditions of and surrounding the Site and Off-Site and of any extraneous materials in, on or under the Site and Off-Site (including its surface and subsoil) to enable the Facilities and the Retained Estate Handback Infrastructure to be designed and constructed and the Works to be carried out with due regard for those conditions and the seismic activity (if any) in the region of the Site and Off-Site;
"Group 1 Equipment"	means the equipment indicated as 1 in the "Group" column of the Equipment Responsibilities Matrix;
"Group 2A Equipment"	means the equipment indicated as 2A in the "Group" column of the Equipment Responsibilities Matrix;
"Group 2B Equipment"	means the equipment indicated as 2B in the "Group" column of the Equipment Responsibilities Matrix;
"Group 3 Equipment"	means the equipment indicated as 3 in the "Group" column of the Equipment Responsibilities Matrix;
“H&S Conviction”	has the meaning given in Clause 40.1.5;
“Handback Amount”	has the meaning given in Schedule Part 18 (*Handback Procedure*);
“Handback Bond”	has the meaning given in Schedule Part 18 (*Handback Procedure*);
“Handback Certificate”	means the certificate of confirmation that the Facilities comply with the Handback Requirements in the relevant form set out in Schedule Part 18 (*Handback Procedure*);
“Handback Programme”	has the meaning given in Schedule Part 18 (*Handback Procedure*);
“Handback Requirements”	has the meaning given in Schedule Part 18 (*Handback Procedure*);
“Handback Works”	has the meaning given in Schedule Part 18 (*Handback Procedure*);
"Handover Clean"	has the meaning given in paragraph 3 *(Handover Clean)* of Appendix B *(Completion Criteria)* of Schedule Part 10 *(Outline Commissioning Programme);*
"Hatched Orange Area"	means the area of land shown coloured orange and hatched in black on Plan 2, which forms part of the Orange Area;

"Health and Safety Regime"	means the Food Safety Act 1990 (and associated regulations), the Health & Safety at Work etc Act 1974 (and associated regulations), the Fire Precautions Act 1971, the Environmental Protection Act 1990 and the Water Industry (Scotland) Act 2002 and any similar or analogous health, safety or environmental legislation in force from time to time;
"Health Board"	means a health board established under section 2 of the National Health Service (Scotland) Act 1978 (or any successor body to any such body established with substantially the same powers or duties);
"High Value Change Stage 2 Submission"	has the meaning given in Schedule Part 16 (*Change Protocol*);
"Hold Co"	means [ ];
"Holding Company"	has the meaning given to it in section 1159 of the Companies Act 2006;
"Hospital Square"	means the areas shaded orange and hatched black on Plan 2, which forms part of the Orange Area;
"Hospital Square Infrastructure"	means the infrastructure resulting from the Hospital Square Works;
"Hospital Square Works"	means the works to be carried out in relation to Hospital Square as set out in inter alia paragraph 4of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Hours for Programmed Maintenance"	has the meaning given in Appendix 2 of Schedule Part 8 (*Review Procedure*);
"Hours of Operation"	has the meaning given in Appendix 2 of Schedule Part 8 (*Review Procedure*);
"Indemnifier"	has the meaning given in Clause 49.3 (*Conduct of Claims*);
"Indemnity Period"	has the meaning given to it in Schedule Part 15 *(Insurance Requirements);*
"Independent Tester"	means the [insert name of Independent Tester] or such substitute independent tester as may be permitted pursuant to this Agreement;
"Independent Tester Contract"	means the contract dated the same date as this Agreement in the form set out in Schedule Part 13 (*Independent Tester Contract*) or any replacement thereof among Project Co, the Board and the Independent Tester;
"Indirect Losses"	has the meaning given in Clause 54.1

	(*Exclusions and Limits on Liability*);
"Information"	has the meaning given under section 73 of the Freedom of Information (Scotland) Act 2002;
"Initial Funding Agreements"	means [ ] in the Agreed Form;
"Insurance Proceeds Account"	means the account numbered [ ] in the joint names of Project Co and the Board with the [Account Bank (as defined in the Funding Agreement)];
"Insurance Proceeds Account Agreement"	means the agreement in the form set out in Schedule Part 25 (*Insurance Proceeds Account Agreement*);
"Insurance Term"	means any term and/or condition required to be included in a policy of insurance by Clause 53 (*Insurance*) and/or Schedule Part 15 (*Insurance Requirements*) but excluding any risk;
"Insurances"	means, as the context requires, all or any of the insurances required to be maintained by Project Co pursuant to this Agreement;
"Intellectual Property"	means all registered or unregistered trademarks, service marks, patents, registered designs, utility models, applications for any of the foregoing, copyrights, unregistered designs, the sui generis rights of extraction relating to databases, trade secrets and other confidential information or know-how;
"Intellectual Property Rights"	means the Intellectual Property which (or the subject matter of which) is created, brought into existence, acquired, used or intended to be used by Project Co, any Project Co Party or by other third parties (for the use by or on behalf of or for the benefit of Project Co) for the purposes of the design or construction of the Facilities and the Retained Estate Handback Infrastructure, the operation, maintenance, improvement and/or testing of the Facilities and Retained Estate Handback Infrastructure or the conduct of any other Project Operation or otherwise for the purposes of this Agreement;
"Interim Project Report"	means a report prepared by Project Co setting out all information which Project Co is required to provide to the Senior Funders in respect of a Funding Default;
"ICT"	means data cabling in the communication room in the RIE Facilities and connecting the Facilities to the RIE Facilities;
"Initial Drainage Proposal"	means the proposal in regard to works to install new surface water drainage connections from the Site to the surface water drainage within the RIE Site detailed in Appendix E of the Board's

	Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"IT"	means information technology systems, hardware and software;
"Interface Output Specification"	means the document entitled "Link to RIE Interface Output Specification" detailing interfaces between the Facilities and the Link Building and/or the RIE Facilities set out in Appendix B of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Interface Proposals"	means any of the Access Strategy, Connection Proposal, Construction Access Proposal, Oversail Strategy, Service Proposal, Substation Proposal, Supplemental Drainage Proposal, Traffic Management Strategy, and any strategy or proposal agreed or determined pursuant to the terms of Part 2 *(Interface Proposals Procedure)* of Appendix A of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement), which Interface Proposals form part of Project Co's Proposals and Method Statements;
"Joint"	means the isolation/movement joint within the Connection Area between the Facilities and the Link Building, as more particularly referred to at paragraph 3.3 of the Interface Output Specification;
"Key Sub-Contractor"	means every sub-consultant appointed by Project Co and/or the Contractor who has responsibility for design of the Works or any part thereof[31];
"Key Sub-Contractor Collateral Agreements"	means the collateral agreement among the Board, Project Co [, the Contractor] and the Key Sub-Contractors in the form set out in Section 3 of Schedule Part 9 (*Collateral Agreements*);

[31] The Board are considering whether to list any key subcontract elements from whom they would like key sub-contract warranties in addition to design team warranties. Such key elements may include, helipad design,piling, roof, windows, lifts etc.

"Law"	means: (a) any applicable statute or proclamation or any delegated or subordinate legislation; (b) any enforceable community right within the meaning of section 2(1) of the European Communities Act 1972; (c) any applicable guidance, direction or determination with which the Board and/or Project Co is bound to comply to the extent that the same are published and publicly available or the existence or contents of them have been notified to Project Co by the Board; and (d) any applicable judgement of a relevant court of law which is a binding precedent in Scotland, in each case in force in Scotland;
"LIBOR"	means the rate per annum determined by [ ] Bank plc to be the offered rate for six month sterling deposits in the London interbank market which appears on Telerate Page 3750 (or such other page as may replace that page on the Dow Jones Telerate service);
"Lifecycle Replacement"	means any works for the renewal of any Plant, Equipment, or any other asset or part of the Facilities that are necessary to ensure that the Facilities are maintained in accordance with the Service Level Specification and Method Statements and that the Facilities comply with the Board's Construction Requirements and Project Co's Proposals throughout the Project Term;
"Link Building"	means the extension to the RIE Facilities constructed or to be constructed within the Connection Area by or on behalf of the Board;
"Little France Campus Working Group"	has the meaning given to it in Clause 8A.1 *(Little France Campus Working Group);*
"Little France Campus Working Group Parties"	means one (1) member of the Board, Consort, the University, Project Co and the relevant Sub-contractor;
"Little France Steading"	means subjects extending to 0.242 hectares forming Little France Steading shown outlined in

red on Plan 10;

"Low Value Change" has the meaning given in Schedule Part 16 (*Change Protocol*);

"Maintenance Works" means any works for maintenance or repair of the Facilities that are necessary to ensure that the Facilities are maintained in accordance with Service Level Specification and Method Statements and that the Facilities comply with the Board's Construction Requirements and Project Co's Proposals (including, without limitation, the renewal or replacement of any Plant or equipment) throughout the Project Term but excluding for the avoidance of doubt Lifecycle Replacement;

"Major Incident" means a major incident as defined in paragraph 1.2 of the Board Policy titled "Major Incident Plan", as set out in Schedule Part 28 (*Board Policies*);

"Malicious Damage Report" has the meaning given in Clause 49A.2.1;

"Medical Contamination" means a disease carrying agent which cleaning and prevention of infection or contamination techniques in use in accordance with Good Industry Practice and this Agreement cannot substantially prevent or cannot substantially remove with the result that:

(a) it is unsafe to admit patients or staff to the relevant area or to use the area for the purpose for which it is intended; and

(b) the area cannot be made safe for the admission of patients or staff;

"Medium Value Change" has the meaning given in Schedule Part 16 (*Change Protocol*);

"Method Statements" means the method of providing a Service as set out or identified in Section 2 (*Method Statements*) of Schedule Part 12 (*Service Requirements*) as amended from time to time in accordance with Clause 33 (*Change Protocol*) and Clause 22 (*The Services*);

"Monthly Service Payment" has the meaning given in Schedule Part 14 (*Payment Mechanism*);

"Monthly Service Report" means a monthly report to be prepared by Project Co and provided to the Board in accordance with the relevant provisions in Section 1 (*Service Level Specification*) of Schedule Part 12 (*Service Requirements*);

"Net Present Value" has the meaning given in Schedule Part 23 (*Refinancing*);

"NHS" means the National Health Service;

"NHS Requirement" means:

(a) in relation to the Works, Health Building Notes and Health Technical Memoranda and such other requirements as are designated as NHS Requirements in the Board's Construction Requirements; and

(b) in relation to the Project Operations (other than the Works), Health Building Notes, Health Technical Memoranda, all Executive Letters, Health Service Guidelines, Health Circulars of the NHS and any similar official requests, requirements and guidance having similar status for the time being in force, but only to the extent the same are published and publicly available or the existence and contents of them have been notified to Project Co by the Board;

"Non-Clinical Services" has the meaning set out in Sub-Section E *(Specific Non-Clinical Requirements)* of the Board's Construction Requirements;

"NPD" means non-profit distributing model;

"NPD Mandatory Provisions" shall mean Clause 4.4 *(Changes to Funding Agreements and Refinancing)* of this Agreement and Articles [ ][32] of the Articles of Association;

"NPD Requirements" means all of the following requirements:

(a) not to make a distribution of profit or surplus, or any transfer of assets to one or more shareholders whether by means of any payment or transfer of assets, directly or indirectly, in cash or in any kind, whether by way of dividend, bonus or release of obligation or in any other way otherwise than:

(i) for full consideration; or

(ii) to the Board pursuant to Clause 36 (*Payment of Surpluses and Compliance with NPD Requirements*) or Article [12 or 13] of the Articles of Association); or

(iii) [Project Co's Share of a Project

[32] Insert reference to mandatory NPD Articles of the Articles of Association in due course.

Co Change]; or

(iv) [Project Co's Share of a Refinancing Gain];

(b) not to amend or delete, or add new provisions to the Articles of Association, which have the effect of amending or frustrating the NPD Mandatory Provisions;

(c) to comply with the NPD Mandatory Provisions; and

(d) not to frustrate the appointment of the Public Interest Director to Project Co's board of directors in accordance with the Articles of Association;

"Off-Site" means the land made available to Project Co for the Off-Site Works and Services being:

(a) the Yellow Area, the Orange Area, the Connection Area, the Service Strip and the Substation Access Area in Plan 2; and

(b) the Foul Service Strip on Plan 2A; and

(c) the Substation Site and [Sub-station Cable Route] on Plan 4;

"Off-Site Conditions" means the condition of the Off-Site (including but not limited to) hydrological, hydrogeological, ecological, environmental, geotechnical and archaeological conditions;

"Off-Site Works" means the Bioquarter Works, RIE Works, Hospital Square Works, Cycle Path Works, Sub-Station Works and/or Sub-Station Access Works;

"Operational Functionality" means

(a) the following matters as shown on the 1:500 scale development control plan and site plans;

(i) the point of access to and within the Site and the Facilities;

(ii) the relationship between one or more buildings that comprise the Facilities; and

(iii) the adjacencies between different hospital departments

within the Facilities,

as indicated on the following drawings in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* [relevant drawing numbers [●]];

(b) the following matters as shown on the 1:200 scale plans:

(i) the points of access to and within the Site and the Facilities;

(ii) the relationship between one or more buildings that comprise the Facilities;

(iii) the adjacencies between different hospital departments within the Facilities; and

(iv) the adjacencies between rooms within the hospital departments within the Facilities,

as indicated on the following drawings in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* [relevant drawing numbers [●]];

(c) the quantity, description and areas (in square metres) and minimum critical dimensions of those rooms and spaces as indicated on the following drawings in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* [relevant drawing numbers [●]];

(d) the location and relationship of equipment, furniture, fittings and user terminals as shown on the 1:50 loaded room plans in respect of:

(i) all bed and trolley positions;

(ii) internal room elevations;

(iii) actual ceiling layouts;

(iv) the Non-Clinical Services supplies, storage, distribution and waste management spaces; and

(v) the ICT requirements;

(e) the location of and the inter-relationships between rooms within the departments within the Facilities, as indicated on the

following drawings in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* [relevant drawing numbers [●]];

but only insofar as each of the matters listed in (a) to (e) above relate to or affect Operational Use;

"Operational Insurances" means the insurances required by Clause 53.2 and "**Operational Insurance**" means any one of such insurances;

"Operational Term" means the period from the Actual Completion Date until the end of the Project Term;

"Operational Use" means the use of a room or space to the extent that it is used by the Board or its employees, tenants, agents and/or contractors (but not to avoid doubt Project Co staff) for carrying out the Board Services;

"Option Period" has the meaning given in Clause 53.14.3 (*Uninsurable Risks*);

"Orange Area" means the area of land shaded Orange on Plan 2;

"Original Senior Commitment" means the amount committed under the Senior Funding Agreements as at Financial Close (as adjusted to take into account any Qualifying Change);

"Outline Commissioning Programme" means the programme setting out the standards, specifications, procedures and other requirements for the carrying out and completion of the commissioning activities of the parties set out in outline in Schedule Part 10 (*Outline Commissioning Programme*);

"Oversail Strategy" means the agreed proposal(s) for oversailing parts of the Campus Site other than the Facilities in Appendix I of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);

"Payment Commencement Date" means the Actual Completion Date;

"Payment Mechanism" means Schedule Part 14 (*Payment Mechanism*);

"Performance Failure" has the meaning given in Section 1of Schedule Part 14 (*Payment Mechanism*);

"Performance Guarantees" means the guarantees to Project Co in respect of the Construction Contract, the Service Contracts [insert details of any other guarantees to be

given][33] which, as at the date of this Agreement are in the Agreed Form;

"**Permitted Borrowing**"	means without double-counting, any: (a) advance to Project Co under the Senior Funding Agreements, provided that such advance is not made under any Committed Standby Facility; (b) Additional Permitted Borrowing; (c) advance to Project Co under any Committed Standby Facility which is made solely for the purpose of funding any cost overruns, increased expenses or loss of revenue which Project Co incurs, provided that such funds are not used in substitution for other sources of committed funding designated for those purposes; and (d) interest and, in respect of the original Senior Funding Agreements only (as entered into at the date of this Agreement, prior to any subsequent amendment), other amounts accrued or payable under the terms of such original Senior Funding Agreements, except where the amount referred to in paragraphs (a) to (d) above is or is being used to fund a payment of Default Interest on any Additional Permitted Borrowing;
"Physical Damage Policies"	means the policies of insurance referred to in paragraph 1 (*Contractors' 'All Risk' Insurance*) of Section 1 (*Policies to be Taken Out by Project Co and Maintained During the Design and Construction Phase*) and paragraph 1 (*Property Damage*) of Section 2 (*Policies to be Taken Out By Project Co and Maintained from the Actual Completion Date*) of Schedule Part 15 (*Insurance Requirements*);
"Plan 1"	means the plan marked "Plan 1 *(RHSC & DCN Site)"* annexed and executed as relative hereto and contained in Schedule Part 27 *(Plans);*
"Plan 2"	means the plan marked "Plan 2 *(Yellow Area, Orange Area, Connection Area, Service Strip and Substation Access Area)"* annexed and executed as relative hereto and contained in Schedule Part

[33] Bidders to complete.

27 *(Plans);*

"Plan 2A" means the plan marked "Plan 2A *(Foul Service Strip*)" annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 3" means the plan marked "Plan 3 *(Car Park E)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 4" means the plan marked "Plan 4 *(Substation Site)"* annexed and executed as relative hereto and contained in Schedule Part 27 *(Plans);*

"Plan 5" means the plan marked "Plan 5 *(Car Parking Layout Plan)"* annexed and executed as relative hereto and contained in Schedule Part 27 *(Plans);*

"Plan 6" means the plan marked "Plan 6 *(Roads Layout)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 7" means the indicative plan marked "Plan 7 *(Campus Site Plan)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 8" means the plan marked "Plan 8 *(University Access Rights)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 9" means the plan marked "Plan 9 *(217 Old Dalkeith Road)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 10" means the plan marked "Plan 10 *(Little France Steading)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 11" means the plan marked "Plan 11 *(Sewer)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 12" means the plan marked "Plan 12 *(Bioquarter Site)"* annexed and executed as relative to this Agreement and contained in Schedule Part 27 *(Plans);*

"Plan 13" means the plan marked "Plan 13 *(Substation Cable Route)"* annexed and executed as relative to this Agreement and contained in Schedule Part

	27 *(Plans);*
"Planning Approval"	means planning permission in principal for the Project given reference number 11/02454/PPP by the City of Edinburgh Council and dated 5 April 2012,[and annexed as Attachment [ ];
"Planning Permission"	means any planning permission, approval of matters specified in conditions attached to any planning permission in principle listed building consent, conservation areas consent and/or other consent or approval reasonably required from time to time for construction and/or operation of the Facilities and the Retained Estate Handback Infrastructure (including without limitation for any Board Change and the Planning Approval);
"Plant"	means the infrastructure systems, building systems, fixed, and immovable equipment systems, installed as part of the Works or pursuant to an Board Change as replaced from time to time;
"Post Completion Commissioning"	means, as appropriate, Project Co's Post Completion Commissioning and/or the Board's Post Completion Commissioning;
"**Programme**"	means the programme set out in Schedule Part 7 (*The Programme*) as revised and issued by Project Co (or on its behalf) from time to time pursuant to Clause 14 (*Programme and Dates for Completion*);
"**Programmed Maintenance**"	means the maintenance work which Project Co is to carry out in accordance with Schedule of Programmed Maintenance;
"**Programmed Maintenance Information**"	has the meaning given in Clause 23.3;
"Prohibited Act"	has the meaning given in Clause 44 (*Corrupt Gifts and Payments*);
"Project"	has the meaning given in Recital B;
"Project Co Event of Default"	has the meaning given in Clause 40 (*Project Co Events of Default*);
"Project Co Party"	means Project Co's agents and contractors (including without limitation the Contractor and the Service Providers) and its or their sub-contractors of any tier and its or their directors, officers, employees and workmen in relation to the Project and "**Project Co Parties**" shall be construed accordingly;
"Project Co's Post-Completion Commissioning"	means Project Co's commissioning activities carried out in accordance with Clause 18.1;
"Project Co's Pre-Completion	means Project Co's commissioning activities to be carried out in accordance with Clause 17 (*Pre*

Commissioning"	*Completion Commissioning and Completion*);
"Project Co's Community Benefits Method Statements"	means those method statements set out in [•];
"Project Co's Proposals"	means the document at Section 4 (*Project Co Proposals*) of Schedule Part 6 (*Construction Matters*) as amended from time to time in accordance with Clause 33 (*Change Protocol*);
"Project Co's Remedial Services"	means any activities to be performed by or on behalf of Project Co pursuant to its rights under Clause 23.15;
"Project Co's Representative"	means the person appointed by Project Co pursuant to Clause 8 (*Representatives*);
"Project Data"	means: (a) all Design Data; (b) all drawings, reports, documents, plans, software, formulae, calculations and other data relating to the provision of the Services; and (c) any other materials, documents and or data acquired, brought into existence or used in relation to the Project Operations or this Agreement;
"Project Documents"	means the Ancillary Documents and the Funding Agreements;
"Project Operations"	means the carrying out of the Works, the carrying out of Project Co's Pre-Completion Commissioning and Project Co's Post-Completion Commissioning, the management and provision of the Services and the performance of all other obligations of Project Co under this Agreement from time to time;
"Project Term"	means the period commencing at midnight on the date of this Agreement and ending on the earlier of the Expiry Date and the Termination Date;
"Proposal for an Adverse Law"	means: (a) in the case of a bill, the bill being introduced by the Government or receiving the support of the Government at its second reading in the first House of Parliament into which it is introduced or the bill passing a second reading in the first House of Parliament

into which it is introduced;

(b) in the case of a bill passing through the Scottish Parliament, the bill being introduced by the Scottish Government or receiving the support of the Scottish Government at Stage 2 in the Scottish Parliament or the bill passing Stage 2 in the Scottish Parliament;

(c) in the case of subordinate legislation, the proposed statutory instrument or order being laid before Parliament in draft;

(d) in the case of a directive, regulation or decision of the European Union, its adoption; or

(e) in the case of an administrative act as referred to in the definition of Adverse Law, any of the following prior or preparatory to the making of such an act;

(f) the taking by the Board, the Government, a minister of the Crown, or a department, agency, regulator or other public body official of any step in a process defined by Law for the making of such administrative acts, other than any early stages of such process (such as, without limitation, consultation or information gathering) following the completion of which further substantive steps remain in such a process before the making of such an administrative act can occur; or

(g) any communication from the Government, a minister of the Crown, or the department, agency, regulator or other public body or official responsible for making such administrative acts, to the effect that such an administrative act will be made;

"Protecting Vulnerable Groups Scheme" means the Scottish Government's membership scheme which helps to ensure that people who have regular contact with children and protected adults through paid or unpaid work do not have a known history of harmful behaviour;

"PTS" means a pneumatic tube system installed within RIE Facilities and connecting the Facilities to the RIE Facilities;

"PRS Timetable"	has the meaning given in Clause 23.16;
"Qualifying Change"	means (unless expressly stated otherwise): (a) a Low Value Change in respect of which the parties have agreed the method of implementation; or (b) a Medium Value Change in respect of which the Board has issued a confirmation notice pursuant to paragraph 7.1.1 of Section 3 (*Medium Value Changes*) of Schedule Part 16 (*Change Protocol*); or (c) a High Value Change which has received Stage 2 Approval pursuant to paragraph 8.2.1 of Section 4 (*High Value Changes*) of Schedule Part 16 (*Change Protocol*), in each case provided that any necessary changes required to be made to any Project Document and/or Ancillary Document pursuant to Schedule Part 16 (*Change Protocol*) have been given effect to and become unconditional;
"Quality Plans"	means the Design Quality Plan and Construction Quality Plan, prepared in accordance with Section 8 (*Quality Plans (Design and Construction*)) of Schedule Part 6 (*Construction Matters*), and the Services Quality Plan, prepared in accordance with Section 3 (*Service Quality Plan*) of Schedule Part 12 (*Service Requirements*), as required to be implemented by Project Co in accordance with Clause 20 (*Quality Assurance*);
"Range of Finishes"	has the meaning given in paragraph 1.2.3(a) of Schedule Part 8 (*Review Procedure*);
"Rectification"	has the meaning given in Schedule Part 14 (*Payment Mechanism*);
"Rectification Period"	has the meaning given in Schedule Part 14 (*Payment Mechanism*);
"Refinancing"	has the meaning given in Schedule Part 23 (*Refinancing*);
"Reinstatement Plan"	has the meaning given in Clause 53.22 (*Reinstatement*);

"Reinstatement Works"	has the meaning given in Clause 53.22.2 (*Reinstatement*);
"Relevant Authority"	means any court with the relevant jurisdiction and any local, national or supra-national agency, inspectorate, minister, ministry, official or public or statutory person of the government of the United Kingdom, or of the European Union, (or of the Scottish Government or the Scottish Parliament);
"Relevant Change in Law"	has the meaning given in Clause 32.3 (*Changes in Law*);
"Relevant Event"	has the meaning given in Schedule Part 16 (*Change Protocol*);
"Relevant Incident"	has the meaning given in Clause 53.22.2 (*Reinstatement*);
"Relevant Payment"	has the meaning given in Clause 53.14.3;
"Relevant Proceeds"	has the meaning given in Clause 53.22.2 (*Reinstatement*);
"Relevant Service Transfer Date"	has the meaning given in Clause 25.1;
"Relevant Tax Liability"	has the meaning given in Clause 46.7.3;
"Relief"	has the meaning given in Clause 46.7.1;
"Relief Events"	has the meaning given in Clause 30 (*Relief Events*);
"Request for Information"	has the meaning set out in the FOI(S)A or the Environmental Information (Scotland) Regulations as relevant (where the meaning set out for the term "request" shall apply);
"Required Action"	has the meaning given in Clause 24.7;
"Reserved Rights"	means the matter referred to in Section 2 (*Safety During Construction*) of Schedule Part 5 (*Land Matters*)*;*
"Restricted Person"	means either: (a) a person providing or proposing to provide healthcare services of a similar nature to those provided or contemplated by the Board at the time in question; or (b) any person who has a material interest in the production of tobacco products and/or alcoholic beverages;

"Retail Prices Index" or **"RPI"**	means the Retail Prices Index (All Items) as published by the Office for National Statistics from time to time (the "Index"), or, failing such publication or in the event of a fundamental change to the Index, such other index as the parties may agree, or such adjustments to the Index as the parties may agree (in each case with the intention of putting the parties in no better nor worse position than they would have been in had the Index not ceased to be published or the relevant fundamental change not been made) or, in the event that no such agreement is reached, as may be determined in accordance with the Dispute Resolution Procedure;
"Retained Estate"	means the RIE Facilities and the University Facilities;
"Retained Estate Handback Infrastructure"	means the infrastructure to be handed back to the Board at or prior to the Actual Completion Date, comprising the Hospital Square Infrastructure, Cycle Path Infrastructure and Drainage Infrastructure;
"Retained Site"	means the Campus Site under exception of the Site;
"Revenue"	means the projected Unavoidable Fixed Costs and Senior Debt Service Costs of Project Co;
"Reviewable Design Data"	means the Design Data listed at Section 5 (*Reviewable Design Data*) of Schedule Part 6 (*Construction Matters*);
"Revised Senior Debt Termination Amount"	has the meaning given in Section 6 (*Definitions*) of Schedule Part 17 (*Compensation on Termination*);
"RIE Facilities"	means the existing hospital, buildings and other facilities together with all supporting infrastructure and amenities located on the RIE Site as such hospital, buildings, facilities, infrastructure and amenities may be modified from time to time;
"RIE Infrastructure"	means the infrastructure resulting from the RIE Works;
"RIE Project"	means the financing, design, construction equipping and operation of, and the provision of certain services in connection with the RIE Facilities;
"RIE Project Agreement"	means the private finance initiative agreement between the Board and Consort in relation to the RIE Project;
"RIE Site"	means the Retained Site other than the University Site;

"RIE Works"	means the design [(including preparation of all Design Data), construction, testing, commissioning and completion of the works to be undertaken at the RIE Site and/or the RIE Facilities in accordance with inter alia paragraph 4 of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Room Data Sheets"	has the meaning given in Section 6 (*Room Data Sheets*) of Schedule Part 6 (*Construction Matters*);
"Schedule of Lifecycle Replacement"	means the programme of Lifecycle Replacement for the Project Term that complies with the requirements set out in Clause 23A *(Lifecycle Replacement);*
"Second Party"	has the meaning given in Clause 35.3;
"Scottish Futures Trust"	means Scottish Futures Trust Limited (Company Number SC348382), having its registered office at 1st Floor, 11-15 Thistle Street, Edinburgh EH2 1DT;
"Schedule of Programmed Maintenance"	means the programme referred to in Clause 23.1 to be submitted to the Board's Representative by Project Co in accordance with Schedule Part 8 (*Review Procedure*);
"Security Trustee"	means [ ];
"Senior Debt"	has the meaning given in Section 6 (*Definitions*) of Schedule Part 17 (*Compensation on Termination*);
"Senior Debt Service Costs"	means interest and debt service costs incurred in respect of the [Senior Funding Agreements] less: (a) sums which are in arrears; (b) all sums reserved by Project Co and which Project Co is entitled to use to make such payments, without breaching the [Senior Funding Agreements];
"Senior Funders"	means [specify relevant funders];
"Senior Funding Agreements"	means [ ] as at the date of this Agreement and as amended as permitted under Clause 4 (*Project Documents*);
"Service Contracts"	means the contracts dated the same date as this Agreement between Project Co and each Service Provider (which as at the date of this Agreement are in the Agreed Form), by which Project Co will procure the performance of the Services (as amended or replaced from time to time in

	accordance with this Agreement);
"Service Event"	has the meaning given in Schedule Part 14 (*Payment Mechanism*);
"Service Level Specification"	means the requirements of the Board set out in Section 1 (*Service Level Specification*) of Schedule Part 12 (*Service Requirements*) as amended from time to time in accordance with Clause 33 (*Change Protocol*);
"Service Proposal"	means the agreed proposal for laying and maintaining service media in the Service Strip and/or foul drainage in the Foul Service Strip as applicable, in Appendix J of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Service Provider"	means each of [insert description of Service Providers] or any other person engaged by Project Co from time to time as may be permitted by this Agreement to procure the provision of the Services (or any part of them);
"Service Providers Collateral Agreements"	means the collateral agreements among the Board, Project Co and each Service Provider in the form set out in Section 2 of Schedule Part 9 (*Collateral Agreements*);
"Service Strip"	means the area shaded yellow and hatched black on Plan 2;
"Services"	means the services to be provided, managed and/or procured by Project Co for the Board in relation to the Facilities in accordance with Schedule Part 12 (*Service Requirements*) as subsequently amended or adjusted in accordance with this Agreement;
"Services Quality Plan"	means the document set out in Section 3 (*Services Quality Plan*) of Schedule Part 12 (*Service Requirements*);
"Sewer"	means the expected route of which is to be located within the area of land shaded green on Plan 11;
"Shareholder(s)"	means any person(s) who from time to time, as permitted by this Agreement, holds share capital in Project Co or Hold Co which persons are, as at the date of this Agreement, listed as such in Schedule Part 21 (*Project Co Information*);
"Shareholders Agreements"	means the agreement or agreements between the Shareholders relating to Project Co, including any agreement relating to the subscription of equity (or other shareholder funding) by the Shareholders in Project Co or Hold Co;

"Site"	means the land made available to Project Co for the Project outlined in red on "Plan 1 (*RHSC & DCN Site)"* and contained in Schedule Part 27 *(Plans)*;
"Site Conditions"	means the condition of the Site including (but not limited to) climatic, hydrological, hydrogeological, ecological, environmental, geotechnical and archaeological conditions;
"Snagging Matters"	means minor items of outstanding work (including in relation to landscaping) which would not materially impair the Board's use and enjoyment of the Facilities and/or Retained Estate and/or the Retained Estate Handback Infrastructure or the carrying out by the Board of the Board Services or the performance of the Services by Project Co and/or the carrying out of any services pursuant to the RIE Project Agreement;
"Snagging Notice"	means the notice to be issued by the Independent Tester in accordance with Clause 17.4;
"Specific Change in Law"	means: (a) any Change in Law which specifically refers to: (i) the provision of works or services the same as or similar to the Works or the Services in premises similar to the Facilities; or (ii) the holding of shares in companies whose main business is providing works or services the same as or similar to the Works or the Services in premises similar to the Facilities; or (b) any change in a NHS Requirement (other than any NHS Requirement which merely gives effect to Law generally and does not principally affect or principally relate to the provision or operation of the Facilities or healthcare premises);
"Stop Incident"	has the meaning given to it in Clause 13A.1.1 *(Board's right to stop Project Operations during the Project Term);*
"Sub-Contractor"	means any third party (including the Contractor and a Services Provider) who enters into any Sub-Contract;
"Sub-Contracts"	means the contracts entered into by or between Project Co, the Contractor and/or a Service Provider and other third parties in relation to any

	aspect of the Project Operations;
"Subordinated Debt"	has the meaning given in Section 6 (*Definitions*) of Schedule Part 17 (*Compensation on Termination*);
"Subordinated Funder"	means a person providing finance under a Subordinated Funding Agreement;
"Subordinated Funding Agreements"	means [ ] as at the date of this Agreement or as amended with the prior written agreement of the Board;
"Subsidiary"	has the meaning given to it in Section 1159 of the Companies Act 2006;
"Substation"	means the substation resulting from the Substation Works;
"Substation Access Area"	means the area outlined in blue, shaded blue and hatched black on Plan 2 and also coloured blue and hatched black on Plan 4;
"Substation Access Infrastructure"	means the road infrastructure resulting from the Substation Access Works;
"Substation Access Works"	means the design [including preparation of all Project Data], construction, testing and commissioning and completion of the works to be undertaken on the Substation Access Area in accordance with inter alia paragraph 4 of Appendix A of the Board's Construction Requirements (as carried, amended or supplemented from time to time in accordance with this Agreement);
"Substation HV Cable"	means the high voltage cable [which has a dedicated route in accordance with the Substation Cable Route] resulting from the Substation Works;
"Substation Infrastructure"	means the infrastructure resulting from the Substation Works being both the Substation and the Substation HV Cable;
"Substation Proposal"	means the agreed proposal for constructing an access in the Substation Access Area in Appendix K of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Substation Site"	means the area of land outlined in blue on Plan 4;
[**Sub-station Cable Route**	means the route shown in blue on Plan 13];
"Substation Works"	means the design (including preparation of all Design Data), construction, testing and commissioning and completion of the works to be

	undertaken on the Substation Site in accordance with inter alia paragraph 4 of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Suitable Substitute Contractor"	has the meaning given in Section 6 (*Definitions*) of Schedule Part 17 (*Compensation on Termination*);
"Supplemental Drainage Proposal"	means the agreed proposal for surface water drainage connections in the Orange Area in Appendix L of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Surplus"	means, on any given date, the amount (if any) standing to the credit of the Surplus Account;
"Surplus Account"	[has the meaning given in the Senior Funding Agreements];
"Surplus Payment"	means the payment of a Surplus or Surpluses by Project Co to the Board pursuant to Clause 36 (*Payment of Surpluses and Compliance with NPD Requirements*);
"Surplus Payment Date"	means, in relation to each period of 6 months that follows the Commencement Date, the final day of such period;
"Teenage Cancer Trust Activities"	means activities carried out at the Facilities and/or Site by the "Teenage Cancer Trust", a charitable organisation devoted to improving the lives of teenagers and young adults with cancer;
"Termination Date"	means the date on which termination of this Agreement takes effect in accordance with its terms;
"The NHS and You"	means the document so entitled and issued by the Scottish Government Health Directorate in January 2009;
"Title Conditions"	means title conditions set out in Section 5 of Schedule Part 5 (*Land Matters*);
"TPL Risk"	means a risk which is required to be insured under the third party liability insurance policy;
"Traffic Management Strategy" or "TMS"	means the agreed traffic management strategy for construction access over the Orange Area in Appendix M of the Board's Construction Requirements (as varied, amended or supplemented from time to time in accordance with this Agreement);
"Transfer Regulations"	means the Transfer of Undertaking (Protection of

Employment) Regulations 2006 (SI No. 246);

"Transferring Staff" has the meaning given to it in Clause 25.2;

“Unavoidable Fixed Costs” means the fixed costs incurred by Project Co which first fall due for payment by Project Co during the period of indemnity but excluding:

(a) costs which could have reasonably been mitigated or avoided by Project Co;

(b) payments to Project Co’s Associated Companies;

(c) payments which are not entirely at arm’s length;

(d) payments to holders of equity in Project Co, providers of Subordinated Debt and any other financing costs other than Senior Debt Service Costs

(e) indirect losses suffered or allegedly suffered by any person;

(f) fines, penalties or damages for unlawful acts, breaches of contract or other legal obligations;

(g) payments Project Co can recover under contract or in respect of which Project Co has a remedy against another person in respect of the same liability;

(h) payments to the extent that Project Co has available to it including:

(i) reserves which Project Co can draw upon without breaching the Senior Funding Agreements;

(ii) standby or contingent facilities or funds of Senior Debt or equity which Project Co is entitled to have available;

(i) payments representing any profits of the Project (to the extent not already excluded in (e) above);

“Uninsurable” means, in relation to a risk, either that:

(a) insurance is not available to Project Co in respect of the Project in the worldwide insurance market with reputable insurers of good standing in respect of that risk;

or

(b) the insurance premium payable for insuring that risk is at such a level that the risk is not generally being insured against in the worldwide insurance market with reputable insurers of good standing by contractors in the United Kingdom;

"University"	means the University Court of the University of Edinburgh and any successor or permitted assignee acquiring an interest in the University Site and/or the University Facilities;
"University Facilities"	means the existing university buildings, buildings and other facilities together with all supporting infrastructure and amenities located on the University Site as each university buildings, facilities, infrastructure and amenities may be modified from time to time;
"University Party"	means any of the University's agents, contractors and sub-contractors of any tier, its tenants and its or their directors, officers, employees, consultants, researchers, students, staff, workmen, licensees, permitted occupiers, tenants, users, visitors, sub-contractors (of any tier), any patients (whether of the University or of the University's tenants), and any other person for whom the University is responsible for;
"University Site"	means the two areas of land shaded orange on Plan 7;
"Unprogrammed Maintenance Work"	has the meaning given in Clause 23.8;
"Unreasonable Act"	means any act or omission which is contrary to any reasonable instruction, guidance or rules for the operation or management of the Facilities;
"Utilities"	has the meaning given in the Service Level Specification;
"VAT"	means value added tax at the rate prevailing at the time of the relevant supply charged in accordance with the provisions of the Value Added Tax Act 1994;
"VAT Sum"	has the meaning given in Clause 35 (*VAT and Construction Industry Tax Deduction Scheme*);
"Volunteer Services"	means any volunteer services and/or third sector bodies and/or retail bodies authorised by the Board to be the provider of volunteer services at the Facilities and/or Site from time to time, including for the avoidance of doubt the drop in centre, radio lollipop and clown doctors;

"Vitiating Act"	has the meaning given in Endorsement 2, Section 3 (*Endorsement*) of Schedule Part 15 (*Insurance Requirements*);
"Warning Notice"	means a notice validly served by the Board's Representative on Project Co under Clause 24.3(*Warning Notices*), specifying that it is a Warning Notice and setting out the circumstances that have given rise to the issue thereof;
"Works"	means the design (including the preparation of all Design Data), construction, testing, commissioning and completion of the Facilities and the Retained Estate Handback Infrastructure (including any temporary works) and the installation, testing, commissioning and completion of Equipment to be performed by Project Co in accordance with this Agreement (as varied, amended or supplemented from time to time in accordance with this Agreement);
" Yellow Area"	means the area shaded Yellow on Plan 2.

SECTION 2

INTERPRETATION

This Agreement shall be interpreted according to the following provisions, unless the context requires a different meaning:

1 The headings and marginal notes and references to them in this Agreement shall be deemed not to be part of this Agreement and shall not be taken into consideration in the interpretation of this Agreement.

2 Except where the context expressly requires otherwise, references to Clauses, Sub-clauses, paragraphs, sub-paragraphs and parts of the Schedule are references to Clauses, Sub-clauses, paragraphs, sub-paragraphs and parts of the Schedule to this Agreement and references to Sections, Appendices and Attachments (if any) are references to Sections, Appendices and Attachments to or contained in this Agreement.

3 The Schedule and Attachments (if any) to this Agreement are integral parts of this Agreement and a reference to this Agreement includes a reference to the Schedule and the Attachments (if any).

4 Words importing persons shall, where the context so requires or admits, include individuals, firms, partnerships, trusts, corporations, governments, governmental bodies, authorities, agencies, unincorporated bodies of persons or associations and any organisations having legal capacity.

5 Where the context so requires words importing the singular only also include the plural and vice versa and words importing the masculine shall be construed as including the feminine or the neuter or vice versa.

6 The language of this Agreement is English. All correspondence, notices, drawings, Design Data, test reports, certificates, specifications and information shall be in English. All operating and maintenance instructions, name plates, identification labels, instructions and notices to the public and staff and all other written, printed or electronically readable matter required in accordance with, or for purposes envisaged by, this Agreement shall be in English.

7 Save where stated to the contrary, references to any agreement or document include (subject to all relevant approvals and any other provisions of this Agreement concerning amendments to agreements or documents) a reference to that agreement or document as amended, supplemented, substituted, novated or assigned.

8 References to any Law are to be construed as references to that Law as from time to time amended or to any Law from time to time replacing, extending, consolidating or amending the same provided that the provisions of this paragraph shall be without prejudice to the operation of Clause 32 (*Changes in Law*) and Schedule Part 16 (*Change Protocol*) which shall operate in relation to a Change in Law on the basis set out in this Agreement.

9 Without prejudice to Clause 57.1, references to a public organisation (other than the Board) shall be deemed to include a reference to any successor to such public organisation or any

organisation or entity which has taken over either or both the relevant functions and relevant responsibilities of such public organisation.

10 Without prejudice to Clause 57.1, references to other persons (other than the Board and Project Co) shall include their successors and assignees.

11 References to a deliberate act or omission of the Board or any Board Party shall be construed having regard to the interactive nature of the activities of the Board and of Project Co and the expression shall exclude acts or omissions which were within the contemplation of the parties or which were otherwise provided for in this Agreement.

12 The words in this Agreement shall bear their natural meaning. The parties have had the opportunity to take legal advice on this Agreement and no term shall, therefore, be construed contra proferentem.

13 Reference to "parties" means the parties to this Agreement and references to "a party" mean one of the parties to this Agreement.

14 In construing this Agreement, the rule known as the ejusdem generis rule shall not apply nor shall any similar rule or approach to the construction of this Agreement and accordingly general words introduced or followed by the word "other" or "including" or "in particular" shall not be given a restrictive meaning because they are followed or preceded (as the case may be) by particular examples intended to fall within the meaning of the general words.

15 All of Project Co's obligations, duties and responsibilities shall be construed as separate obligations, duties and responsibilities owed to the Board and to be performed at Project Co's own cost and expense.

16 Unless expressly stated otherwise, references to amounts or sums expressed to be "(**index linked**)" are references to amounts or sums expressed in prices relevant at the date of this Agreement (the "**Base Date**") which require to be adjusted whenever the provision containing the amount or sum is given effect in accordance with this Agreement to reflect the effects of inflation after that date. The adjustment shall be measured by changes in the relevant index published for that Contract Year as calculated in accordance with the following formula:

Amount or sum in Base Date prices x RPId/RPIo

Where RPI_d is the value of the Retail Prices Index published or determined with respect to the month of February most recently preceding the date when the provision in question is to be given effect and RPI_0 is the value of the Retail Prices Index at the Base Date

$$\frac{RPI_d}{RPI_0}$$

17 Reference to a document being in the Agreed Form is a reference to the form of the relevant document agreed between the parties and for the purpose of identification initialled by each of them or on their behalf.

18 The operation of the Housing Grants, Construction and Regeneration Act 1996 upon any Project Document shall not affect the rights or obligations of the parties under this

Agreement.

19 Words in parenthesis and italics appearing after a Clause reference or a reference to a Schedule Part are inserted for ease of reference only. If there is any discrepancy between the Clause reference and the words appearing in parenthesis and italics after the Clause reference, the Clause reference shall prevail.

20 Where this Agreement states that an obligation shall be performed "no later than" or "within" or "by" a prescribed number of Business Days after a stipulated date or event, or “no later than” or “by” a stipulated date or event which is a prescribed number of Business Days after a stipulated date or event, the latest time for performance shall be 5pm on the last Business Day for performance of the obligations concerned.

21 Where this Agreement states that an obligation shall be performed “no later than” or “within” or “by” a prescribed number of Business Days before a stipulated date or event, or “no later than” or “by” a stipulated date or event which is a prescribed number of Business Days before a stipulated date or event, the latest time for performance shall be 5pm on the last Business Day for performance of the obligations concerned.

SCHEDULE PART 2

COMPLETION DOCUMENTS

SECTION 1

DOCUMENTS TO BE DELIVERED BY PROJECT CO

Unless an original document is specifically requested, a copy (certified by an officer of Project Co as being a true copy) of each of the following documents is to be delivered by Project Co to the Board in accordance with Clause 2.1 (*Execution and Delivery of Documents*) of this Agreement:

1. The Consents and other authorisations, licences, permits, and approvals listed below:

   [Project specific items to be listed]

2 The Shareholders Agreements and certification from Project Co that the Shareholders Agreements have become (or will become, simultaneously with delivery of the other documents referred to in this Schedule Part 2 (*Completion Documents*)) unconditional in accordance with their terms, accompanied by evidence of the same.

3 The Initial Funding Agreements and certification from Project Co that (1) the Initial Funding Agreements have become unconditional (other than any condition relating to the conditionality of this Agreement) and (2) that all conditions to the availability of funds to Project Co under the Initial Funding Agreements have been satisfied or waived, accompanied by evidence of the same.

4 The Construction Contract, the Services Contract and the Performance Guarantees, executed by the parties to such agreements.

5 An original of the Funders' Direct Agreement, the Independent Tester Contract, the Insurance Proceeds Account Agreement, the Collateral Agreements and the brokers letters of undertaking relating to the Insurances referred to in paragraph 11 below in the Agreed Form, executed by the parties to such agreements (other than the Board).

6 Extracts from the minutes of the meeting of the board of directors (certified as true and accurate by the Secretary of the relevant company) of each of Project Co, each Shareholder[, Hold Co] and each of the other parties to the documents listed in Section 1 (*Documents to be delivered by Project Co*) of Schedule Part 2 (*Completion Documents*), at which resolutions were passed approving the execution, delivery and performance of each relevant document to which such person is expressed to be a party and in each case authorising a named person or persons to execute and deliver each such document and any other documents to be delivered by it pursuant to it. For the avoidance of doubt, this requirement shall not extend to the Senior Funders.

7 A certificate of the Secretary of each of the companies referred to in paragraph 11 above setting out the names and specimen signatures of the person or persons named in the relevant certified extract.

8 Evidence of the share subscriptions required under the Shareholders Agreements and other shareholder funding commitments having been made by the Shareholders in Project Co

[and Hold Co].

9 Project Co's [and Hold Co's] Certificate of Incorporation and of any Certificate of Incorporation on Change of Name.

10 The Articles of Association of Project Co [and Hold Co].

11 The insurance broker's letter of undertaking, evidence of the insurances required in accordance with Clause 53 (*Insurances*) having been taken out by Project Co and that the policies comply with the requirements of this Agreement, and an estimate by the insurance broker of the premiums for the Operational Insurances for the first year of the Operational Term.

12 Two computer disk copies of the Financial Model audited by [relevant financial adviser].

13 Evidence that an election has been made for Project Co to act as "client" for the Project for the purposes of the CDM Regulations.

14 Evidence that the Insurance Proceeds Account has been opened.

15 [Board to indicate other project specific documents, including any other project document, planning and property related agreements and any subordinated debt or other financing arrangement.]

16 An original duly executed copy of this Agreement.

SECTION 2

DOCUMENTS TO BE DELIVERED BY THE BOARD

The Board shall deliver to Project Co the following documents:

1. An original copy of the Funders' Direct Agreement, the Collateral Agreements, the Independent Tester Contract, the Insurance Proceeds Account Agreement and this Agreement, duly executed by the Board.

2 A certified copy of the resolution of the Board approving the execution, delivery and performance of the documents referred to in paragraph 1 above and in each case authorising a named person or persons to execute and deliver each such document and any documents to be delivered by it pursuant thereto.

3 A certificate of the relevant officer of the Board setting out the names and specimen signatures of the person or persons named in the resolution of the Board referred to in paragraph 2above.

4 [Board to list other project specific documents to be included.]

SCHEDULE PART 3

KEY WORKS PERSONNEL

SCHEDULE PART 4

FUNDERS' DIRECT AGREEMENT[34]

THIS AGREEMENT IS MADE ON

AMONG:

(1) **LOTHIAN HEALTH BOARD**, a health board constituted in Scotland under the National Health Service (Constitution of Health Boards) (Scotland) Order 1974 (S.I. 1974/267) as amended by the National Health Service (Constitution of Health Boards) (Scotland) Amendment Order 2003 (S.S.I. 2003/217) pursuant to Section 2 of the National Health Service (Scotland) Act 1978 as amended by section 28 of the National Health Service and Community Care Act 1990 and having its principal address at Waverley Gate, 2-4 Waterloo Place, Edinburgh EH1 3EG (the **"Board"**)

(2) [ ] (the "**Agent**" for the Senior Funders) on behalf of itself and the Senior Funders; and

(3) [ ] company no [ ]) whose registered office is at [ ] ("**Project Co**")

IT IS AGREED AS FOLLOWS:

1 **INTERPRETATIONS**

Definitions[35]

In this Agreement, unless the context otherwise requires:

"Appointed Representative"	means a Representative that has been notified to the Board pursuant to a Step-In Notice;
"Board Direct Agreements"	means [ ];
"Board Project Documents"	means the Design Build Finance and Maintain Agreement and all other documents to which the Board and Project Co are parties pursuant to the Design Build Finance and Maintain Agreement;
"Collateral Agreements"	means [ ];
"Collateral Agreement Counterparty"	means one of the parties to the Collateral Agreements (other than the Board or Project Co);

[34] The purpose of the Funders Direct Agreement is to provide rights for the Funders to step-in and manage the project where otherwise the right and obligation of Project Co to perform the project would terminate. The Funders require this right because their preferred approach will generally be to keep the project alive and preserve the project's income stream, rather than allowing the Agreement to terminate, as this represents the Funders' best chance of being fully repaid.
The Funders Direct Agreement sets out arrangements whereby the effect of any notice of termination issued by the Board will be suspended and the Funders will have a specified period to put in place alternative contractors to perform the project. Key issues will include the length of the suspensory period and the liability (if any) the Funders will incur while trying to save the project.

[35] A number of terms are defined by reference to various funding agreements. If this is the case a Master Definition Schedule should be appended to the Direct Agreement setting out all such definitions so that the intended meaning of all such terms is clear to all parties.

"Enforcement Event"	means [ ];
"Event of Default"	shall have the meaning given to it in the Credit Agreement;
"Event of Insolvency"	means [incorporate appropriate cross references from Design Build Finance and Maintain Agreement] (inclusive) of a Project Co Event of Default;
"Final Payment Date"	means [ ];
"Design Build Finance and Maintain Agreement"	means an agreement dated [ ] between Project Co and the Board relating to the [ ];
"Project Co Event of Default"	shall have the meaning given to it in the Design Build Finance and Maintain Agreement;[36]
"Representative"	means: (a) the Agent, any Senior Funder and/or any of their Affiliates; (b) an administrator, administrative receiver, receiver or receiver and manager of Project Co appointed under the Security Documents; (c) a person directly or indirectly owned or controlled by the Agent and/or any Senior Funders; or (d) any other person approved by the Board (such approval not to be unreasonably withheld or delayed);
"Required Period"	means subject to paragraph 4 (*No Liquid Market*) the period starting on the date of a Termination Notice and: (a) prior to the Payment Commencement Date, ending eighty (80) Business Days later; and (b) on or following the Payment Commencement Date, ending sixty (60) Business Days later;

[36] Definition to include not only the occurrence of an event of default under the credit agreement but also the taking of action to enforce repayment.

"Security Documents"	[list the security documents forming part of the Senior Funding Agreements];
"Senior Debt Discharge Date"	means the date on which all amounts owing by the Contractor to the Senior Funders under the Senior Funding Agreements have been irrevocably paid in full;
"Senior Funders"	means [insert details if not included in Design Build Finance and Maintain Agreement];
"Step-In Date"	means the date on which the Agent gives the Board a Step-In Notice;
"Step-In Notice"	means the notice given by Project Co to the Board pursuant to paragraph 5 (*Representative*) stating that the Agent is exercising the step-in rights under this Agreement and identifying the Appointed Representative;
"Step-In Period"	means the period from the Step-In Date up to and including the earlier of: (a) the Step-Out Date; (b) the date of any transfer under paragraph 8 (*Novation*); (c) the date of any termination for breach under paragraph 6 (*Step-In Period*); and (d) the date of expiry of the Design Build Finance and Maintain Agreement;
"Step-Out Date"	means the date falling twenty (20) Business Days after the date of a Step-Out Notice;
"Step-Out Notice"	means a notice from the Agent or Appointed Representative to the Board pursuant to paragraph 7 (*Step-Out*);
"Suitable Substitute Contractor"	means a person approved by the Board (such approval not to be unreasonably withheld or delayed) as: (a) having the legal capacity, power and authority to become a party to and perform the obligations of Project Co under the Board Project Documents; and

(b) employing persons having the appropriate qualifications, experience and technical competence and having the resources available to it (including committed financial resources and sub-contracts) which are sufficient to enable it to perform the obligations of Project Co under the Board Project Documents;

"Termination Notice" means a notice given by the Board to the Agent under paragraph3.2;

"Unrestricted Assets" means those [Assets], excluding any revenues or cash balances or claims outstanding at the date of transfer under any Sub-Contract, which are required by the Board or its nominee or any replacement of Project Co for the purposes of the construction, operation or maintenance of the Facilities following termination, assuming such construction, operation or maintenance is carried out on terms substantially the same as the terms of the Design Build Finance and Maintain Agreement.

1.2 Interpretation

1.2.1 Capitalised terms defined in the Design Build Finance and Maintain Agreement shall have the same meaning in this Agreement.

1.2.2 The clause and paragraph headings in this Agreement are for ease of reference only and are not to be taken into account in the construction or interpretation of any provision to which they refer.

1.2.3 Unless the context otherwise requires:

(a) a reference in this Agreement to any clause, sub-clause, paragraph, schedule or annex is, except where it is expressly stated to the contrary, a reference to such clause, sub-clause, paragraph, schedule or annex of this Agreement;

(b) references to this Agreement or to any other such document shall include any permitted variation, amendment or supplements to such document;

(c) references to any enactment, order, regulation or other similar instrument shall be construed as a reference to the enactment, order, regulation or instrument (including any EU instrument) as amended or re-enacted;

(d) references to a person includes firms and corporations and their successors and permitted assignees or transferees;

(e) words in this Agreement importing any one gender include both other genders and may be used interchangeably; and

(f) words in this Agreement importing the singular meaning, include the plural meaning and vice versa.

2. CONSENT TO SECURITY

2.1 The Board acknowledges notice of, and consents to, the security interest granted over Project Co's rights under the Board Project Documents[37] effected by Project Co in favour of the Senior Funders under the Security Documents.

2.2 The Board confirms that it has not received notice of any other security interest granted over Project Co's rights under the Board Project Documents.

2.3 Except as specifically provided for in this Agreement the Board has no obligations (whether express, implied, collateral or otherwise) to the Agent and/or the Senior Funders in connection with this Agreement or the Board Project Documents or the Project.

2.4 The Board acknowledges notice of and consents to the security interest granted by Hold Co in favour of the Agent over the entire issued share capital of Project Co.[38]

2.5 [For the purposes of Clause 34.3 of the Design Build Finance and Maintain Agreement, Project Co and the Agent hereby authorise and instruct the Board (and the Board agrees) to pay all sums payable to Project Co under the Board Project Documents to the [account] and Project Co and the Board agree that upon the occurrence of an Enforcement Event, if so directed in writing by the Agent upon giving reasonable notice[39], the Board shall pay any sum which it is obliged to pay to Project Co under the Board Project Documents to a bank account specified by the Agent.]

2.6 The Board shall not be obliged to make any enquiry as to the authority of the Agent in doing any act or entering into any document or making any agreement under or in connection with this Agreement and the Board shall be entitled to assume that the Agent is duly authorised by each of the Senior Funders to assume the obligations expressed to be assumed by it under this Agreement and to undertake on behalf of each Senior Funder in the terms of this Agreement so as to bind each Senior Funder as if it were a party hereto.

[37] It may be appropriate to incorporate an acknowledgement of the creation of security over other project documents (eg any leases to Project Co if applicable). It may also be appropriate to include in this clause an acknowledgement (if applicable) that Service Payments due from the Board are to be made to a designated account of Project Co held by the Agent.

[38] This clause is not mandatory and will only be relevant in cases where a holding company structure is adopted by the sponsors.

[39] The Board should not be exposed to the possibility that it may be too late to revoke a payment to Project Co which has already been set up, such that the Boards at risk of having to pay twice.

2.7 The rights of the Agent under this Agreement shall be extinguished upon the Final Payment Date.

3. NO TERMINATION WITHOUT NOTICE

3.1 Subject only to paragraph3.2, the Board may serve notice terminating the Design Build Finance and Maintain Agreement at any time if it is entitled to do so under the terms of the Design Build Finance and Maintain Agreement.

3.2 The Board shall not terminate or serve notice terminating the Design Build Finance and Maintain Agreement in respect of a Project Co Event of Default without giving to the Agent:

3.2.1 at least the Required Period of prior written notice (a "**Termination Notice**") stating:

(a) that a Project Co Event of Default has occurred and the proposed Termination Date; and

(b) the grounds for termination in reasonable detail, and

3.2.2 not later than the date falling twenty (20) Business Days after the date of a Termination Notice a notice containing details of any amount owed by Project Co to the Board, and any other liabilities or obligations of Project Co of which the Board is aware (having made proper enquiry) which are:

(a) accrued and outstanding at the time of the Termination Notice; and/or

(b) which will fall due on or prior to the end of the Required Period, under the Design Build Finance and Maintain Agreement.

3.3 On becoming aware of an Enforcement Event the Agent shall give notice thereof to the Board stating that an Enforcement Event has occurred and giving reasonable details thereof (an "**Enforcement Event Notice**") whereupon, subject to payment by the Agent of the Board's reasonable costs and expenses in respect thereof (being such costs and expenses as would not have been incurred in respect of the provision of such information had an Enforcement Event Notice not been served) the provisions of paragraph 3.2.2 shall apply as if references therein to a Termination Notice were to an Enforcement Event Notice.

4. NO LIQUID MARKET

4.1 At any time during the Required Period the Agent may issue a written notice (the "**No Liquid Market Notice**") to the Board setting out the reasons why the Agent does not believe that a Liquid Market exists.

4.2 On or before the date falling fourteen (14) Business Days after the date on which a No Liquid Market Notice is received by the Board, the Board shall notify the Agent of its opinion as to whether or not a Liquid Market exists. Where the Board believes that a Liquid Market does exist, such notice shall set out the reasons for the Board's belief. If the parties do not agree whether or not a Liquid Market exists, then either party may refer the dispute to be determined in accordance with paragraph 17 (*Disputes*) below.

4.3 If the parties agree or it is determined in accordance with Clause 56 (*Dispute Resolution Procedure*) of the Design Build Finance and Maintain Agreement that no Liquid Market exists, the Design Build Finance and Maintain Agreement shall automatically terminate and the provisions of paragraph 4 (*No Retendering Procedure*) of Section 2 (*Compensation for Project Co Default*) of Schedule Part 17 (*Compensation on Termination*) to the Design Build Finance and Maintain Agreement (*No Retendering*) shall apply.

4.4 If any dispute relating to this paragraph 4 (*No Liquid Market*) is determined pursuant to paragraph17, the Required Period shall be extended by the period of time spent determining such dispute pursuant to paragraph17.

5. REPRESENTATIVE

5.1 Subject to paragraph 5.2 and without prejudice to the Agent's rights under the Security Documents, the Agent may give the Board a Step-In Notice at any time:

5.1.1 during which a Project Co Event of Default or an Enforcement Event[40] is subsisting (whether or not a Termination Notice has been served); or

5.1.2 during the Required Period.

5.2 The Agent shall give the Board not less than 5 Business Days prior notice of:

5.2.1 its intention to issue a Step-In Notice; and

5.2.2 the identity of the proposed Appointed Representative.

5.3 On the issue of the Step-In Notice, the Appointed Representative shall assume jointly with Project Co the rights of Project Co under the Board Project Documents and thereafter, until the end of the Step-In Period the Board shall deal with the Appointed Representative and not Project Co.

[40] If Senior Funders are taking enforcement action, then there is no objection to there being a right of step-in, although in practice funders may not wish to step in if there is no Project Co Event of Default (and therefore no threat of termination of the Design Build Finance and Maintain Agreement).

6. STEP-IN PERIOD

6.1 Notwithstanding paragraph 3 (*No Termination Without Notice*) above, the Board may terminate the Design Build Finance and Maintain Agreement if:

6.1.1 any amount referred to in paragraph 3.2.2(a) above has not been paid to the Board on or before the Step-In Date; or

6.1.2 any amount referred to in paragraph 3.2.2(b) above has not been paid on or before the last day of the Required Period;

6.1.3 amounts, of which the Board was not aware (having made proper enquiry) at the time of the Termination Notice, subsequently become payable and are not discharged on or before the date falling twenty (20) Business Days after the date on which the liability of Project Co for these amounts is notified to the Agent or if later the Step-In Date; or

6.1.4 grounds arise after the Step-In Date in accordance with the terms of the Design Build Finance and Maintain Agreement provided that Deductions and/or Warning Notices that arose pursuant to Schedule Part 14 (*Payment Mechanism*) to the Design Build Finance and Maintain Agreement prior to the Step-In Date shall not be taken into account during the Step-In Period but such Deductions and/or Warning Notices (to the extent applicable under the terms of the Design Build Finance and Maintain Agreement) shall be taken into account after the Step-Out Date.

6.2 The Board shall not terminate the Design Build Finance and Maintain Agreement during the Step-In Period on grounds:

6.2.1 that the Agent has served a Step-In Notice or enforced any Security Document; or

6.2.2 arising prior to the Step-In Date of which the Board was aware (having made proper enquiry) and whether or not continuing at the Step-In Date unless:

(a) the grounds arose prior to the Actual Completion Date, and the Actual Completion Date does not occur on or before the date twelve (12) months after the date on which the Board would have been entitled to terminate the Design Build Finance and Maintain Agreement for non-completion of the Works under Clause 40.1.2 (*Long stop*) of the Design Build Finance and Maintain Agreement; or

(b) the grounds arose after the Actual Completion Date, and neither the Appointed Representative nor Project Co is using all reasonable endeavours (including implementation

of any remedial programme) to remedy any breach of the Design Build Finance and Maintain Agreement which:

(i) arose prior to the Step-In Date; and

(ii) is continuing (and capable of remedy); and

(iii) would have entitled the Board to terminate the Design Build Finance and Maintain Agreement; or

(c) the grounds (whenever they first arose) did not give rise to any right to terminate until after the Step-In Notice; or

6.2.3 arising solely in relation to Project Co

7. STEP-OUT

7.1 The Appointed Representative may at any time during the Step-In Period deliver to the Board a Step-Out Notice which shall specify the Step-Out Date.

7.2 On expiry of the Step-In Period:

7.2.1 the Appointed Representative will be released from all of its obligations and liabilities to the Board under the Board Project Documents arising prior to the end of the Step-In Period and rights of the Appointed Representative against the Board will be cancelled;[41] and

7.2.2 the Board shall no longer deal with the Appointed Representative and shall deal with Project Co in connection with the Board Project Documents.

7.3 Project Co shall continue to be bound by the terms of the Design Build Finance and Maintain Agreement, notwithstanding the occurrence of a Step-In Notice, a Step-In Period, a Step-Out Notice, Step-Out Date, any action by the Agent or Appointed Representative or the Senior Funders and/or any provision of this Agreement.

8. NOVATION

8.1 Subject to paragraph8.2, at any time:

[41] The effect of this provision is that rights and obligations which are outstanding from the Step-in Period are preserved and will be reflected in the amount of compensation payable by the Board on early termination of the Design Build Finance and Maintain Agreement. It is not therefore necessary for the Board to retain rights of action against the Appointed Representative after the end of the Step-in Period.

8.1.1 after an Enforcement Event has occurred; or

8.1.2 during the Step-In Period,

the Agent may, subject to paragraph8.2, on not less than twenty (20) Business Days' prior notice to the Board and any Appointed Representative, procure the transfer of Project Co's rights and liabilities under the Board Project Documents to a Suitable Substitute Contractor in accordance with the provisions of paragraph8.4.

8.2 The Board shall notify the Agent as to whether any person to whom the Agent proposes to transfer Project Co's rights and liabilities under the Board Project Documents is a Suitable Substitute Contractor, on or before the date falling twenty (20) Business Days after the date of receipt from the Agent of all information reasonably required by the Board to decide whether the proposed transferee is a Suitable Substitute Contractor.

8.3 The Board shall not unreasonably withhold or delay its decision on whether the proposed transferee is a Suitable Substitute Contractor and it shall, without limitation, be reasonable for the Board to withhold its consent if there are unremedied breaches under the Board Project Documents and there is no rectification plan reasonably acceptable to the Board in respect of the breaches.

8.4 Upon the transfer referred to in paragraph 8.1 becoming effective:

8.4.1 Project Co and the Board will be released from their obligations under the Board Project Documents to each other (the "discharged obligations");

8.4.2 the Suitable Substitute Contractor and the Board will assume obligations towards each other which differ from the discharged obligations only insofar as they are owed to or assumed by the Suitable Substitute Contractor instead of Project Co;

8.4.3 the rights of Project Co against the Board under the Board Project Documents and vice versa (the "**discharged rights**") will be cancelled;

8.4.4 the Suitable Substitute Contractor and the Board will acquire rights against each other which differ from the discharged rights only insofar as they are exercisable by or against the Suitable Substitute Contractor instead of Project Co;

8.4.5 any then subsisting ground for termination of the Design Build Finance and Maintain Agreement by the Board shall be deemed to have no effect and any subsisting Termination Notice shall be automatically revoked;

8.4.6 the Board shall enter into a direct agreement with the Suitable Substitute Contractor and a representative of Senior Funders lending to the Suitable Substitute Contractor on substantially the same terms as this Agreement; and

8.4.7 any Deductions and/or Warning Notices that arose pursuant to Schedule Part 14 (*Payment Mechanism*) [or due to [unavailability]] prior to that time shall, without prejudice to the rights of the Board to make financial deductions, not be taken into account in determining whether a Project Co Event of Default has occurred.

9. MISCELLANEOUS

9.1 The Board shall at Project Co's expense, take whatever action the Agent, an Appointed Representative or a Suitable Substitute Contractor taking a transfer in accordance with paragraph 8.1 may require for perfecting any transfer or release under paragraph 5 (*Representative*) above, paragraph 7 (*Step-Out*) above and paragraph 8 (*Novation*) above including the execution of any transfer or assignment, and the giving of any notice, order or direction and the making of any registration which, in each case, the Agent or Appointed Representative or Suitable Substitute Contractor reasonably requires.

9.2 The Board shall not take any action to wind up, appoint an administrator or sanction a voluntary arrangement (or similar) in relation to Project Co.

9.3 This Agreement shall remain in effect until the earlier of:

9.3.1 the Final Payment Date;

9.3.2 the date of termination of the Design Build Finance and Maintain Agreement; or

9.3.3 the date of transfer of Project Co's rights and liabilities under the Board Project Documents to a Suitable Substitute Contractor pursuant to paragraph 9.1 above.

9.4 The Agent, in respect of paragraphs9.4.1, 9.4.2and9.4.3, and Project Co, in respect of paragraph 9.4.4 shall promptly notify the Board of:

9.4.1 any Enforcement Event and any action taken in connection with such Enforcement Event, any decisions to accelerate the maturity of any amounts owing by Project Co to the Senior Funders under the Senior Funders Agreement and/or any decisions to demand repayment;

9.4.2 the date referred to in paragraph 9.3.1 above on or before the date falling twenty (20) Business Days after its occurrence:

9.4.3 the details and amount of any proposed Additional Permitted Borrowing including:

(a) the circumstances giving rise to it and reasons for it; and

(b) the terms on which it will be borrowed;

9.4.4 on the first Business Day of each calendar month during which any Additional Permitted Borrowing is, or may be, subsisting, the amount outstanding under the Senior Funding Agreements (as the same may be amended (whether or not with the approval of the Board))and, to the extent it is aware (having made reasonable and proper enquiry);

(a) the amount of any [Distribution] made by Project Co; and

(b) the amount of any credit balance on any account of Project Co.[42]

9.5 Project Co joins in this Agreement to acknowledge and consent to the arrangements set out and agrees not knowingly to do or omit to do anything that may prevent any party from enforcing its rights under this Agreement.

9.6 For the avoidance of doubt, if there is any conflict or inconsistency between the provisions of this Agreement and the Design Build Finance and Maintain Agreement, the provisions of this Agreement shall prevail.

9.7 Notwithstanding any provision in the Collateral Agreements to the contrary, the Board agrees that, subject to paragraphs 9.8 and9.9, it will not, in respect of any particular Collateral Agreement, exercise or seek to exercise any of its step-in rights or other rights (other than design, intellectual property or similar rights) under such Collateral Agreement until the earliest of:

9.7.1 the Senior Debt Discharge Date; or

9.7.2 the date on which the Agent has given its written consent to such exercise; or

9.7.3 the time when in respect of any such Collateral Agreement either:

(a) the Senior Funders have failed to exercise any corresponding

[42] For a Bond Transaction, 9.4.4 may be replaced by a new clause as follows if the Board think this is appropriate:
(a) on each [Payment Date] during which any Additional Permitted Borrowing is, or may be, subsisting, the amount outstanding under the Senior Funding Agreements and to the extent it is aware (having made reasonable and proper enquiry);
(b) on each [Payment Date] and the first Business Day of each calendar month following a Distribution made by Project Co the amount of any Distribution made; and
(c) on each [Payment Date] and on the first Business Day of each calendar month following 5 Business Days written notice from the Board the amount of any credit balance on any account of Project Co.

right to such Collateral Agreement under their own Security Documents and the time for exercising such right has ended in accordance with the terms thereof; or

(b) the Agent has confirmed in writing to the Board (following any request from the Board for such confirmation, to which the Agent shall be obliged to respond promptly) that it does not intend to exercise any of its rights under the relevant Security Document or that it has no further claim thereunder; or

(c) the Senior Funders have stepped in to or otherwise directly or indirectly taken control over the rights of Project Co under the relevant Sub-Contract (in accordance with their rights under their Security Documents) and then stepped out from, or otherwise relinquished control of such rights under or in connection with such Sub-Contract; or

9.7.4 the date falling [ ] months after the date on which the Design Build Finance and Maintain Agreement has been terminated in accordance with its terms and the terms of this Agreement.

9.8 In addition to its rights under paragraph9.7, where the Design Build Finance and Maintain Agreement has not been terminated but a counterparty has a right to terminate its Sub-Contract for breach by Project Co of the terms of such Sub-Contract the Board may pay directly, or undertake to make a payment directly to the counterparty concerned, amounts due pursuant to the Sub-Contract and may set off any such sums against any payments payable by the Board to Project Co under the Design Build Finance and Maintain Agreement so as to satisfy them pro tanto, provided always that the Board shall not exercise its rights under this paragraph 9.8 in respect of any particular Sub-Contract in circumstances where the Senior Funders have stepped in to or otherwise directly or indirectly taken control over the relevant Sub-Contract and have not stepped out of it or otherwise relinquished such control.

9.9 In addition to its rights under paragraph9.7, where the Design Build Finance and Maintain Agreement has been terminated, the Board shall from the Termination Date be able to exercise any of its step-in rights or other rights under or in respect of any of the Collateral Agreements; however notwithstanding the terms of the Collateral Agreements or any other provisions of this paragraph9.9, each of the relevant Sub-Contractors (and any guarantors thereof as relevant) shall remain responsible, and be liable, to Project Co in respect of all costs, claims, damages, losses and liabilities which shall have arisen out of or in connection with the relevant Sub-Contracts in respect of the period prior to the Termination Date in relation to which the Agent acting on behalf of Project Co and the Senior Funders shall retain the benefit of all and any rights to all such costs, claims, damages, losses and liabilities.

9.10 Except in accordance with the provisions of paragraphs 9.7 to 9.9(inclusive) the Board shall not, prior to the Senior Debt Discharge Date:

9.10.1 claim, recover, retain or receive (or seek to claim, recover, retain or receive) any amount under the Collateral Agreements;

9.10.2 take any action to wind-up, appoint an administrator, seek an interim order appointee (under paragraph 3(b) of the Insolvency Act 1986 (as amended)) or sanction a voluntary arrangement (or similar) in relation to any Sub-Contractors; or

9.10.3 save with the prior written consent of the Agent, compete on grounds (whether in whole or in part) relating to the Project (by virtue of a claim under any of the Collateral Agreements, the Design Build Finance and Maintain Agreement or any other Project Document or otherwise) with the rights of the Senior Funders on any formal insolvency of any Sub-Contractor or Project Co, nor claim to be subrogated to the rights of any Senior Funders.

9.11 The Board agrees and undertakes that if it receives any amount in contravention of the provisions of paragraph 9.10 above it will promptly turn the same over to the Agent and pending such payment hold the same on trust for the Agent and the Senior Funders.

9.12 Notwithstanding the terms of the Design Build Finance and Maintain Agreement and Security Documents, the Agent agrees that the Board may exercise its rights to have transferred to it or its nominee any Unrestricted Assets following the Termination Date and the Agent will not exercise or seek to exercise any enforcement rights and shall on or before the date any Unrestricted Assets are transferred to the Board or its nominee, as the case may be, release its security over them.

9.13 Notwithstanding the terms of any Senior Funding Agreements, the parties agree and shall, to the extent it is within their power, direct that all insurance proceeds receivable or received by Project Co under the insurances referred to in Clause 53 (*Insurance*) of the Design Build Finance and Maintain Agreement shall be paid directly into the Insurance Proceeds Account and applied in accordance with the Design Build Finance and Maintain Agreement.

10. ASSIGNATION

10.1 No party to this Agreement may assign or transfer any part of its rights or obligations under this Agreement save as provided in this paragraph 10 (*Assignation*).

10.2 The Agent may assign, novate or transfer its rights and obligations under this Agreement and in respect of the Security Documents to a successor Agent in accordance with the Senior Funding Agreements without the consent of the Board and any such assignation novation or transfer shall not constitute a Change of Control for the purposes of Clause 58.6 of the Design Build Finance and Maintain Agreement. The Board also agrees that any enforcement by the Agent of the security referred to in paragraph 2.5 above (and any subsequent transfer of share capital in Project Co) following an Enforcement Event shall not constitute a Project Co Event of Default under Clause 40.1.6 (*Change in Control*) of the Design Build Finance and Maintain Agreement.

10.3 Any Senior Funder may assign or transfer its rights under the [Senior Funding Agreements] in accordance with the terms of the [Senior Funding Agreements].

10.4 The Board may transfer its rights and obligations under this Agreement to any permitted assignee of its interest in the Design Build Finance and Maintain Agreement and the Agent and the Senior Funders shall co-operate with the Board in completing the formalities of any transfer or assignment including by executing any additional documents as may be required by the Board.

10.5 If paragraph 10.2 applies in relation to the Agent, the Board shall enter into a new direct Agreement with the new Agent on substantially the same terms as this Agreement.

11. ENTIRE AGREEMENT

Unless otherwise stated in this Agreement, this Agreement and the Board Project Documents constitutes the entire agreement between the parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings concerning the subject matter of this Agreement. No party has relied on any representation except as expressly set out in this Agreement.

12. WAIVER

12.1 The failure of any party to exercise any contractual right or remedy shall not constitute a waiver thereof until communication in writing under paragraph12.2.

12.2 No waiver shall be effective unless it is communicated in writing to the other party.

12.3 A waiver of any right or remedy arising from a breach of contract shall not constitute a waiver of any right or remedy arising from any other breach of this Agreement.

13. SEVERABILITY

If any term, condition or provision contained in this Agreement shall be held to be invalid, unlawful or unenforceable to any extent, such term, condition or provision shall not affect the validity, legality or enforceability of the remaining parts of this Agreement.

14. CONFIDENTIALITY

The Agent shall be bound to comply with the obligations on the part of Project Co contained in Clause 61 (*Confidentiality*) of the Design Build Finance and Maintain Agreement in relation to all information and matters obtained from any other party under or in connection with the Project.

15. NOTICES CONSENTS AND APPROVALS

15.1 Any notice served under or in connection with this Agreement is to be in writing and shall be deemed to have been served:-

15.1.1 if delivered at the time of delivery; or

15.1.2 if posted at noon (Greenwich mean time) one Business Day after posting; or

15.1.3 if set by fax at the time shown in the relevant transmission report for the complete fax.

provided that a notice or other communication received on a non-Business Day or after 5p.m. in the place of receipt shall be deemed to be received at 9a.m. on the next following Business Day in such place.

15.2 Any notice to be given to the Board should be marked for the attention of [ ] and delivered to [ ] or faxed to [ ] or such other party or address or fax number as notified in writing to the Agent by the Board.

15.3 Any notice to be given to the Agent should be marked for the attention of [ ] and delivered to [ ] or faxed to [ ] or such other party address or fax number as notified in writing to the Board by the Agent.

15.4 Any consent or approval under this Agreement is required to be obtained before the act or event to which it applies is carried out or done and is to be treated as effective only if the consent or approval is given in writing.

16. SURVIVORSHIP

Notwithstanding the provisions of paragraph 9.3.2 and paragraphs 9.7 to 9.13 (inclusive) (*Miscellaneous*) shall survive termination of this Agreement.

17. DISPUTES

17.1 All disputes shall be resolved in accordance with terms equivalent (mutatis mutandis) to the Dispute Resolution Procedure set out in the Design Build Finance and Maintain Agreement.

17.2 Project Co, the Board and the Agent shall co-operate to facilitate the proper, just, economical and expeditious resolution of any and all such disputes which arise under this Agreement.

18. GOVERNING LAW

18.1 Subject to paragraph 17 (*Disputes*) above, this Agreement is governed by the laws of Scotland.

18.2 The parties agree that the courts of Scotland shall have exclusive jurisdiction to hear and settle any action, suit, proceeding or dispute in connection with this Agreement and irrevocably submit to the jurisdiction of those courts.

IN WITNESS WHEREOF:

SCHEDULE PART 5

LAND MATTERS

SECTION 1 – TITLE CONDITIONS[43]

1. Little France Steading has the benefit of the following rights:

   1.1 a servitude right to lay and thereafter maintain a pipe connecting Little France Steading to the main sewer running through the Campus Site to the northwest of Little France Steading, subject to causing as little inconvenience as possible during pipe laying operations and making good any damage caused to the surface of the said subjects occasioned by the laying of the pipe or the maintenance thereof;

   1.2 a right to enter that part of the Campus Site lying to the northeast of Little France Steading in so far as this may be necessary for the repair, maintenance or renewal of the buildings erected on these subjects.

2. 217 Old Dalkeith Road has the benefit of a heritable and irredeemable servitude right of access and egress for vehicular and pedestrian traffic in all time coming over that part of the access road shown on Plan 9 as is required to give access to 217 Old Dalkeith Road.

3. There are reserved in favour of the local or public authorities and statutory undertakers, utilities companies or organisations and the like all necessary rights of access for the installation, repair, maintenance, cleaning and renewal of all electric and telegraphic cables, water, gas and drainage pipes, sewers, soil, waste and water supply pipes and all other cables, pipes and transmitters and other services serving the Site provided that such rights may be exercised by any local or public authority or statutory undertaker or utility company or organisation without any liability on the part of the Board.

4. Use of the Campus Site by Project Co

Project Co and any Project Co Parties shall not be permitted to use any part of the Campus Site (including, without prejudice to the foregoing generality, the car parks, shops, restaurants, toilets, concourses and corridors forming the Campus Site except (a) as otherwise provided for in this Agreement, or (b) with the express permission of the Board, or (c) with regard to the accident and emergency department within the RIE Facilities, in the case of a medical emergency.

5. The following title conditions apply from the date upon which the Board notifies Project Co of that they shall have effect:

   5.1 A right of access and egress for pedestrians and vehicles over the Access Roads (Future) in favour of each Campus Party.

   5.2 Project Co shall not park or leave unattended or cause or permit to be left parked or unattended any vehicles, trucks or trailers on or otherwise in any way obstruct, cause or permit to be obstructed any part of the Access Roads (Future).

   5.3 The Campus Site is subject to an absolute prohibition in all time coming on the use of any part of the Site for any purpose falling within Classes 5 and 6 of the Schedule to the Town and Country Planning (Use Classes) (Scotland) Order 1997.

[43] Title Conditions in respect of Plots 14 and 16 to be advised by the Board during the Dialogue Period.

5.4 Each Campus Party have the benefit of rights to connect into mains services running through the Campus Site and any service media and the right to lay, construct, maintain and repair gas, water, drainage and sewage pipes and telephone cables and wires through the Campus Site along routes to be agreed with the relevant Campus Party who shall be bound to act reasonably in this regard subject to the following provisos:

5.4.1 the Campus Party exercising the rights shall be responsible for obtaining and complying with all necessary statutory and other consents and approvals required in connection with the works involved in relation to such connection and the installation of such pipes and conduits;

5.4.2 the Campus Party exercising the foregoing rights shall do so at reasonable times (upon prior appointment except in the case of emergency) and shall do so in such a manner as to cause the least disturbance and inconvenience reasonably practicable to the relevant part of the Campus Site or the business being carried out thereon;

5.4.3 the Campus Party exercising the foregoing rights shall pay compensation to the owner of that part of the Campus Site affected by the exercise of the foregoing rights for any loss or physical damage caused to any part of the Campus Site and any buildings, structures or others erected thereon, or any plant, equipment and moveable items located thereon, (such rights of compensation to be agreed between the parties, or failing such agreement as determined by the Chairman of the Scottish Branch of the Royal Institute of Chartered Surveyors).

SECTION 2 – RESERVED RIGHTS

1 To each Campus Party the full free and uninterrupted passage and running of water, sewage, drainage or oil, gas, electricity, telephone (and other telecommunications) and other services through the Campus Site by or through the pipes, channels, drains, sewers, conduits, water courses, wires, cables and other conducting media which currently or at any time in the future may be located within the Campus.

2 To each Campus Party or any party on behalf of any of them, the right to connect into and maintain, repair and renew existing pipes, channels, drains, sewers, conduits, water courses, wires, cables and other conducting media through, under and over the Retained Site for the passage of services referred to in paragraph 1.

3. To each Campus Party or any party on behalf of any of them, the right to maintain, repair and renew existing pipes, channels, drains, sewers, conduits, water courses, wires, cables and other conducting media through, under and over the Site for the passage of services referred to in paragraph 1 above subject to the following conditions:

3.1 this right is exercisable on reasonable prior notice being given (except in an emergency) to Project Co;

3.2 the right shall be exercised in such a manner as shall cause the minimum practicable disruption to the use and occupation of the Site;

3.3 the Board shall procure that any physical damage to the Site and any buildings, structures and others erected thereon and any plant, machinery and equipment resulting from the exercise of the rights is made good.

4. To each Campus Party or any party on behalf of any of them, a right of access over the Site where necessary in connection with the carrying out of works of maintenance, repair and

renewal to the Retained Site and/or Retained Estate.

5. To the Board and/or any Board Party and/or Consort and/or any Consort Party or any party on behalf of them, a right of overhang in respect of the canopy forming part of the RIE Facilities at the A&E entrance and a right to retain pillars supporting the said canopy, for so long as they subsist (in their existing form or as replaced or renewed from time to time) to the extent that such pillars or canopy are within the remainder of the RIE Facilities together with all rights of access over the Site where necessary for the purposes of carrying out any works of maintenance, repair, renewal or replacement of the canopy and pillars, provided that the rights in this paragraph 5 shall cease to be enforceable following the permanent dismantling and removal of the canopy and pillars.

6. To the Board and/or any Board Party and/or the University and/or any University Party a right of pedestrian and vehicular access over the Access Roads.

7. To the Board and/or any Board Party and/or the University and/or any University Party, a right of access and egress for pedestrians and cycles over the footpaths and cycle routes on the Retained Site as shall be provided from time to time for general use by members of the public;

8. To the Board and/or any Board Party or any party acting on their behalf all necessary rights required for the maintenance and cleansing of the Niddrie Burn.

9. To the Board and/or any Board Party and/or Consort and/or any Consort Party, an exclusive right of occupation over the RIE Site, subject to the Reserved Rights and the Ancillary Rights.

10. To the Board and/or any Board Party and/or the University and/or any University Party, an exclusive right of occupation over the University Site;

11. To each Campus Party or any party on behalf of any of them a right to inspect, maintain, repair, renew and/or replace any service media, buildings, structures and others erected thereon and any plant, machinery and equipment located within or adjacent to any part or parts of the Access Areas which are occupied and/or hoarded off by Project Co or a Project Co Party pursuant to Section 5 *(Access Areas, Drainage and Substation)* of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement, and if any such party requires to access such areas to inspect, maintain, repair, renew and/or replace aforesaid then the following provisions shall apply:

    11.1 except in the case of an emergency, the Board shall give Project Co reasonable prior notice of the requirement to enter such areas;

    11.2 Project Co shall provide the Board and/or any Board Party, and/or Consort and/or any Consort Party and/or the University and/or any University Party and/or any party authorised by them with the level of access required to implement their obligations and/or exercise their rights in regard to such service media, buildings, structures and others erected thereon and any plant, machinery and equipment; and

    11.3 the Board shall use reasonable endeavours to procure that Consort and the University shall in exercising the rights pursuant to this paragraph 11 cause as little inconvenience as is reasonably practicable to Project Co; and

    11.4 the Board shall use reasonable endeavours to procure that Consort and University in exercising the rights pursuant to this paragraph 11 shall comply with Project Co's reasonable site rules and requirements which are applied in accordance with Good Industry Practice.

12. To each Campus Party, or any party on behalf of any of them, a right to inspect, maintain,

repair, renew and/or replace service media buildings, structures and others erected thereon and any plant, machinery and equipment, located within any parts of Car Park E which are occupied by Project Co or a Project Co Party and/or are hoarded off pursuant to Section 3 *(Site Compound/Car Park E)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A *(Interface With Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and if any such party requires to access such areas to inspect, maintain, repair, renew and/or replace aforesaid then the following provisions shall apply:

12.1 Except in the case of an emergency where no prior notice is required, the Board shall give Project Co reasonable prior notice of the requirement to enter Car Park E and/or the relevant part;

12.2 Project Co shall provide the Board and/or any Board Party and/or Consort and/or any Consort Party, and the University and/or University Party and/or any party authorised by them with the level of access required to exercise their rights and/or implement their obligations in regard to such service media buildings, structures and others and any plant, machinery and equipment and without prejudice to the foregoing generality shall ensure that the areas under which the such service media, buildings, structures and others and any plant, machinery and equipment are located are not obstructed; and

12.3 The Board shall use reasonable endeavours to procure that Consort and/or the University shall in exercising the rights pursuant to this paragraph 12 cause as little inconvenience as is reasonably practicable to Project Co.

13. To the extent that the gas pipe serving the RIE Site and/or RIE Facilities is located within the Site Project Co shall comply with the conditions and restrictions in paragraph 6.1.2 of Sub-Section C of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and there shall be reserved to the Board and/or any Board Party and/or Consort and/or any Consort Party and/or any party on behalf of any of them, rights of access to the Site to the extent required to maintain, repair, replace and renew the gas pipe and all necessary rights to maintain, repair, replace and renew the gas pipe.

14. To the extent that the Sewer serving the RIE Site and/or RIE Facilities and other neighbouring properties on and off the Campus Site part of which is located within the Site as shown in Plan 11 which forms part of the Disclosed Data, Project Co shall comply with the conditions and restrictions in paragraph 6.1.1 of Sub-Section C of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and there shall be reserved to the Board and/or any Board Party and/or Consort and/or any Consort Party and/or any party on behalf of any of them, rights of access to the Site to the extent required to maintain, repair, replace and renew the Sewer and all necessary rights to maintain, repair, replace and renew the Sewer.

15. To each Campus Party and/or any party on behalf of any of them and other restrictions, reservations and others contained in Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and in each of the Interface Proposals.

SECTION 3 – ANCILLARY RIGHTS

The following Ancillary Rights are granted to the extent required for the purpose of implementing the Works, performing the Services and fulfilling Project Co's rights and obligations under this Agreement:-

1. Occupancy

A non exclusive right to enter and remain on the Site;

[44][2. Construction Access over the Yellow Area

[TO BE USED IF SOLUTION UTILISES ACCESS ROUTE OVER YELLOW AREA]

Project Co shall have the right to:-

(a) form a dedicated access route which may comprise a temporary road or bridge, or a combination of both over and across the Yellow Area, (the "**Construction Access**")

(b) hoard off the Construction Access from the remainder of the Yellow Area, and

(c) use the Construction Access during the Construction Phase for access to and/or egress from the Site at all times for all kinds of construction traffic and pedestrians;

subject to Project Co complying with and carrying out such works and hoarding off in accordance with the provisions of paragraph 1 of Section 1 *(Construction Access)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the Construction Access Proposal.

3 Construction Access over the Orange Area

[TO BE USED IF SOLUTION UTILISES ACCESS ROUTE OVER ORANGE AREA]

Project Co shall have the right to take construction access to and egress from the Site for the carrying out and completion of the Works over the Orange Area subject to Project Co complying with and carrying out the Works over the Orange Area in accordance with the provisions of paragraph 2 of Section 1 *(Construction Access)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix *A (Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the TMS.

4. Access Areas

Project Co shall have the right during the Construction Phase as part of the Works:-

4.1 to enter upon and occupy on an exclusive basis and where necessary hoard off from the remainder of the RIE Site any part or parts of the Access Areas in connection with the exercise of the rights granted in terms of the Access Strategy;

4.2 to carry out works to form pedestrian and vehicular accesses to and from the Site onto the Orange Area;

4.3 to reconfigure the roads, footpaths and landscaped areas within the Hatched Orange

[44] Construction Access may be taken over the Yellow Area. It is preferred that construction access is taken over the Yellow Area.
In a number of circumstances and subject to a number of further provisos which are detailed in the ITPD, it is possible for construction access to be taken over the Orange Area at the Board's sole option.
It is expected that the route and methodology of the construction access will be resolved prior to financial close. In the event that construction access over the Yellow Area is not required in terms of the successful bid, paragraph 2 will be deleted. In the event that construction access is not required over the Orange Area, paragraphs 3 and 4 will be amended to delete any rights granted over the Orange Area in respect of construction access. Reserved Right 6 will also require to be amended to reflect the construction access methodology.

Area;

4.4 to install new surface water drainage connections from the Site to the existing surface water drain within the Orange Area; and

4.5 to carry out works to form a cycle path and reconfigure the landscaped areas within the Yellow Area;

subject to Project Co complying with the conditions in Section 5 *(Access Areas, Drainage and Substation)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A (Interface with Campus Site and/or Campus Facilities) of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the Access Strategy, and in relation to the matters in the foregoing paragraph 4.1.4 the Initial Drainage Proposal and the Supplemental Drainage Proposal and where applicable the Amended Drainage Proposal and/or Access Strategy agreed or determined pursuant to Section *2 (Access Areas and Amended Drainage Proposals)* of Part 2 *(Interface Proposals Procedure)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement.

5. Substation Access and Cables

Project Co shall have the right to:-

5.1 install an electricity substation within the Substation Site;

5.2 to construct an access road within the Substation Access Area from the road shown shaded pink and hatched black on Plan 2 to the Substation Site to provide pedestrian and vehicular access to and egress from the electricity substation to be constructed within the Substation Site;

5.3 install an electricity cable from the electricity substation to be installed on the Substation Site to Old Dalkeith Road along the Substation Cable Route;

5.4 thereafter use, maintain, repair and renew the electricity substation;

subject to Project Co complying with the conditions in Section 5 *(Access Areas, Drainage and Substation)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the Access Strategy and the Substation Proposal, and where applicable, any Access Strategy agreed or determined pursuant to Section 2 *(Access Areas and Amended Drainage Proposals)* of Part 2 *(Interface Proposals Procedure)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement.

6. **Service Strip and Foul Service Strip**

Project Co shall have the right to construct and lay and thereafter maintain, repair and renew service media through, under and over (1) the Service Strip for the passage of water, sewage, drainage or oil, gas, electricity, telephone (and other telecommunications), and (2) the Foul Service Strip for the passage of foul drainage, in each case as necessary in connection with the Works but subject to Project Co complying with the conditions in Section 6 (Service Strip and Foul Service Strip) of Part 1 (Interface Construction Issues and Interface Proposals) of Appendix A (Interface with Campus Site and/or Campus Facilities) of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement, and the Service Proposal and/or where applicable any Amended Service Proposal agreed or determined pursuant to Section 3

(Amended Service Proposal) of Part 2 *(Interface Proposals Procedure)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement.

7. **Link Building**

Following the construction of the Link Building to the RIE Facilities within the Connection Area, Project Co shall be entitled: -

7.1 to form a connection from the Facilities to the Link Building;

7.2 to install and thereafter maintain, repair and renew interface links between the fire alarm and security systems within the Facilities with those within the RIE Facilities;

7.3 to install and thereafter maintain, repair and renew the PTS; and

7.4 to install and thereafter maintain, repair and renew the ICT,

subject to Project Co complying with the conditions in Section 7 *(Link Building)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the Connection Proposal.

8. **Site Compound/Car Park E**

During the Construction Phase Project Co shall be entitled to occupy Car Park E and where necessary hoard off and segregate Car Park E or the relevant part thereof being occupied from the remainder of the Campus Site subject to Project Co complying with the conditions in Section 3 *(Site Compound/Car Park E)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the Interface Proposals.

9. **Oversail**

Project Co shall be permitted to oversail parts of the Retained Site with the jib and/or counterweight of any crane subject to Project Co complying with the requirements in Section 4 *(Oversail)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the Oversail Strategy and/or where applicable any Additional Oversail Strategy agreed or determined pursuant to Section 1 *(Oversail)* of Part 2 *(Interface Proposals Procedure)* of Appendix A (Interface with Campus Site and/or Campus Facilities) of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement.

10. **Operational Access**

10.1 During the Operational Term Project Co shall have the following rights of access to and egress from the Site: -

10.1.1 (until adoption by the relevant authority for use as a public road) for pedestrians and vehicles (excluding heavy construction traffic) over and across the roads and footpaths shown coloured blue, coloured yellow and coloured pink and also hatched black (excluding the section of road coloured pink but unhatched) on Plan 6;

10.1.2 for pedestrians and vehicles (excluding heavy construction traffic) over and across

the roads and footpaths shown coloured pink (excluding the section of road coloured pink and hatched black) on Plan 6 until such time as the Board notify Project Co in writing that access over this area shall no longer be permitted;

10.1.3 at all times for pedestrians only from Old Dalkeith Road over the Service Strip.

10.2 During the Operational Term Project Co shall have a right of access over the RIE Site where necessary in connection with the carrying out of works of maintenance, repair and renewal to the RIE Facilities subject to Project Co complying with the conditions in paragraph 1 of Section 2 *(Operational Construction Issues)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A *(Interface with Campus Site and/or Campus Facilities)* of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time) of this Agreement and the Interface Proposals.

10.3 During the Operational Term Project Co shall have a right of access to the Service Strip and the Foul Service Strip to repair, maintain and renew service media serving the Facilities located within the Service Strip or the Foul Service Strip subject to Project Co complying with the terms of Section 6 *(Service Strip and Foul Service Strip)* of Part *1 (Interface Construction Issues and Interface Proposals)* of Appendix A of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with this Agreement) and the Service Proposal, and where applicable any Amended Service Proposal agreed or determined pursuant to Section 3 *(Amended Service Proposal)* of Part *2 (Interface Proposals Procedure)* of Appendix A of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with this Agreement.

10.4 During the Operational Term Project Co shall have a right of access to the RIE Facilities to repair, maintain and renew the interface links between the fire alarm and security systems, PTS and ICT to be installed to be installed pursuant to Section 7 *(Link Building)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with this Agreement) subject to Project Co complying with Section 7 *(Link Building)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with this Agreement) and the Connection Proposal.

10.5 During the Operational Term Project Co shall have a right of access to the Substation Cable Route to repair, maintain and (where necessary) renew the electricity cable to be installed pursuant to paragraph 8 of Section 5 *(Access Areas, Drainage and Substation)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with this Agreement), subject to Project Co complying with Section 5 *(Access Areas, Drainage and Substation)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of Appendix A of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with this Agreement), and where applicable with paragraph 1 of Section 2 *(Operational Construction Issues)* of Part 1 *(Interface Construction Issues and Interface Proposals)* of said Appendix A, the Access Strategy and the Substation Proposal and where applicable any Access Strategy agreed or determined pursuant to Section 2 *(Access Areas and Amended Drainage Proposal)* of Part 2 *(Interface Proposals Procedure)* of Appendix A of Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* (as varied, amended or supplemented from time to time in accordance with this Agreement, and any relevant Service Proposal and where applicable any Amended Service Proposal agreed or determined pursuant to Section 3 *(Amended Service Proposal)* of Part 2 *(Interface Proposals Procedure)* of said Appendix A.

11. Wherever in this Schedule Part 5 *(Land Matters)* (as varied, amended or supplemented from

time to time in accordance with this Agreement) Project Co has an obligation to perform or comply with any matter, Project Co shall procure that Project Co Parties shall perform or comply with any such matter.

SCHEDULE PART 6

CONSTRUCTION MATTERS

SECTION 1

PLANNING/CONSENTS

SECTION 2

SAFETY DURING CONSTRUCTION

1 In this Section 2 (*Safety During Construction*) of Schedule Part 6 (*Construction Matters*) and wherever used elsewhere in this Agreement:

1.1 "**CDM Regulations**" means the Construction (Design and Management) Regulations 2007 (and "**CDM Regulation**" shall be construed accordingly); and

1.2 "the **client**", "**the CDM Co-ordinator**" and "the Executive" shall have the same meanings as are ascribed to them in the CDM Regulations.

2 In so far as not already done, within five (5) Business Days of the date of execution of this Agreement, Project Co shall make and serve on the Board a declaration pursuant to and in the form (if any) required by CDM Regulation 8 that Project Co will act as the client in relation to the Works for all the purposes of the CDM Regulations. Notwithstanding the election made by Project Co in relation to CDM Regulation 8, the Board will comply with its remaining obligations as set out in CDM Regulation 8. During the Project Term, Project Co shall not, and shall not seek to, withdraw, terminate or in any manner derogate from its declaration that it will act as, and its acceptance of its responsibilities as, the client in relation to the Works for all the purposes of the CDM Regulations. The Board will endorse its consent, in writing, to such election on the said election and return it to Project Co within five (5) Business Days of receipt.

3 Project Co warrants that it has the competence, resources and capacity to, and shall, observe, perform and discharge or shall procure the observance, performance and discharge of:

3.1 all the obligations, requirements and duties of the client arising under the CDM Regulations in connection with the Works and, where necessary, the provision of the Services; and

3.2 all obligations incumbent on the client under any Code of Practice for the time being approved by the Health and Safety Commission pursuant to the Health and Safety at Work etc Act 1974 issued in connection with the CDM Regulations.

4 Project Co shall provide to the Board's Representative:

4.1 in a substantially complete form on the Actual Completion Date; and

4.2 in final form within five (5) Business Days of the Actual Completion Date,

one electronic copy (on computer disk, tape or other format) of each and every health and safety file and construction phase plan prepared by the CDM Co-ordinator pursuant to the CDM Regulations in relation to the Works and the Services and electronic or paper copies of every amendment or update made to such file during the Project Term.

SECTION 3

BOARD'S CONSTRUCTION REQUIREMENTS

SECTION 4

PROJECT CO'S PROPOSALS

SECTION 5

REVIEWABLE DESIGN DATA

This Section 5 *(Reviewable Design Data)* of Schedule Part 6 *(Construction Matters)* sets out the details of the specific design information, materials, samples and required approvals (as more specifically set out in the table below) ("**Reviewable Design Data**") to be reviewed by the Board in accordance with Schedule Part 8 *(Review Procedure)* before such Reviewable Design Data is incorporated into the Facilities and/or the Site by Project Co.

For the avoidance of doubt, if Project Co's Proposals incorporate Room Data Sheets and/or Reviewable Design Data there shall be no requirement for Project Co's Proposals to be issued to the Board for review under Schedule Part 8 *(Review Procedure).* However, if Project Co subsequently revises or amends its Project Co's Proposals in relation to the Room Data Sheets and/or Reviewable Design Data, then such revisals or amendments shall require to be issued to the Board for review under Schedule Part 8 *(Review Procedure).*

Ref	Sample	Drawing	Other	Description	Project Co to submit by:	Board to review by:
A				**GENERAL INFORMATION**		
A1			*	Room Data Sheets (including upper load limits for heavy equipment).		
A2		*		Entrance areas		
A3		*		1:100 detailed landscape plans for all areas including levels, planting details, kerbs, paths and lighting for works both within red line boundary and out with including any visual screening, security details and maintenance access. To include extent, type and location of external equipment.		
A4		*		1:100 general arrangement floor and room plans and section		
A5	*	*		1:50 details of envelope in conjunction with 1:50 sections through all external systems/ components particularly at interfaces, changes in plane and junctions. (Note – full size mock ups of key envelope areas to be provided on site.) Also same info for basement and sub structure.		
A6		*		1:50 room layouts showing reflected ceiling plans, internal wall elevations and loaded floor plans.		
A7		*		1:200 fire strategy plans – showing all main fire compartments, sub compartments, hazard rooms, fire doors, fire escape doors and routes, call points, detectors, fire extinguishers, emergency lighting, fire dampers and compliance with Firecode		
A8		*		1:100 elevations and details of window glazing and opening lights		

Ref	Sample	Drawing	Other	Description	Project Co to submit by:	Board to review by:
				types and locations		
A9	*	*		1:50 glazing details, 1:50 sections and full size mock ups of glazing systems to be provide on site.		
10		*	*	1:100 roof plan with details of rooflights and other roof terminations. Comprehensive specification and details of all proposed roofing systems to be provided.		
A11		*		1:100 sections and1:50 sections		
A12		*		Loading floor plans and elevations including details of strong routes. Upper limits for heavy equipment as per Room Data Sheets. Maximum allowable structural deflections, differential settlement, vibration and specific tolerances of areas. (structural)		
A13			*	Detailed specifications for all mechanical and electrical components		
A14			*	List of proposed manufacturers, products, materials and equipment proposed.		
A15		*		Entrance canopy and covered walkway plans and details		
A16		*		Main entrance details		
A17	*			Facing bricks		
A18	*			Facing blocks		
A19	*			Cladding - all types		
A2-0	*		*	Window types		
A21	*		*	Roofing materials		
A22	*		*	Internal wall, column and ceiling linings including details of screening to rooms containing radiology or emitting ionising radiations, field protection around MRI installations and screening to rooms containing EEG or evoked potential recordings equipment.		
A23	*	*	*	Bespoke joinery		
A24			*	External doors		
A25	*		*	Door signage - NHS standard		
A26		*	*	Balustrade		
A27			*	Plaster/render		
A28	*			General floor finishes		
A29	*		*	Painting and decorating		
A30	*		*	Sanitary fittings inc schedule		
A31			*	Drainage materials		
A32	*			All light fittings		
A33	*			In patient radiator/valve		
A34	*		*	Typical bed head assembly with patient call, etc.		
A35	*			Typical switches/sockets		
A36	*		*	Typical smoke detector etc		

Ref	Sample	Drawing	Other	Description	Project Co to submit by:	Board to review by:
A37	*		*	Vent, grill & diffuser		
A38		*		Location of all structural movement joints.		
A39		*		Road, car park and footpath design, materials and layout including fire fighting appliance access, Details of pedestrian crossings, road and car park markings.		
A40	*	*	*	Works of art being included in the project including details of associated artists and samples of work.		
A41		*	*	Drawings and report indicating the adaptability strategy incorporated in the proposals.		
A42		*	*	Drawings and report on the demolition methodology being proposed.		
A43		*	*	Full details of helipad and associated procedures.		
A44		*	*	Details for the control of infection		
B				**SPECIFIC PROPOSALS**		
B1	*	*	*	Nurse call/communication system including Panic Alarm		
B2	*	*	*	Security installations (inc sample of CCTV cameras)		
C				**ELEMENTAL INFORMATION**		
C1	*	*	*	Internal doors and screens		
C2	*		*	Ironmongery schedule, samples and lock suiting including details of card access system		
C3	*		*	Finishes schedule		
C4	*		*	Schedule and details of furniture and fittings		
D				**FLOOR FINISHES**		
D1	*			Sheet finishes & skirtings		
D2	*			Carpets		
D3	*			Ceramic tiling		
D4	*			Dirt arresting floor coverings/ mats		
E				**CEILING FINISHES**		
E1	*			Suspended - tile types		
E2			*	Plasterboard		
E3	*			All other ceiling types		
F				**WALL FINISHES**		
F1	*			Decorations		
F2	*			Ceramic tiling		
G				**FIXTURES & FITTING**		
G1	*		*	Taps – all types		
G2	*	*	*	Touchdown bases		

Ref	Sample	Drawing	Other	Description	Project Co to submit by:	Board to review by:
G3	*	*	*	Reception counters		
G4	*		*	Office workstations		
G5	*		*	External/Internal signage		
G6	*		*	Light switches and sockets		
G7	*			Luminaires		
G8	*		*	Work benches/work surfaces		
G9	*	*	*	Bed head arrangement and patient call		
G10	*		*	Cubicle curtain track		
G11	*		*	Blinds		
G12	*	*	*	Equipment tagging		
H				**ENGINEERING SERVICES**		
The following for mechanical and electrical engineering Reviewable Design Data shall be provided. This will encompass the design, size, location and interface with existing, phasing and temporary provision in schematic format with respect to the following;						
H1		*	*	Boiler/primary heating distribution		
H2		*	*	Hot and cold domestic water storage and distribution		
H3		*	*	hv and lv electrical distribution		
H4		*	*	Standby generators		
H5		*	*	Fire alarms and detection system		
H6		*	*	Nurse call system		
H7		*	*	CCTV/security system		
H8		*	*	Air handling systems		
H9		*	*	Lifts/transportation samples and visualisations of typical lift required.		
H10		*	*	Controls / BMS including details of graphic representations and associated tutorial software..		
H11		*	*	Voice & Data		
H12		*	*	Pneumatic tube system		
1:200 Primary distribution for all areas indicating main distribution routes and plant locations with respect to the following:						
I1		*		LPHW heating		
I2		*		Domestic water services		
I3		*		Ventilation		
I4		*		Lighting and power		
I5		*		Fire alarms		
I7		*		Voice & data		
I8		*		Nurse call		
I9	*	*		Patient tagging		
I10		*		Pneumatic tube system		
1:50 Detail layouts for all areas for the following						
J1		*		Plant rooms and supporting schematics		
J2		*		Heating		
J3		*		Domestic water services		
J4		*		Ventilation		
J5		*		Lighting & power		
J6		*		Fire alarms		
J7		*		Voice and data		

Ref	Sample	Drawing	Other	Description	Project Co to submit by:	Board to review by:
J8		*		Nurse call		
J9		*		Security/CCTV		
J10		*		Personal alarms		
J11		*		Sprinklers		
J12		*		Lightning protection		
J13		*		Pneumatic tube system		
J14		*		Infrared systems and induction loops		
J15		*		Proposed ceiling voids above ceilings and safe points of access.		
1:500 external services drawing indicating all new works and site modifications, routes of all new and diverted services relating to the following:						
K1		*		Natural gas		
K2		*		Electrical supplies		
K3		*		Water supplies		
K4		*		Street lighting car park lighting		
K5		*		Foul and surface water drainage		
K6		*		Fire alarms		
Such supporting calculations, schedules and information, as requested by the Board to support items above.						
Elevational information related to fully loaded plans for complex areas						
L1		*		Voice & data communication		

SECTION 6

ROOM DATA SHEETS

SECTION 7

THERMAL AND ENERGY EFFICIENCY TESTING PROCEDURE

1. INTRODUCTION

1.1 Main Principles

This Section 7 *(Thermal and Energy Efficiency and Testing Procedure)* of Schedule Part 6 *(Construction Matters),* sets out the structure and main principles of the Thermal and Energy Efficiency Testing procedures to be carried out by Project Co at the Facilities in order to ascertain the As Built Facilities Energy Performance. In particular, this Section 7 *(Thermal and Energy Efficiency and Testing Procedure)* of Schedule Part 6 *(Construction Matters),* sets out the tests that shall be carried out during the commissioning period to ensure the completed Facilities complies with the agreed Energy Performance, or if improved, the Energy Performance stated in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters).*

2. TESTING OF THE THERMAL AND ENERGY MODEL

Project Co shall provide an As Built Energy Model for the Facilities to ensure compliance with the agreed Energy Performance, or if improved, the Energy Performance stated in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters).*

2.1 As Built Energy Model

2.1.1 Prior to the Commissioning End Date, Project Co shall submit an As Built Energy Model for the Board's review.

2.1.2 The information provided with the As Built Energy Model shall be in line with Good Industry Practice, and consistent with the level of information submitted in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* and consistent with the Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters).*

2.1.3 Project Co's As Built Energy Model shall be developed from Project Co's Energy Model used to confirm compliance with the Energy Performance at Financial Close. When updating to the As Built Energy Model, Project Co shall not amend any parameters of the Financial Close Energy Model other than where agreed in writing with the Board or where those parameters are affected by the information and commissioning tests detailed below.

2.1.4 Project Co shall include the following updates in the As Built Energy Model:

(a) As built building envelope and construction materials performance;

(b) As installed manufacturers' plant and components information, including all associated operating parameters such as co-efficient of performance;

(c) Results of building wide commissioning of completed installations including, but not limited to, all Heating, Ventilation and Cooling (HVAC) systems and lighting systems; and

(d) Results of commissioning period tests as detailed in paragraph 3 of this Section 7 *(Thermal and Energy Efficiency Testing Procedure)* of Schedule Part 6 *(Construction Matters).*

2.1.5 Project Co shall ensure the completed Facilities meet the Energy Performance or if

improved, the Energy Performance stated in Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters)* following input of all the above information.

2.1.6 Project Co shall clearly report input information and results of the As Built Energy Model for the Board's review and approval. Reporting shall highlight where input parameters have been altered from the Financial Close Energy Model, and the reason for the change i.e. following commissioning period testing.

3. COMMISSIONING PERIOD TESTS

3.1 Introduction

3.1.1 Notwithstanding Project Co's obligation to undertake all commissioning requirements of Schedule Part 10 *(Outline Commissioning Programme)* and Appendix B *(Completion Criteria),* Project Co shall undertake the following commissioning period tests in an agreed test zone (or with respect to the Air tightness test for all zones in the Facilities), to be agreed by the Board and Project Co, both parties acting reasonably, to demonstrate the actual Energy Performance of the Facilities:

(a) Air tightness test;

(b) Internal lighting installation test;

(c) Building fabric performance test; and

(d) Seasonal heating, cooling and ventilation installation testing.

3.1.2 Project Co shall incorporate the results of the commissioning period tests as detailed in this paragraph 3 of this Section *7 (Thermal and Energy Efficiency Testing Procedure)* of Schedule Part 6 *(Construction Matters)*, in the As Built Energy Model.

3.1.3 Project Co shall interpolate all results from the commissioning period tests such that the confirmed performance of the Facilities/installations following the commissioning period tests is applied across the complete Facilities in the As Built Energy Model.

3.1.4 Project Co shall submit all commissioning period test results and interpolative calculations to the Board as part of their As Built Energy Model submission for the Board's review.

3.1.5 An indication of the methodology of the commissioning period tests are outlined below, however the final extent and scope of the tests to be undertaken shall be developed and agreed by the Board and Project Co, both parties acting reasonably.

3.2 Air Tightness Test

3.2.1 Project Co shall carry out an air tightness test for the Facilities as outlined and in compliance with the Scottish Technical Standards and as detailed in CIBSE Technical Memorandum TM23-2000.

3.2.2 This air leakage rate should demonstrate the construction quality of the Facilities and allow a direct correlation to the assumed value used in the As Built Energy Model, detailed in m3/m2/h@50P.

3.3 Internal Lighting Installation

3.3.1 The lighting installation serving the agreed area/zone shall be completed, commissioned and operational and manually enabled for an agreed fixed period of time.

3.3.2 All lighting controls tested shall be as those installed in the Facilities and shall include

all automatic presence and photocell sensors, time controls and manual switching/dimming controls.

3.3.3 The operating usage and hours for the lighting installation within the test zone and period shall be as the operating profiles in the Financial Close Energy Model.

3.3.4 The lighting distribution board feeding the agreed area/zone shall be separately metered to provide the actual energy consumption for that area which shall confirm, or otherwise inform, the lighting energy consumption in Project Co's As Built Energy Model.

3.3.5 Project Co shall undertake light meter tests in the agreed area/zone to confirm, or otherwise inform, the lighting levels within the respective areas in Project Co's As Built Energy Model.

3.4 Building Fabric Performance

3.4.1 The thermal performance of the Facilities building fabric shall be assessed by Project Co within the agreed area/zone.

3.4.2 Project Co shall undertake the necessary tests to confirm the thermal performance of window, external door, ground floor, roof and external wall areas, as agreed between Project Co and the Board, both parties acting reasonably, within the agreed test zone.

3.4.3 Project Co shall further undertake thermographic surveys, to the relevant British Standards, of the agreed test areas to prove the quality of the thermal performance of the Facilities.

3.4.4 The thermal performance assessment in the agreed test zone shall confirm the thermal performance figures used for the building constructions, and all assumptions on thermal bridging, assumed within Project Co's As Built Energy Model.

3.5 Seasonal Heating, Cooling and Ventilation Installation Testing

3.5.1 Energy testing of the heating, cooling and ventilation system shall require seasonal testing of the completed, commissioned and operational main heating plant and any cooling and ventilation plant serving the agreed area/zone.

3.5.2 Project Co shall incorporate in their commissioning programme the ability to monitor the heating, and any cooling and ventilation, installations during extremes of ambient conditions, for example testing heating systems within the winter months, and testing cooling systems in the summer months complete with fully simulated heat gains, as agreed with the Board in the Financial Close Energy Model, both parties acting reasonably.

3.5.3 The main heating/cooling distribution pipework feeding the agreed test area/zone shall be separately metered (for the test area/zone) and the BMS/controls installation shall require to be manually adjusted to simulate an agreed operating period.

3.5.4 Ventilation systems shall be assessed at maximum power on maximum pressure drop across the system.

3.5.5 The power feeds serving the agreed area/zone heating, cooling and ventilation systems shall be further separately metered to provide the actual energy consumption for those services within that area.

3.5.6 The actual power consumption of the installations during the testing period will

confirm, or otherwise inform, Project Co's assumed co-efficients of performance, specific fan powers and energy efficiency ratings for the heating, ventilation and cooling systems in the As Built Energy Model; this being based on power inputs, heat/air flow rates//cooling outputs and associated ambient conditions during the testing procedures.

SECTION 8

QUALITY PLANS (DESIGN AND CONSTRUCTION)

SECTION 9

BOARD'S COMMENTS ON PROJECT CO'S PROPOSALS

[Comments/No Comments]

SCHEDULE PART 7

THE PROGRAMME

SCHEDULE PART 8

REVIEW PROCEDURE

1. REVIEW

1.1 The provisions of this Schedule Part 8 (*Review Procedure*) shall apply whenever any item, document or course of action is required to be reviewed, approved or otherwise processed in accordance with Schedule Part 8 (*Review Procedure*).

1.2 Subject to any express provision of this Agreement, the manner, form and timing of any submission to be made by Project Co to the Board's Representative for review under this Schedule Part 8 (*Review Procedure*) shall be a matter for Project Co to determine. Each submission under this Schedule Part 8 (*Review Procedure*) shall be accompanied by a copy of the proposed document to be reviewed (including, where applicable, any Reviewable Design Data) or a statement of the proposed course of action (the entire contents of a submission being referred to in this Schedule Part 8 (*Review Procedure*) as a "**Submitted Item**"). In relation to each Submitted Item, the following procedure shall apply:

1.2.1 as soon as possible and, if the Submitted Item comprises:

(a) an item of Reviewable Design Data;

(b) a revised Programme submitted pursuant to Clause 14 (*Programme and Dates for Completion*); or

(c) a document or proposed course of action submitted in the case of (an emergency),

within fifteen (15) Business Days of the date of receipt of a submission (or re-submission, as the case may be) of the Submitted Item to the Board's Representative (or such other period as the parties may agree), the Board's Representative shall return one copy of the relevant Submitted Item to Project Co endorsed "no comment" or (subject to and in accordance with paragraph 3 (*Grounds for Objection*)) "comments" as appropriate; and

1.2.2 subject to paragraph 1.4, if the Board's Representative fails to return a copy of any Submitted Item (including any re-submitted Submitted Item) duly endorsed in accordance with paragraph1.2.1, within fifteen (15) Business Days (or within such other period as the parties may agree in writing) of the date of its submission to the Board's Representative, then the Board's Representative shall be deemed to have returned the Submitted Item to Project Co endorsed "no comment" (and, in the case of Reviewable Design Data, endorsed "Level A - no comment"); and

1.2.3 in relation to the aspects of each Finish identified in the table below:

(a) Project Co shall submit to the Board a range or selection of finishes ("**Range of Finishes**") no later than the relevant Finishes Proposal Date;

(b) the Board's Representative shall by the relevant Finishes Selection Date notify Project Co of its selection for the relevant Finish; and

(c) if no selection of a Finish has been made by the Board's Representative and notified to Project Co in accordance with paragraph 1.2.3(b) by the relevant Finish Selection Date, Project Co shall be entitled to make a selection from the Range of Finishes

submitted in accordance with paragraph 1.2.3(b). After the relevant Finish Selection Date, should the Board wish to vary any selection previously made by Project Co or by the Board, such variation shall be effected as a Change in accordance with Schedule Part 16 (*Change Protocol*).

Table of Finishes[45]

Finishes	Aspects	Finishes Proposal Date	Finishes Selection Date
External envelope and finishes including roof, windows, horizontal glazing or equivalent, cladding screens, ventilation outlets and grilles comprising the external elevations and roofing all incorporated in minimum of full size three mock-ups	colour and materials and detailing		
internal wall finishes	colour and specification		
ceiling finishes	colour and specification		
floor finishes	colour and specification		
doors and screens	colour and specification		
ironmongery (windows and doors)	style, colour and specification		
sanitary fittings	style and content		
reception counters and desks	colour, content, style and material		
nurses station	colour, content, style and material		
main public light fittings	specification and style		
lifts – walls, ceilings and floors, external finishes and trims.	colour, content, style and material		
external signage	size, style, colour and location		
internal signage	size, style, colour and location		
light switches and sockets	style and colour		
light fittings	style and colour		
hard landscaping	colour and material		
soft landscaping	specification, material and colour		
boundary fencing and	size, style, colour and		

[45] Additional further detail may require to be added but this is directly related to what level of detail is captured in the Preferred Bidder's Project Co's Proposals.

enclosures	location		
Cancer Trust room decoration	colour and material		
stairs, treads, balustrades and handrails	style and colour		

1.3 If the Board's Representative raises comments on any Submitted Item in accordance with paragraph 3 (*Grounds for Objection*) he shall state the ground upon which such comments are based and the evidence or other information necessary to substantiate that ground. To the extent that the Board's Representative comments on a Submitted Item other than on the basis set out in this Schedule Part 8 (*Review Procedure*), or fails to comply with the provisions of this paragraph, Project Co may, in its discretion, either:

1.3.1 request written clarification of the basis for such comments and, if clarification is not received within ten (10) Business Days of such request by Project Co, refer the matter for determination in accordance with Schedule Part 20 (*Dispute Resolution Procedure*); or

1.3.2 in the case of a Submitted Item comprising Reviewable Design Data only, at its own risk, and without prejudice to Clause 12 (The Design, Construction and Commissioning Process), proceed with further design or construction disregarding such comments pending the outcome of any reference to the Dispute Resolution Procedure that may be made by either party.

1.4 In the case of any Submitted Item of the type referred to in paragraph3.10, a failure by the Board's Representative to endorse and return such Submitted Item within the period specified in paragraph 1.2.2 shall be deemed to constitute an objection by the Board's Representative to such Submitted Item. If the parties fail to agree the form and content of such Submitted Item, within ten (10) Business Days following the expiry of the period specified in paragraph1.2.2, the matter shall be determined in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

2. FURTHER INFORMATION

Project Co shall submit any further or other information, data and documents that the Board's Representative reasonably requires in order to determine whether he has a basis for raising comments or making objections to any Submitted Item in accordance with this Schedule Part 8 (*Review Procedure*). If Project Co does not submit any such information, data and documents, the Board's Representative shall be entitled to:

2.1 comment on the Submitted Item on the basis of the information, data and documents which have been provided; or

2.2 object to the Submitted Item on the grounds that insufficient information, data and documents have been provided to enable the Board's Representative to determine whether he has a legitimate basis for commenting or objecting in accordance with this Schedule Part 8 (*Review Procedure*).

3. GROUNDS OF OBJECTION

The expression "raise comments" in this paragraph shall be construed to mean "raise comments or make objections" unless the contrary appears from the context. The Board's Representative may raise comments in relation to any Submitted Item on the grounds set out in paragraph 2 (*Further Information*) above or on the ground that the Submitted Item would (on the balance of probabilities) breach any Law but otherwise may raise comments

in relation to a Submitted Item only as follows:

3.1 in relation to any Submitted Item if:

3.1.1 Project Co's ability to perform its obligations under this Agreement would (on the balance of probabilities) be adversely affected by the implementation of the Submitted Item; or

3.1.2 the implementation of the Submitted Item would (on the balance of probabilities) adversely affect any right of the Board under this Agreement or its ability to enforce any such right;

3.1.3 any aspect of a Submitted Item does not comply with or is not in accordance with Appendix A of the Board's Construction Requirements and/or the Interface Proposals;

3.2 in relation to any Submitted Item submitted pursuant to Clause 4.1 (*Ancillary Documents*) if:

3.2.1 the Board's ability to perform its obligations under this Agreement would be adversely affected by the proposed course of action;

3.2.2 the Board's ability to provide the relevant Board Services or to carry out any of its statutory functions would (on the balance of probabilities) be adversely affected by the proposed course of action;

3.2.3 the proposed course of action would be likely to result in an increase to the Board's liabilities or potential or contingent liabilities under this Agreement;

3.2.4 the proposed course of action would adversely affect any right of the Board under this Agreement or its ability to enforce any such right; or

3.2.5 Project Co's ability to perform its obligations under this Agreement would be materially adversely affected by the proposed course of action;

3.3 in relation to Reviewable Design Data submitted pursuant to Clause 12.6:

3.3.1 which does not comprise 1:50 scale Room Layout Drawings the Board's Representative may raise comments, subject to and in accordance with paragraph 4 (*Effect of Review*) on the ground that the Submitted Item is not in accordance with:

(a) the Board's Construction Requirements; and/or

(b) Project Co's Proposals;

3.3.2 which comprises a 1:50 scale Room Layout Drawing in respect of which there is a corresponding generic 1:50 scale Room Layout Drawing for the relevant room type (which has previously been reviewed and commented upon by the Board's Representative in accordance with this Schedule Part 8 (Review Procedure)), the Board's Representative may raise comments, subject to and in accordance with paragraph 4 *(Effect of Review),* on the ground that the Submitted Item

3.3.3 which comprises a 1:50 scale Room Layout Drawing in respect of which there is no corresponding generic 1:50 scale Room Layout Drawing for the relevant room type (which has previously been reviewed and commented upon by the Board's Representative in accordance with this Schedule Part 8 *(Review Procedure)*), the Board's Representative may raise comments, subject to and in accordance with paragraph 4 *(Effect of Review),* on the

grounds that the Submitted Item:

(a) is not in accordance with the Board's Construction Requirements and/or Project Co's Proposals; or

(b) is inconsistent with the guidance contained in any current NHS Requirement which is applicable to a room of that function provided that such guidance has not been superseded by and is not inconsistent with any other provisions of the Board's Construction Requirements (including any existing Approved RDD Item);

3.3.4 on the grounds that the Submitted Item is not in accordance with Appendix A of the Board's Construction Requirements and/or the relevant Interface Proposals;

3.4 in relation to a proposal to amend Project Co's Proposals and rectify (part of) the Works submitted pursuant to Clause 12.8, on the grounds that, following the amendment and rectification proposed:

3.4.1 Project Co's Proposals would not satisfy the Board's Construction Requirements; and/or

3.4.2 the structural, mechanical and/or electrical performance of the Facilities and/or the Retained Estate Handback Infrastructure would not be of an equivalent standard of performance to that set out in Project Co's Proposals prior to their amendment or rectification (for the purpose of this comparison disregarding the fault which required the amendment or rectification to be made);

3.5 in relation to Finishes:

3.5.1 which have the effect of making a selection from the Range of Finishes (or any alternative range or selection of Finishes submitted by Project Co to the Board's Representative) pursuant to Clause 12.6.1; or

3.5.2 where the Submitted Item does not comply with the relevant provisions of the Board's Construction Requirements and/or Project Co's Proposals;

3.6 in relation to the submission of any revised Programme pursuant to Clause 14 (*Programme and Dates for Completion*) on the ground that the revised Programme would not (on the balance of probabilities) enable the Works to be completed by the Completion Date and/or reflect any timescales set out in the Appendix A of the Board Construction Requirements and/or the Interface Proposals;

3.7 in relation to the submission of any Quality Plan or part of a Quality Plan or any changes to any Quality Plan pursuant to Clause 20.4 or Clause 20.7 or any quality manual or procedure in accordance with Clause 20.9 (*Quality Manuals and Procedures*), on the grounds that such Quality Plans, or parts of or changes to such Quality Plans, quality manuals or procedures, or the quality management systems which they reflect, would not comply with:

3.7.1 in the case of the Design Quality Plan and the Construction Quality Plan referred to in Clause 20.8, the requirements referred to in Section 8 (Quality *Plans (Design and Construction*)) of Schedule Part 6 (*Construction Matters*); and

3.7.2 in the case of the Services Quality Plan referred to in Clause 20 (*Quality* Assurance), the requirements referred to in Section 3 (*Services Quality Plan*) of Schedule Part 12 (*Service Requirements*);

3.8 in relation to the submission of any proposed revision or substitution for the Method Statements or any part of any Method Statement (as the case may be) pursuant to Clause 22.4, on the grounds that:

3.8.1 the proposed revision or substitution is not in accordance with Good Industry Practice;

3.8.2 the performance of the Services in accordance with the proposed revision or substitution would (on the balance of probabilities):

(a) be materially different from the performance of the Services in accordance with the Method Statement prior to such proposed revision or substitution; or

(b) be less likely to achieve compliance with the Service Level Specification and/or the relevant Interface Proposals; or

(c) have an adverse effect on the provision by the Board of the relevant Board Services at, or on the safety of any users of, the Facilities; or

3.8.3 the proposed revision or substitution would (on the balance of probabilities) result in an inferior standard of performance of the Services to the standard of performance in accordance with the Method Statement prior to such proposed revision or substitution; and

3.9 in relation to the submission of any Schedule of Programmed Maintenance pursuant to Clause 23.1, the submission of any Schedule of Lifecycle Replacement pursuant to Clause 23A, any revision to any Schedule of Programmed Maintenance pursuant to Clause 23.4 or any submission of Unprogrammed Maintenance Works pursuant to Clause 23.8, on the grounds that:

3.9.1 carrying out the Programmed Maintenance, Lifecycle Replacement or the Unprogrammed Maintenance Works in the period or at the times suggested would (on the balance of probabilities) interfere with the operations of the Board and such interference could be avoided or mitigated by Project Co rescheduling the Programmed Maintenance, Lifecycle Replacement or the Unprogrammed Maintenance Works; or

3.9.2 in relation to the Schedule of Programmed Maintenance or Schedule of Lifecycle Replacement, the proposed hours for carrying out the Programmed Maintenance or Schedule of Lifecycle Replacement are not consistent with the principles set out in Appendix 2, Table B to this Schedule Part 8 (*Review Procedure*); or

3.9.3 the proposed method of performance of the Programmed Maintenance, Lifecycle Replacement or the Unprogrammed Maintenance Works would not be in accordance with the Service Level Specification and/or the relevant Interface Proposals and/or Appendix A of the Board's Construction Requirements and/or the restrictions and/or requirements of Clause 9 *(Nature of Land Interests)* including without limitation Schedule Part 5 *(Land Matters)*; or

3.9.4 the safety of users of the Facilities would (on the balance of probabilities) be adversely affected; or

3.9.5 the period for carrying out the Programmed Maintenance, Lifecycle Replacement or the Unprogrammed Maintenance Works would (on the balance of probabilities) exceed the period reasonably required for the relevant works.

3.10 In relation to the submission of Project Co's proposals for the Handback Works, the Handback Programme and the Handback Amount pursuant to Schedule Part 18 (*Handback Procedure*), on the grounds that:

3.10.1 in the case of the Handback Works, Project Co's proposals will not (on the balance of probabilities) ensure that the Handback Requirements are achieved by the Expiry Date;

3.10.2 in the case of the Handback Programme, performance of the Handback Works in accordance with the programme is not (on the balance of probabilities) capable of achieving satisfaction of the Handback Requirements by the Expiry Date; and

3.10.3 in the case of the Handback Amount, it does not represent the cost of carrying out the Handback Works according to the Handback Programme and the provisions of Schedule Part 18 (*Handback Procedure*).

3.11 In relation to the submission of any Schedule of Lifecycle Replacement on the grounds that, Project Co's Proposals do not address the issues set out in Clause 23A.3 and/or Clause 23A.4 or the Board's Representative wishes to make additional comments on the issues set out in Clauses 23A.3, 23A.4 and/or Clause 23A.5.

4. EFFECT OF REVIEW

4.1 Any Submitted Item which is returned or deemed to have been returned by the Board's Representative endorsed "no comment" (and in the case of Reviewable Design Data, endorsed "Level A - no comment") shall be complied with or implemented (as the case may be) by Project Co.

4.2 In the case of any Submitted Item other than Reviewable Design Data, if the Board's Representative returns the Submitted Item to Project Co endorsed "comments", Project Co shall comply with such Submitted Item after amendment in accordance with the comments unless Project Co disputes that any such comment is on grounds permitted by this Agreement, in which case Project Co or the Board's Representative may refer the matter for determination in accordance with Schedule Part 20 (Dispute Resolution Procedure) and Project Co shall not act on the Submitted Item until such matter is so determined or otherwise agreed.

4.3 In the case of a Submitted Item comprising Reviewable Design Data, if the Board's Representative returns the Submitted Item endorsed other than "Level A - no comment", Project Co shall:

4.3.1 where the Board's Representative has endorsed the Submitted Item "Level B - proceed subject to amendment as noted", either proceed to construct or proceed to the next level of design of the part of the Works to which the Submitted Item relates but take into account any amendments required by the Board's Representative in his comments;

4.3.2 where the Board's Representative has endorsed the Submitted Item "Level C - subject to amendment as noted" not act upon the Submitted Item, amend the Submitted Item in accordance with the Board's Representative's comments and re-submit the same to the Board's Representative in accordance with paragraph4.4; and

4.3.3 where the Board's Representative has endorsed the Submitted Item "Level D - rejected" not act upon the Submitted Item, amend the Submitted Item and re-submit the Submitted Item to the Board's Representative in accordance with paragraph4.4,

unless Project Co disputes that any such comment or proposed amendment is on

grounds permitted by this Agreement, in which case Project Co or the Board's Representative may refer the matter for determination in accordance with Schedule Part 20 (*Dispute Resolution Procedure*) and Project Co shall not act on the Submitted Item until such matter is so determined or otherwise agreed except at its own risk in accordance with paragraph 1.3.2.

4.4 Within ten (10) Business Days of receiving the comments of the Board's Representative on any Submitted Item comprising Reviewable Design Data, Project Co shall (except in the case contemplated in paragraph4.3.1) send a copy of the Submitted Item as amended to the Board's Representative pursuant to paragraph 4.3 and the provisions of paragraphs 1.2.1, 4.1 and 4.3 shall apply (changed according to context) to such re-submission.

4.5 The return or deemed return of any Submitted Item endorsed "no comment" (or in the case of Reviewable Design Data endorsed "Level A - no comment" or otherwise endorsed in accordance with paragraph 4.3.1 or4.3.2) shall mean that the relevant Submitted Item may be used or implemented for the purposes for which it is intended but, save to the extent expressly stated in this Agreement including, without limitation, as specified in Appendix 1 Table A to this Schedule Part 8 (*Review Procedure*), such return or deemed return of any Submitted Item shall not otherwise relieve Project Co of its obligations under this Agreement nor is it an acknowledgement by the Board that Project Co has complied with such obligations.

4.6 Clause 23A.6 shall apply in respect of any comments made by the Board's Representative on the grounds set out in paragraphs 3.9 to 3.11 which Project Co shall not be bound to implement, notwithstanding any other provision in this Schedule Part 8 *(Review Procedure).*

5. DOCUMENTATION MANAGEMENT

5.1 Project Co shall issue two (2) copies of all Submitted Items to the Board and compile and maintain a register of the date and contents of the submission of all Submitted Items.

5.2 Project Co shall compile and maintain a register of the date of receipt and content of all Submitted Items that are returned or deemed to be returned by the Board's Representative.

5.3 Save to the extent set out in Appendix 1, Table A to this Schedule Part 8 (*Review Procedure*) or elsewhere in this Schedule Part 8 (*Review Procedure*), no review, comment or approval by the Board shall operate to exclude or limit Project Co's obligations or liabilities under this Agreement (or the Board's rights under this Agreement).

6. CHANGES

6.1 No approval or comment or any failure to give or make an approval or comment under this Schedule Part 8 shall constitute a Change save to the extent provided in this Schedule Part 8 (*Review Procedure*).

6.2 If, having received comments from the Board's Representative, Project Co considers that compliance with those comments would amount to a Change, Project Co shall, before complying with the comments, notify the Board of the same and, if it is agreed by the parties or determined pursuant to Schedule Part 20 (*Dispute Resolution Procedure*) that a Change would arise if the comments were complied with, the Board may, if it wishes, implement the Change and it shall be dealt with in accordance with Schedule Part 16 (*Change Protocol*). Any failure by Project Co to notify the Board that it considers compliance with any comments of the Board's Representative would amount to a Change shall constitute an irrevocable acceptance by Project Co that any compliance with the Board's comments shall be without cost to the Board and without

any extension of time.

6.3 No alteration or modification to the design, quality and quantity of the Works arising from the development of detailed design or from the co-ordination of the design shall be construed or regarded as a Change.

APPENDIX 1

TABLE A

Approved RDD Item (by category)	**Scale**	**Meaning of "Level A - no comment" and "Level B – proceed subject to amendment as noted" endorsement of Reviewable Design Data under Schedule Part** 8 **(*Review Procedure*) (including both the actual and deemed endorsement).**
Room Data Sheets	n/a	A "Level A - no comment" endorsement or a "Level B - proceed subject to amendment as noted" endorsement of any room data sheet means that Project Co may proceed to construct in accordance with the Submitted Item and that the Board is satisfied that the design and other information in the relevant room data sheet satisfies Operational Functionality.
Drawings – Development Control Plan	1:1250	A "Level A - no comment" endorsement or a "Level B - proceed subject to amendment as noted" endorsement of any 1:1250 scale development control plan means that Project Co may proceed to construct in accordance with the Submitted Item and that the Board is satisfied that the design and other information contained in the relevant drawing satisfies Operational Functionality.
Drawings – Site Plan	1:500	A "Level A - no comment" endorsement or a "Level B - proceed subject to amendment as noted" endorsement of any 1:500 scale site plan means that Project Co may proceed to construct in accordance with the Submitted Item and that the Board is satisfied that the design and other information contained in the relevant drawing satisfies Operational Functionality.
Drawings – Floor Plans	1:200	A "Level A - no comment" endorsement or a "Level B - proceed subject to amendment as noted" endorsement of any 1:200 scale floor plan means that Project Co may proceed to construct in accordance with the Submitted Item and that the Board is satisfied that the design and other information contained in the relevant drawing satisfies the Operational Functionality.
Drawings – Room Layouts (including room elevations) &	1:50	A "Level A - no comment" endorsement or a "Level B - proceed subject to amendment as noted" endorsement of any 1:50 scale room layout and/or reflected ceiling drawing means that Project Co may proceed to construct in accordance with the Submitted Item and that the Board is satisfied (to the extent of the design and other information contained in the relevant drawing) that the design and other information in the relevant drawing

Reflected ceiling plans		satisfies Operational Functionality.
Drawings – Departmental plans	1:50	A "Level A - no comment" endorsement or a "Level B – proceed subject to amendment as noted" endorsement of any 1:50 scale departmental plan means that Project Co may proceed to construct in accordance with the Submitted Item and that the Board is satisfied (to the extent of the design and other information contained in the relevant drawing) that the design and other information in the relevant drawing satisfies Operational Functionality.

APPENDIX 2

HOURS FOR PROGRAMMED MAINTENANCE

1 Subject to paragraphs 3 to 5 below, Project Co shall carry out Programmed Maintenance and Lifecycle Replacement at the Facilities during the hours of 0800 to 1700 from Monday to Friday ("**Hours for Programmed Maintenance**").

2 Project Co may, with the consent of the Board (which consent shall not be unreasonably withheld) carry out Maintenance Works outside the Hours for Programmed Maintenance and Lifecycle Replacement provided always that it shall take into account:

2.1 the likely disturbance to the Board and/or its staff and users within the immediate area where the Maintenance Works and Lifecycle Replacement are to be undertaken;

2.2 the likely disturbance to adjacent areas, the Board and/or its staff and users in those adjacent areas that may be affected by the Maintenance Works to be undertaken in the area(s) identified in (i) above; and

2.3 compliance with the Law.

3 Subject to paragraph4, Project Co shall have access to the Facilities during the hours of operation to the areas set out in and in accordance with Table B below (**"Hours of Operation"**) to carry out Programmed Maintenance and Lifecycle Replacement.

TABLE B

Wards	0800 - 1800
Day Case Areas	1000 – 2000
Emergency Department	0800 - 1600
Theatres	1800 - 0700
Laboratories	0800 - 1600
ITU/High Dependency	0800 - 1800
Toilets	0000 - 0000
Corridors	0000 - 0000
VIP Rooms and Meeting Rooms	0000 - 0000
Family Hotel	0900 - 1700
Outpatient Departments	0000 - 0000
Office Accommodation	0000 - 0000
Reception/Entrances	0000 - 0000
Storage Areas	0000 – 0000
Classrooms	Outwith term time

4 Where Project Co requires access to an area of the Facilities during the Hours of Operation, Project Co will consult with and obtain the consent of [the member of personnel in charge of a department ("**Head of Department**")] concerning dates, times and periods during which Programmed Maintenance or Lifecycle Replacement is to be undertaken in those departments so as to minimise disruption to those departments.

5 The Board may request Project Co to carry out Programmed Maintenance or Lifecycle Replacement outside the Hours for Programmed Maintenance in the event that the carrying out of such Programmed Maintenance or Lifecycle Replacement during the Hours for Programmed Maintenance would adversely affect the use of the department or area.

SCHEDULE PART 9

COLLATERAL AGREEMENTS

SECTION 1

CONTRACTOR'S COLLATERAL AGREEMENT

COLLATERAL WARRANTY

AMONG:

(1) **LOTHIAN HEALTH BOARD**, a health board constituted in Scotland under the National Health Service (Constitution of Health Boards) (Scotland) Order 1974 (S.I. 1974/267) as amended by the National Health Service (Constitution of Health Boards) (Scotland) Amendment Order 2003 (S.S.I. 2003/217) pursuant to Section 2 of the National Health Service (Scotland) Act 1978 as amended by section 28 of the National Health Service and Community Care Act 1990 and having its principal address at Waverley Gate, 2-4 Waterloo Place, Edinburgh EH1 3EG (the **"Board"**);

(2) [CONTRACTOR] (the "**Contractor**");

(3) [PROJECT CO] ("**Project Co**"); and

(4) [FUNDER] ("**Funder**" being one of the Funders).

WHEREAS:

(A) The Board and Project Co have agreed the terms on which Project Co will design, develop and construct and provide certain services in connection with the reprovision of services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France (the "Development") at the Site and Off-Site (as such expressions are defined in the Design Build Finance and Maintain Agreement) and, accordingly, have entered into the Design Build Finance and Maintain Agreement and the Project Documents.

(B) Project Co has entered into the Funding Agreements, (as defined in the Design Building Finance and Maintenance Agreement) with the Funders.

(C) The Contractor and Project Co have entered into an agreement (the "Construction Contract") of even date herewith relating to the provision of the Works (as defined in the Design Build Finance and Maintain Agreement) by the Contractor to enable Project Co to discharge its obligations to the Board regarding such Works under the Design Build Finance and Maintain Agreement and the Project Documents.

(D) This Contractor's Collateral Agreement (the "Agreement") is the Contractor's Collateral Agreement contemplated by the Design Build Finance and Maintain Agreement.

NOW IT IS HEREBY AGREED as follows:

1 DEFINITIONS AND INTERPRETATION

1.1 **Definitions**

In this Agreement, the following terms shall, unless the context otherwise requires, have the following meanings:

"Ancillary Documents"	has the meaning given in the Design Build Finance and Maintain Agreement;
"Business Day"	means a day other than a Saturday, Sunday or a bank holiday in Scotland;

"Construction Contract"	has the meaning given in the Design Build Finance and Maintain Agreement;
"Design Build Finance and Maintain Agreement"	means the Design Build Finance and Maintain Agreement of even date herewith between (1) the Board and (2) Project Co;
"Event of Project Co Default"	has the meaning given in the Construction Contract;
"Funders"	means [ ];
"Funders' Contractor Direct Agreement"	means the agreement of even date herewith between, amongst others, Project Co, the Contractor and the Funder;
"Funders' Direct Agreement"	is the agreement of even date herewith between, amongst others, the Board, Project Co, and the Funder;
"Funding Agreements"	has the meaning given in the Design Build Finance and Maintain Agreement;
"Novation Agreement"	has the meaning given in Clause 4.5.3(b);
"Novation Effective Date"	means the date of performance of the obligations set out in Clause 4 (*Novation*);
"Parent Company Guarantee"	has the meaning given in the Construction Contract;
"Proposed Novation Date"	has the meaning given in Clause 4.1 (*Proposed Substitute*);
"Proposed Novation Notice"	has the meaning given in Clause 4.1 (*Proposed Substitute*);
"Proposed Step-in Date"	has the meaning given in Clause 3.1 (*Step-in Notice*);
"Proposed Substitute"	has the meaning given in Clause 4.1 (*Proposed Substitute*);
"Security Documents"	has the meaning given in the Funders' Direct Agreement;
"Step-in Date"	means the date of issue of the Step-in Undertaking;
"Step-in Notice"	has the meaning given in Clause 3.1 (*Step-in Notice*);
"Step-in Period"	means the period commencing on the Step-in Date and ending on the earliest of: the date of the first anniversary of the Step-in Date (but subject always to Clause 4.7 (*Extension of Step-in Period*));

	the Step-out Date; the Novation Effective Date; and termination of the Construction Contract under Clause 3.3 (*Restriction of Right of Termination*);
"Step-in Undertaking"	has the meaning given in Clause 3.2.4;
"Step-out Date"	has the meaning given in Clause 3.4.1;
"Termination Notice"	has the meaning given in Clause 2.3 (*Termination Notice*).

1.2 Interpretation

Save to the extent that the context or the express provisions of this Agreement otherwise require:

1.2.1 headings and sub-headings are for ease of reference only and shall not be taken into consideration in the interpretation or construction of this Agreement;

1.2.2 all references to Clauses are references to Clauses of this Agreement;

1.2.3 all references to agreements, documents or other instruments include (subject to all relevant approvals) a reference to that agreement, document or instrument as amended, supplemented, substituted, novated or assigned from time to time;

1.2.4 all references to any statute or statutory provision shall include references to any statute or statutory provision which amends, extends, consolidates or replaces the same or which has been amended, extended, consolidated or replaced by the same and shall include any orders, regulations, codes of practice, instruments or other subordinate legislation made under the relevant statute or statutory provision;

1.2.5 any reference to time of day shall be a reference to Edinburgh time;

1.2.6 the words "herein", "hereto" and "hereunder" refer to this Agreement as a whole and not to the particular Clause in which such word may be used;

1.2.7 words importing the singular include the plural and vice versa;

1.2.8 words importing a particular gender include all genders;

1.2.9 "person" includes any individual, partnership, firm, trust, body corporate, government, governmental body, authority, agency, unincorporated body of persons or association;

1.2.10 any reference to a public organisation shall be deemed to include a reference to any successor to such public organisation or any organisation or entity which has taken over the functions or responsibilities of such public organisation;

1.2.11 references to "Party" means a party to this Agreement and references to "Parties" shall be construed accordingly;

1.2.12 all monetary amounts are expressed in pounds sterling;

1.2.13 references to the word "includes" or "including" are to be construed without limitation;

2.1.14 the obligations of any Party under this Agreement are to be performed at that Party's own cost and expense;

2.1.15 terms used in this Agreement that are defined in the Design Build Finance and Maintain Agreement or the Ancillary Documents shall have the meanings given to them in the Design Build Finance and Maintain Agreement or the Ancillary Documents, as appropriate.

2 TERMINATION NOTICE AND BOARD TERMINATION

2.1 Contractor's Warranties and Undertakings

The Contractor warrants and undertakes to the Board that it has complied with and fulfilled and shall continue to comply with and fulfil its duties and obligations arising under or by virtue of the Construction Contract, provided that the Board shall only be entitled to make a claim against the Contractor under this Clause 2.1 (Contractor's Warranties and Undertakings) if the Design Build Finance and Maintain Agreement has terminated and shall not be entitled to do so during the Step-in Period or after the Construction Contract has been novated under Clause 4 (Novation).

2.2 Liability of Contractor

Any liability arising from any claim for breach of the warranty under or pursuant to Clause 2.1 (*Contractor's Warranties and Undertakings*) shall be in addition to and without prejudice to any other present or future liability of the Contractor to the Board (including, without prejudice to the generality of the foregoing, any liability in negligence) and shall not be released, diminished or in any other way be affected by any independent enquiry into any relevant matter which may be made or carried out by or on behalf of the Board by any person nor by any action or omission of any person whether or not such action or omission might give rise to an independent liability of such person to the Board provided always that the Contractor shall owe no greater duties or obligations to the Board under this Agreement than it owes or would have owed to Project Co under the Construction Contract. Without prejudice to Clause 12 (*Aggregate Liability*), the Contractor shall be entitled in any action or proceedings brought by the Board under this Agreement to rely on any limitation or

exclusion of liability in the Construction Contract and to raise equivalent rights in defence of liability (but excluding retention, set-offs and counterclaims) as it would have against Project Co under the Construction Contract.

2.3 **Termination Notice**

2.3.1 The Contractor undertakes not to terminate the Construction Contract on account of an Event of Project Co Default without first giving the Board not less than twenty (20) Business Days' prior written notice specifying the grounds for that termination. Subject to Clause 2.3.2 below any such notice shall be a "**Termination Notice**".

2.3.2 Where the Contractor's right to terminate is subject to the terms of the Funders' Direct Agreement then the Contractor shall notify the Board of the same as soon as reasonably practicable upon becoming aware of the provisions of the Funders' Contractor Direct Agreement applying. Thereafter as soon as the Contractor becomes entitled to terminate the Construction Contract free from the constraints contained in the Funders' Contractor Direct Agreement, whether upon the expiry of the Step-in Period (as such term is defined in the Funders' Direct Agreement) or otherwise, then the Contractor undertakes to the Board not to terminate the Construction Contract on account of an Event of Project Co Default (whether occurring before or after the Contractor's right to terminate the Construction Contract was free from the constraints of the Funders' Contractor Direct Agreement) without first giving the Board not less than twenty (20) Business Days' prior notice specifying the grounds for that termination and noting that the Contractor's right of termination is not subject to the Funders' Contractor Direct Agreement. Any such notice, other than one given in circumstances where there is no default under the Construction Contract by Project Co or the Contractor, shall for the purposes of this Agreement also be a Termination Notice and the provisions of this Agreement shall apply accordingly.

2.3.3 Notwithstanding any provision of the Construction Contract to the contrary, on termination of the Design Build Finance and Maintain Agreement by the Board, the Parties agree that the Construction Contract shall not come to an end except in accordance with the terms of this Agreement.

2.3.4 The Board acknowledges that it shall not be entitled to exercise its rights under Clauses 3 (*Step-in and Step-out*) and 4 (*Novation*):

(a) where the event giving rise to termination of the Design Build Finance and Maintain Agreement is a Contractor Event of Default (as that term is defined in the Construction Contract) whether or not at the relevant time there has been notice to terminate the Construction Contract for such Contractor Event of Default;

(b) until the Funder has released its security over the Construction Contract; or

(c) until the Funder has confirmed to the Board in writing that it has no further claims or interest in the claims of Project Co or any Suitable Substitute Contractor (as such term is defined in the Funders' Contractor Direct Agreement) against the Contractor whether pursuant to the Security Documents, the Construction Contract or the

enforcement of any rights under the Security Documents or the Funders' Contractor Direct Agreement.

3. STEP-IN AND STEP-OUT

3.1 Step-in Notice

3.1.1 If the Board has terminated the Design Build Finance and Maintain Agreement in accordance with the terms of the Design Build Finance and Maintain Agreement or if the Board has received a Termination Notice, then subject to the provisions of this Agreement, the Board may give written notice to the Contractor (copied to the Funder) (a "**Step-in Notice**") of the intention of the Board to issue a Step-in Undertaking on a specified date (the "**Proposed Step-in Date**") provided that such Proposed Step-in Date shall be:

(a) no later than five (5) Business Days after termination of the Design Build Finance and Maintain Agreement where this has been terminated by the Board; and

(b) no earlier than the date falling five (5) Business Days prior to the date of expiry of the Termination Notice and no later than the date of expiry of the Termination Notice where a Termination Notice has been given by the Contractor.

3.1.2 Unless the Contractor otherwise consents, only one Step-in Notice may be given during the period of this Agreement. Subject to Clause 5.1 (*Rights of Termination*) below, the Contractor shall not be entitled to terminate the Construction Contract until after the Proposed Step-in Date.

3.2 Notice of Obligations and Step-in Undertaking

3.2.1 Within three (3) Business Days of receipt of any Step-in Notice, the Contractor shall give written notice to the Board of any sums of which the Contractor has actual knowledge which are due and payable but unpaid by Project Co and of any other material obligations or liabilities, of which the Contractor has actual knowledge, which should have been performed or discharged by Project Co under the Construction Contract, in each case, as at the date of the Step-in Notice.

3.2.2 The Contractor shall inform the Board in writing as soon as reasonably practicable of:

(a) any change in such sums, obligations or liabilities referred to in Clause 3.2.1; and

(b) any further sums, obligations or liabilities thereafter falling due and payable but unpaid or falling due for performance or discharge and

unperformed or undischarged (as the case may be);

in each case of which the Contractor has actual knowledge, before the Step-in Date.

3.2.3 The Contractor shall give the Board the information referred to in Clauses 3.2.1 and 3.2.2 in good faith and may not give any further notifications pursuant to Clause 3.2.2 less than two (2) Business Days prior to the Proposed Step-in Date. The Board shall not be required to assume any liability under a Step-in Undertaking for any outstanding obligations or liabilities of Project Co to the Contractor which are not notified to the Board pursuant to Clauses 3.2.1 or3.2.2.

3.2.4 Not later than the Proposed Step-in Date the Board shall decide if it is prepared to issue a Step-in Undertaking. If it does so decide, the Board shall promptly give the Contractor written notification of such decision and, at the same time, provide a copy of such notification to the Funder. The Board shall deliver to the Contractor on the Proposed Step-in Date, a written undertaking in form and substance agreed with the Contractor (both the Board and the Contractor acting reasonably) (the "**Step in Undertaking**"), incorporating a clause in terms similar to Clause 11 (but only to the extent that there will not be double counting of default interest accruing under the Construction Contract and this Agreement), and undertaking to the Contractor:

(a) to pay or procure the payment to the Contractor, within twenty (20) Business Days of demand by the Contractor, of any sum due and payable but unpaid by Project Co to the Contractor under the Construction Contract before the Step-in Date and which has been notified by the Contractor to the Board in accordance with Clause 3.2.1 or3.2.2;

(b) to perform or discharge or procure the performance or discharge of any unperformed or undischarged obligations of Project Co under the Construction Contract which shall have fallen due for performance or discharge before the Step-in Date and which have been notified by the Contractor to the Board in accordance with Clause 3.2.1 or 3.2.2 within such period as the Contractor may reasonably require;

(c) to pay or procure the payment of any sum due and payable by Project Co under the Construction Contract as a result of any act or omission occurring during the Step-in Period which shall arise from any act or omission occurring after the Step-in Date (but subject to Clauses 3.4 and 4.5.3(b)) but not, to avoid doubt, any sum due in respect of any Works carried out before the Step-in Date; and

(d) to perform or discharge or procure the performance or discharge of any obligations of Project Co under the Construction Contract as a result of any act or omission occurring during the Step-in Period which shall arise from any act or omission occurring after the Step-in Date (but subject to Clauses 3.4(*Step-Out*) and4.5.3(b)) but not, to avoid doubt, to perform or discharge or to procure the performance or discharge of any obligations in respect of any Works carried before

the Step-in Date.

3.2.5 Following notification of the Board's decision pursuant to Clause 3.2.4, the Funder shall, on or before the Proposed Step-in Date, take any action which is necessary unconditionally and irrevocably to release the Construction Contract and the Parent Company Guarantee from the security constituted by the Security Documents.

3.2.6 Upon release by the Funder of its security over the Parent Company Guarantee in accordance with Clause 3.2.5, Project Co shall immediately assign all its rights and powers under the Parent Company Guarantee to the Board in accordance with Clause [insert reference] of the same.

3.2.7 If the Board shall not have issued the Step-in Undertaking on or before the Proposed Step-in Date the Step-in Notice shall be deemed to have been withdrawn and the rights and obligations of the Parties shall be construed as if the Step-in Notice had not been given.

3.3 **Restriction of Right of Termination**

During or in respect of the Step-in Period, the Contractor confirms to the Board that it shall continue to observe and perform its duties and obligations under the Construction Contract and shall, without prejudice to Clause 5.1 (*Rights of Termination*), only be entitled to exercise its rights of termination under the Construction Contract:

3.3.1 by reference to an Event of Project Co Default arising during the Step-in Period provided that no event of default by Project Co under the Design Build Finance and Maintain Agreement (whether resulting in termination of the Design Build Finance and Maintain Agreement or otherwise, and notwithstanding that it has occurred during the Step-in Period) shall entitle the Contractor to exercise such rights of termination during the Step-in Period; or

3.3.2 if the Board, in breach of the terms of the Construction Contract, fails to pay when due any amount owed to the Contractor or fails to perform or discharge when falling due for performance or discharge any obligation under the Step-in Undertaking or fails to procure such payment or performance or discharge; or

3.3.3 if such rights of termination arise in circumstances where there is no default under the Construction Contract by the Board or the Contractor.

3.4 **Step-Out**

3.4.1 the Board may, at any time, give the Contractor at least twenty (20) days' prior written notice to terminate the Step-in Period on a date specified in the notice (the "**Step-out Date**");

3.4.2 the Board shall give the Contractor at least twenty (20) days' prior written notice that (subject to Clause 4.4.2) the Step-in Period will end due to the occurrence (subject to Clause 4.7 (*Extension of Step-in Period*) of the first anniversary of the Step-in Date;

provided that:

(a) the Board has performed and discharged in full or procured the performance and discharge in full of any obligations of Project Co under the Construction Contract in relation to the maintenance of records and the provision of reports during the Step-in Period so as to permit the Contractor to monitor the performance of Project Co's other obligations under the Construction Contract; and

(b) all liability under the Step-in Undertaking pursuant to any claims made up to the date specified in either Clause 3.4.1 or Clause 3.4.2 (as the case may be) shall have been fully and unconditionally discharged,

the Board shall be released from the Step-in Undertaking on the expiry of the Step-in Period in accordance with Clauses 3.4.1 and3.4.2. Such release shall not affect the continuation of Project Co's obligations towards the Contractor under the Construction Contract.

4 NOVATION

4.1 Proposed Substitute

At any time that the Board is entitled to give a Step-in Notice pursuant to Clause 3.1 (*Step-in Notice*) or at any time during the Step-in Period the Board may give notice (copied to the Funder) (a "**Proposed Novation Notice**") to the Contractor that it wishes itself or another person (a "**Proposed Substitute**") to assume, by way of sale, transfer or other disposal, the rights and obligations of Project Co under the Construction Contract and specifying a date (the "**Proposed Novation Date**"):

4.1.1 falling not later than fifteen (15) Business Days after termination of the Design Build Finance and Maintain Agreement where this has been terminated by the Board;

4.1.2 falling not later than the expiry of the Termination Notice where a Proposed Novation Notice is given by the Board at a time when it is entitled to give a Step-in Notice pursuant to Clause 3.1 (*Step-in Notice*); and

4.1.3 falling not later than twenty-eight (28) Business Days after the date of the Proposed Novation Notice, where a Proposed Novation Notice is given during a Step-in Period.

Save as provided in Clause 4.4 (*Consent Withheld*), only one Proposed Novation

Notice may be given during the period of this Agreement. Without prejudice to Clauses 3.3 (*Restriction of Right of Termination*) and 5.1 (*Rights of Termination*), the Contractor shall not be entitled to terminate the Construction Contract during the notice period specified in a Proposed Novation Notice.

4.2 **Information for Consent to Novation**

If the Proposed Novation Notice specifies the Board as the Proposed Substitute, the Contractor's consent to the novation shall be deemed to have been given automatically. Where the Proposed Substitute is not the Board, a novation in accordance with a Proposed Novation Notice shall only be effective if the Contractor consents to that novation in writing in accordance with Clause 4.3 *(Grant of Consent*) and the Board shall (as soon as practicable) supply the Contractor with the following information (copied to the Funder):

4.2.1 the name and registered address of the Proposed Substitute;

4.2.2 the names of the shareholders in the Proposed Substitute and the share capital owned by each of them;

4.2.3 the names of the directors and the secretary of the Proposed Substitute;

4.2.4 details of the means by which it is proposed to finance the Proposed Substitute (including the extent to which such finance is committed and any conditions precedent as to its availability for drawing); and

4.2.5 the resources (including contractual arrangements) which are to be available to the Proposed Substitute to enable it to perform its obligations under the Construction Contract.

4.3 **Grant of Consent**

The Contractor may withhold or delay consent to a novation only where the Proposed Substitute is not the Board and the Board has failed to show to the Contractor's satisfaction (acting reasonably) that:

4.3.1 the Proposed Substitute has the legal capacity, power and authorisation to become a party to and perform the obligations of Project Co under the Construction Contract; and

4.3.2 the technical competence and financial standing of and the technical and financial resources available to the Proposed Substitute are sufficient to perform the obligations of Project Co under the Construction Contract.

The Contractor shall notify the Board in writing, within five (5) Business Days of the later of receipt of a Proposed Novation Notice and all information required under Clause 4.2 (*Information for Consent to Novation*), as to whether or not it has decided

to grant such consent (together with an explanation of its reasons if it has decided to withhold its consent).

4.4 **Consent withheld**

If, in accordance with Clause 4.3 (*Grant of Consent*), the Contractor withholds its consent to a Proposed Novation Notice, the Board shall be entitled to give one or more subsequent Proposed Novation Notices, pursuant to the provisions of Clause 4.1 (*Proposed Substitute*), containing changed particulars relating to the same Proposed Substitute or particulars relating to another Proposed Substitute which (where the replacement Proposed Substitute is not the Board) the Board has good cause to believe would fulfil the requirements of Clauses 4.3.1 and4.3.2, provided that only one Proposed Novation Notice may be outstanding at any one time, and provided further that:

4.4.1 where a Step-in-Notice has not been issued, any revised Proposed Novation Date shall be a date falling no later than the date specified in Clause 4.1.1 or 4.1.2 as appropriate; and

4.4.2 if the Proposed Novation Notice was served during the Step-in Period, any revised Proposed Novation Date shall be a date falling not later than twenty-eight (28) Business Days after the date of the revised Proposed Novation Notice.

4.5 **Implementation of Novation**

4.5.1 If the Contractor consents to a novation pursuant to a Proposed Novation Notice (whether automatically or otherwise), then on the Proposed Novation Date and without prejudice to Clause 5.1 (*Rights of Termination*),

(a) following notification pursuant to Clause 4.1 (*Proposed Substitute*) and in the absence of any prior release in accordance with Clause 3.2.5, the Funder shall, on or before the Proposed Novation Date, take any action which is necessary unconditionally and irrevocably to release the Construction Contract and the Parent Company Guarantee from the security constituted by the Security Documents; and

(b) Project Co shall immediately assign all its rights and powers under the Parent Company Guarantee to the Board in accordance with clause [insert reference] of the same and on the Proposed Novation Date and without prejudice to Clause 5.1 (*Rights of Termination*).

4.5.2 Subject to the prior performance by the Funder and Project Co of their respective obligations under Clause 4.5.1(a) and Clause 4.5.1(b) the Proposed Substitute shall become a party to the Construction Contract in place of Project Co and, thereafter, shall be treated as if it was and had always been named as a party to the Construction Contract in place of Project Co; and

(a) the Contractor, Project Co and the Proposed Substitute shall enter into a novation agreement (the "**Novation Agreement**") and any other requisite agreements, in form and substance satisfactory to the Contractor (acting reasonably), pursuant to which:

(i) the Proposed Substitute shall be granted all of the rights of Project Co under the Construction Contract (including those arising prior to the end of the Step-in Period);

(ii) subject to the Contractor giving to the Proposed Substitute within three (3) Business Days of receipt of the Proposed Novation Notice such notice as is referred to in Clause 3.2.1 and to the provisions of Clauses 3.2.2 and3.2.3, mutatis mutandis, the Proposed Substitute shall assume all of the obligations and liabilities of Project Co under the Construction Contract (including those arising prior to the end of any Step-in Period and those arising during the period of the Proposed Novation Notice);

provided that the Contractor will not be in breach of any of its obligations under this Agreement if the Proposed Substitute does not enter into one or other of such agreements.

4.5.3 On and after the Novation Effective Date:

(a) the Contractor shall owe its obligations under the Construction Contract (whether arising before, on or after such date) to the Proposed Substitute and the receipt, acknowledgement or acquiescence of the Proposed Substitute shall be a good discharge; and

(b) if the Board shall have entered into a Step-in Undertaking, the Board will be released from the Step-in Undertaking, provided that:

(i) all obligations of the Board under the Step-in Undertaking which have accrued up to the Novation Effective Date and are identifiable as at that date shall have been fully and unconditionally discharged; and

(ii) the Board has performed and discharged in full or procured the performance and discharge in full of the obligations of Project Co under the Construction Contract in relation to the maintenance of records and the provision of reports during the Step-in Period up to the Novation Effective Date so as to permit the Contractor to monitor the performance of Project Co's other obligations under the Construction Contract.

4.5.4 the Board and the Contractor shall use all reasonable endeavours to agree and the Board shall use reasonable endeavours to procure that the Proposed Substitute agrees any amendments to the Construction Contract

necessary to reflect Clause 3.2.2 and the fact that the Design Build Finance and Maintain Agreement may have terminated at the time of the Novation Effective Date.

4.6 **Termination After Novation**

After the Novation Effective Date the Contractor shall only be entitled to exercise its rights of termination under the Construction Contract:

4.6.1 in respect of any Event of Project Co Default arising after that date in accordance with the Construction Contract; or

4.6.2 if the Proposed Substitute does not discharge the obligations and liabilities assumed by it under Clause 4.5.2(a) which relate to matters arising prior to the end of the Step-in Period within fifteen (15) Business Days following the Novation Effective Date.

4.7 **Extension of Step-In Period**

As at the date of the first anniversary of the Step-in Date, if the Step-in Period has not previously ended, and:

4.7.1 the Board is in the course of conducting discussions in good faith with a Proposed Substitute (the novation to whom has been approved by the Contractor whether automatically or otherwise in accordance with Clause 4.3 (*Grant of Consent*)), the Step-in Period shall be extended and shall continue until such date as is proposed by the Board and agreed by the Contractor; or

4.7.2 a contract has been entered into between the Board and a Proposed Substitute (which has been approved by the Contractor in accordance with Clause 4.3 (*Grant of Consent*)) as at such date,

the Step-in Period shall be extended and shall continue until the date such contract comes into force, provided that such date shall not be later than thirty (30) Business Days after the last date of execution of such contract.

5 RIGHTS AND OBLIGATIONS UNDER THE CONSTRUCTION CONTRACT

5.1 **Rights of Termination**

If:

5.1.1 no Step-in Notice or Proposed Novation Notice is given before a Termination Notice expires or within twenty (20) Business Days after termination of the Design Build Finance and Maintain Agreement by the

Board; or

5.1.2 a Step-in Undertaking is not issued on the Proposed Step-in Date; or

5.1.3 the Step-in Notice is withdrawn or, pursuant to Clause 3.2.7, deemed to have been withdrawn; or

5.1.4 the Step-in Period ends before the occurrence of the Novation Effective Date; or

5.1.5 in the absence of a Step-in Undertaking, the Contractor withholds its consent to a novation pursuant to a Proposed Novation Notice, in accordance with Clause 4.3 (*Grant of Consent*), and does not subsequently grant consent to a novation in accordance with Clause 4.4 (*Consent Withheld*) on or before the Proposed Novation Date; or

5.1.6 in the absence of a Step-in Undertaking, the obligations of the Proposed Substitute set out in Clause 4.5 (*Implementation of Novation*) are not performed on the Proposed Novation Date; or

5.1.7 the Contractor is entitled to terminate the Construction Contract under Clause 3.3 (*Restriction of Right of Termination*) or 4.6 (*Termination after Novation*); or

5.1.8 the Board exercises its right to Step-out under Clause 3.4.1,

the Contractor shall, on and from the Step-out Date, be entitled to:

5.1.9 exercise all of its rights under the Construction Contract and act upon any and all grounds for termination available to it in relation to the Construction Contract whenever occurring; and/or

5.1.10 pursue any and all claims and exercise any and all rights and remedies against Project Co.

5.2 **Project Co's Obligations to Continue**

Until completion of a novation pursuant to Clause 4.5 (*Implementation of Novation*) (unless the terms of such novation expressly preserve an obligation or liability of Project Co), Project Co shall continue to be liable for all its obligations and liabilities, whenever occurring, under or arising from the Construction Contract notwithstanding:

5.2.1 the service of a Step-in Notice or the issue of a Step-in Undertaking or the expiry of the Step-in Period or the release of a Step-in Undertaking; or

5.2.2 the service of a Proposed Novation Notice; or

5.2.3 any other provision of this Agreement.

6 REVOCATION OF NOTICES

A Termination Notice and a Step-in Notice may each be revoked (in writing to the recipient) by the Party giving them before the expiry of their respective notice periods. Upon any such revocation, the rights and obligations of the Parties shall be construed as if the relevant notice had not been given.

7 ASSIGNATION

7.1 Binding on Successors and Assignees

This Agreement shall be binding on and shall enure to the benefit of the Parties and their respective successors and permitted assignees. In the case of the Board, its successors shall include any person to which the [Scottish Ministers], in exercising their statutory powers to transfer property, rights and liabilities of the Board upon the Board ceasing to exist, transfers the rights and obligations of the Board under this Agreement.

7.2 Restriction on Assignation

No Party shall assign or transfer any part of its respective rights or obligations under this Agreement without the prior consent of the others (such consent not to be unreasonably withheld or delayed), provided that:

7.2.1 Project Co shall not assign this Agreement to any party other than a party to whom Project Co's interests in the Design Build Finance and Maintain Agreement and Construction Contract are assigned in accordance with the terms of the Design Build Finance and Maintain Agreement and Construction Contract respectively;

7.2.2 the Board shall be entitled, without the consent of any other Party, to transfer all its rights and obligations hereunder, to any person to whom it assigns or otherwise disposes of the benefit of the Design Build Finance and Maintain Agreement in accordance with Clause 57 (*Assignation and Sub-Contracting*) of the Design Build Finance and Maintain Agreement and, otherwise, with Project Co's and the Contractor's consent (not to be unreasonably withheld or delayed);

7.2.3 nothing in this sub-clause shall restrict the rights of the [Scottish Ministers] to effect a statutory transfer;

7.2.4 the Contractor shall assign this Agreement to any party to whom it assigns the Construction Contract (in accordance with the terms of that agreement).

7.2.5 the Funder may assign or transfer its rights and obligations to a successor trustee of the Funders under the Funding Agreement without the consent of any other Party and this Clause 7.2 shall not prevent any Funder assigning or transferring its rights under the Funding Agreements and the Security Documents in accordance with the terms of the Funding Agreements.

7.3 **No Loss**

The Contractor agrees that it shall not at any time assert that any permitted assignee in terms of this Agreement is precluded from recovering any loss resulting from any breach of this Agreement by reason that such assignee is not an original party to this Agreement or that no loss or a different loss has been suffered by such assignee.

8 CONFIDENTIALITY

8.1 The parties shall be bound to observe, mutatis mutandis, the terms of Clause [insert reference] of the Construction Contract with respect to any information or document referred to in Clause [insert reference] of the Construction Contract which shall come into its possession pursuant to this Agreement.

8.2 The Contractor agrees that the Board shall be entitled to disclose the terms of this Agreement in accordance with Clause 61 (*Confidentiality*) of the Design Build Finance and Maintain Agreement.

9 NOTICES

Any notice given under this Agreement shall be deemed to be duly given if it is delivered by hand or sent by recorded delivery to the party named therein at the address of such party shown in this Agreement or such other address as such party may by notice in writing nominate for the purpose of service and if sent by recorded delivery shall be deemed (subject to proof to the contrary) to have been received forty eight (48) hours after being posted.

10 PAYMENTS AND TAXES

10.1 **Payments**

All payments under this Agreement to any Party shall be made in pounds sterling by electronic transfer of funds for value on the day in question to the bank account of the recipient (located in the United Kingdom) specified to the other Parties from time to time.

10.2 **VAT**

10.2.1 All amounts stated to be payable by any Party under this Agreement shall be exclusive of any VAT properly payable in respect of the supplies to which

they relate.

10.2.2 Each Party shall pay any VAT properly payable hereunder in respect of any supply made to it under this Agreement, provided that it shall first have received a valid tax invoice in respect of that supply which complies with the requirements of Part III VAT Regulations 1995.

10.3 **Deductions from payments**

All sums payable by a Party to any other Party under this Agreement shall be paid free and clear of all deductions or withholdings whatsoever in respect of taxation, save as may be required by Law.

11 DEFAULT INTEREST

Each Party shall be entitled, without prejudice to any other right or remedy, to receive interest on any payment not made on the due date calculated from day to day at a rate per annum equal to the Default Interest Rate from the day after the date on which payment was due up to and including the date of payment.

12 AGGREGATE LIABILITY

Notwithstanding any other provision of this Agreement, the Contractor's liability from time to time under this Agreement shall not at any time exceed its maximum liability as stated in the Construction Contract.

13 PROFESSIONAL INDEMNITY INSURANCE

13.1 The Contractor by this Agreement covenants with the Board that it has at its own cost taken out, or procured the taking out of, professional indemnity insurance with reputable insurers carrying on business in the European Union with a limit of indemnity of not less than £[10,000,000] ([ten] million pounds) in the annual aggregate with at least one annual reinstatement, in relation to the Works, provided always that:

13.2 such insurance shall be in place from the commencement of the Works until no less than 12 years after the Actual Completion Date or, if earlier, after the date of termination of the Construction Contract;

13.3 the insurance premiums in respect of the insurance shall at all times be the responsibility of the Contractor;

13.4 if such insurance is not available to the Contractor (and/or design and build contractors engaged in projects of a similar scope, size, nature and complexity as the Contractor) at commercially reasonable rates and terms (excluding any increase in premiums attributable to the actions, omissions, errors or defaults of the Contractor), the Contractor and the Board will meet and the Contractor will outline the steps it

intends to take to manage such risks. If the steps proposed by the Contractor are not acceptable to the Board (acting reasonably), the Contractor and the Board shall agree an alternative method of managing such risk.

13.5 The Contractor will, upon request, provide the Board with reasonable evidence that the policy referred to in this Clause 13 (*Professional Indemnity Insurance*) is in full force and effect in accordance with the requirements of this Clause 13 (P*rofessional Indemnity Insurance*).

14 THIRD PARTY RIGHTS

It is agreed that this Agreement is not intended to, and does not, give to any person who is not a party to this Agreement any rights to enforce any provisions contained herein except for any person to whom the benefit of this Agreement is assigned or transferred in accordance with Clause 7 (*Assignation*).

15 AGENCY

15.1 No Delegation

No provision of this Agreement shall be construed as a delegation by the Board of any of its statutory Board to any other Party.

15.2 No Agency

Save as otherwise provided in this Agreement, no other Party shall be or be deemed to be an agent of the other Parties nor shall any party hold itself out as having Board or power to bind the other parties in any way.

15.3 Independent Contractor

The Parties shall, at all times, be independent contractors and nothing in this Agreement shall be construed as creating any partnership between the Parties or any relationship of employer and employee between the Parties.

16 WHOLE AGREEMENT

16.1 This Agreement (when read together with the Design Build Finance and Maintain Agreement, the Construction Contract and the Parent Company Guarantee)supersedes all previous agreements and understandings between the Parties with respect thereto and each of the Parties acknowledges and confirms that it does not enter into this Agreement in reliance on any representation, warranty or other undertaking not fully reflected in the terms of this Agreement.

16.2 Nothing in this Agreement is intended to or shall operate so as to exclude or limit any liability for fraud or fraudulent misrepresentation.

17 **WAIVER**

Failure by any Party at any time to enforce any provision of this Agreement or to require performance by the other Parties of any provision of this Agreement shall not be construed as a waiver of such provision and shall not affect the validity of this Agreement or any part of it or the right of the relevant Party to enforce any provision in accordance with its terms.

18 **SEVERABILITY**

If any condition, Clause or provision of this Agreement not being of a fundamental nature, is held to be illegal or unenforceable, the validity or enforceability of the remainder of this Agreement shall not be affected thereby.

19 **COSTS AND EXPENSES**

Each Party shall be responsible for paying its own costs and expenses incurred in connection with the negotiation, preparation and execution of this Agreement.

20 **AMENDMENTS**

No amendment to this Agreement shall be binding unless in writing and signed by the duly authorised representatives of the Parties.

21 **GOVERNING LAW AND JURISDICTION**

21.1 **Law**

This Agreement shall be governed by and construed in all respects in accordance with Scottish law.

21.2 **Jurisdiction**

The Parties each submit to the jurisdiction of the Scottish Courts as regards any claim or matter arising in relation to this Agreement.

IN WITNESS WHEREOF these presents consisting of this and the [ ] preceding pages are executed as follows:-

SECTION 2

SERVICE PROVIDER COLLATERAL AGREEMENT

COLLATERAL WARRANTY

AMONG:

(1) **LOTHIAN HEALTH BOARD**, a health board constituted in Scotland under the National Health Service (Constitution of Health Boards) (Scotland) Order 1974 (S.I. 1974/267) as amended by the National Health Service (Constitution of Health Boards) (Scotland) Amendment Order 2003 (S.S.I. 2003/217) pursuant to Section 2 of the National Health Service (Scotland) Act 1978 as amended by section 28 of the National Health Service and Community Care Act 1990 and having its principal address at Waverley Gate, 2-4 Waterloo Place, Edinburgh EH1 3EG (the **"Board"**);

(2) [SERVICE PROVIDER] (the "**Service Provider**");

(3) [PROJECT CO] ("**Project Co**"); and

(4) [FUNDER] ("**Funder**") being one of the Funders.

WHEREAS:

(A) The Board and Project Co have agreed the terms on which Project Co will design, develop and construct and provide certain services in connection with the reprovision of services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France (the "**Development**") at the Site and Off-Site (as such expressions are defined in the Design Build Finance and Maintain Agreement) and, accordingly, have entered into the Design Build Finance and Maintain Agreement and the Project Documents.

(B) Project Co has entered into the Funding Agreement (as defined in the Design Build Finance and Maintain Agreement with the Funder.

(C) The Service Provider and Project Co have entered into an agreement of even date herewith relating to the provision of certain of the Services (as defined in the Design Build Finance and Maintain Agreement) by the Service Provider to enable Project Co to discharge its obligations to the Board regarding such Services under the Design Build Finance and Maintain Agreement and the Project Documents (the "**Service Contract**").

(D) This Service Provider's Collateral Agreement (the "**Agreement**") is one of the Service Providers' Collateral Agreements contemplated by the Design Build Finance and Maintain Agreement.

NOW IT IS HEREBY AGREED as follows:

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, the following terms shall, unless the context otherwise requires, have the following meanings:

"Ancillary Documents"	has the meaning given in the Design Build Finance and Maintain Agreement;

"Business Day"	means a day other than a Saturday, Sunday or a bank holiday in Scotland;
"Design Build Finance and Maintain Agreement"	means the Design Build Finance and Maintain Agreement of even date herewith between (1) the Board and (2) Project Co;
"Event of Project Co Default"	has the meaning given in the Service Contract;
"Funders"	means [ ];
"Funders' Direct Agreement"	is the agreement of even date herewith between, amongst others, the Board,. Project Co, and the Funder;
"Funders' Service Provider Direct Agreement"	means the agreement of even date herewith between, amongst others, Project Co, the Service Provider and the Funder;
"Funding Agreements"	has the meaning given in the Design Build Finance and Maintain Agreement;
"Novation Agreement"	has the meaning given in Clause 4.5.3(b);
"Novation Effective Date"	means the date of performance of the obligations set out in Clause 4 (*Novation*);
"Parent Company Guarantee"	has the meaning given in the Service Contract;
"Proposed Novation Date"	has the meaning given in Clause 4.1 (*Proposed Substitute*);
"Proposed Novation Notice"	has the meaning given in Clause 4.1 (*Proposed Substitute*);
"Proposed Step-in Date"	has the meaning given in Clause 3.1 (*Step-in Notice*);
"Proposed Substitute"	has the meaning given in Clause 4.1 (*Proposed Substitute*);
"Security Documents"	has the meaning given in the Funders' Direct Agreement;
"Service Contract"	has the meaning given in the Design Build Finance and Maintain Agreement;
"Step-in Date"	means the date of issue of the Step-in Undertaking;
"Step-in Notice"	has the meaning given in Clause 3.1 (*Step-in Notice*);
"Step-in Period"	means the period commencing on the Step-in Date and ending on the earliest of: (a) the date of the first anniversary of the Step-in Date (but subject always to

Clause 4.7 (*Extension of Step-in Period*));

(b) the Step-out Date;

(c) the Novation Effective Date; and

(d) termination of the Service Contract under Clause 3.3 (*Restriction of Right of Termination*);

"Step-in Undertaking" has the meaning given in Clause 3.2.4;

"Step-out Date" has the meaning given in Clause 3.4.1;

"Termination Notice" has the meaning given in Clause 2.4 (*Termination Notice*).

1.2 **Interpretation**

Save to the extent that the context or the express provisions of this Agreement otherwise require:

1.2.1 headings and sub-headings are for ease of reference only and shall not be taken into consideration in the interpretation or construction of this Agreement;

1.2.2 all references to Clauses are references to Clauses of this Agreement;

1.2.3 all references to agreements, documents or other instruments include (subject to all relevant approvals) a reference to that agreement, document or instrument as amended, supplemented, substituted, novated or assigned from time to time;

1.2.4 all references to any statute or statutory provision shall include references to any statute or statutory provision which amends, extends, consolidates or replaces the same or which has been amended, extended, consolidated or replaced by the same and shall include any orders, regulations, codes of practice, instruments or other subordinate legislation made under the relevant statute or statutory provision;

1.2.5 any reference to time of day shall be a reference to Edinburgh time;

1.2.6 the words "herein", "hereto" and "hereunder" refer to this Agreement as a whole and not to the particular Clause in which such word may be used;

1.2.7 words importing the singular include the plural and vice versa;

1.2.8 words importing a particular gender include all genders;

1.2.9 "person" includes any individual, partnership, firm, trust, body corporate, government, governmental body, authority, agency, unincorporated body of persons or association;

1.2.10 any reference to a public organisation shall be deemed to include a reference to any successor to such public organisation or any organisation or entity which has taken over the functions or responsibilities of such public organisation;

1.2.11 references to "Party" means a party to this Agreement and references to "Parties" shall be construed accordingly;

1.2.12 all monetary amounts are expressed in pounds sterling;

1.2.13 references to the word "includes" or "including" are to be construed without limitation;

1.2.14 the obligations of any Party under this Agreement are to be performed at that Party's own cost and expense;

1.2.15 terms used in this Agreement that are defined in the Design Build Finance and Maintain Agreement or the Ancillary Documents shall have the meanings given to them in the Design Build Finance and Maintain Agreement or the Ancillary Documents, as appropriate.

2 TERMINATION NOTICE AND BOARD TERMINATION

2.1 Service Provider's Warranties and Undertakings

The Service Provider warrants and undertakes to the Board that it has complied with and fulfilled and shall continue to comply with and fulfil its duties and obligations arising under or by virtue of the Service Contract, provided that the Board shall only be entitled to make a claim against the Service Provider under this Clause 2.1 (*Service Provider's Warranties and Undertakings*) if the Design Build Finance and Maintain Agreement has terminated and shall not be entitled to do so during the Step-in Period or after the Service Contract has been novated under Clause 4 (*Novation*).

2.2 Liability of Service Provider

Any liability arising from any claim for breach of the warranty under or pursuant to Clause 2.1 (*Service Provider's warranties and Undertakings*) shall be in addition to and without prejudice to any other present or future liability of the Service Provider to the Board (including, without prejudice to the generality of the foregoing, any liability in negligence) and shall not be released, diminished or in any other way be affected by any independent enquiry into any relevant matter which may be made or carried

out by or on behalf of the Board by any person nor by any action or omission of any person whether or not such action or omission might give rise to an independent liability of such person to the Board provided always that the Service Provider shall owe no greater duties or obligations to the Board under this Agreement than it owes or would have owed to Project Co under the Service Contract. Without prejudice to Clause 12 (*Aggregate Liability*), the Service Provider shall be entitled in any action or proceedings brought by the Board under this Agreement to rely on any limitation or exclusion of liability in the Service Contract and to raise equivalent rights in defence of liability (but excluding retention, set-offs and counterclaims) as it would have against Project Co under the Service Contract.

2.3 **Not Used**

2.4 **Termination Notice**

2.4.1 The Service Provider undertakes not to terminate the Service Contract on account of an Event of Project Co Default without first giving the Board not less than twenty (20) Business Days' prior written notice specifying the grounds for that termination. Subject to Clause 2.4.2 below any such notice shall be a "**Termination Notice**".

2.4.2 Where the Service Provider's right to terminate is subject to the terms of the Funders' Service Provider's Direct Agreement then the Service Provider shall notify the Board of the same as soon as reasonably practicable upon becoming aware of the provisions of the Funders' Service Provider's Direct Agreement applying. Thereafter as soon as the Service Provider becomes entitled to terminate the Service Contract free from the constraints contained in the Funders' Service Provider's Direct Agreement, whether upon the expiry of the Step-in Period (as such term is defined in the Funders' Service Provider's Direct Agreement) or otherwise, then the Service Provider undertakes to the Board not to terminate the Service Contract on account of an Event of Project Co Default (whether occurring before or after the Service Provider's right to terminate the Service Contract was free from the constraints of the Funders' Service Provider's Direct Agreement) without first giving the Board not less than [fifteen (15)] Business Days' prior notice specifying the grounds for that termination and noting that the Service Provider's right of termination is not subject to the Funders' Service Provider's Direct Agreement. Any such notice, other than one given in circumstances where there is no default under the Service Contract by Project Co or the Service Provider, shall for the purposes of this Agreement also be a Termination Notice and the provisions of this Agreement shall apply accordingly.

2.4.3 Notwithstanding any provision of the Service Contract to the contrary, on termination of the Design Build Finance and Maintain Agreement by the Board, the Parties agree that the Service Contract shall not come to an end except in accordance with the terms of this Agreement.

2.4.4 The Board acknowledges that it shall not be entitled to exercise its rights under Clauses 3 (*Step-in and Step-out*) and 4 (*Novation*):

(a) where the event giving rise to termination of the Design Build Finance and Maintain Agreement is a Service Provider Event of Default (as

that term is defined in the Service Contract) whether or not at the relevant time there has been notice to terminate the Service Contract for such Service Provider Event of Default;

(b) until the Funder has released its security over the Service Contract; or

(c) until the Funder has confirmed to the Board in writing that it has no further claims or interest in the claims of Project Co or any Suitable Substitute Contractor (as such term is defined in the Funders' Service Provider Direct Agreement) against the Service Provider whether pursuant to the Security Documents, the Service Contract or the enforcement of any rights under the Security Documents or the Funders' Service Provider Direct Agreement.

3 STEP-IN AND STEP-OUT

3.1 Step-in Notice

3.1.1 If the Board has terminated the Design Build Finance and Maintain Agreement in accordance with the terms of the Design Build Finance and Maintain Agreement or if the Board has received a Termination Notice, then subject to the provisions of this Agreement, the Board may give written notice to the Service Provider (copied to the Funder) (a "**Step-in** Notice") of the intention of the Board to issue a Step-in Undertaking on a specified date (the "**Proposed Step-in Date**") provided that such Proposed Step-in Date shall be:

(a) no later than five (5) Business Days after termination of the Design Build Finance and Maintain Agreement where this has been terminated by the Board; and

(b) no earlier than the date falling five (5) Business Days prior to the date of expiry of the Termination Notice and no later than the date of expiry of the Termination Notice where a Termination Notice has been given by the Service Provider.

3.1.2 Unless the Service Provider otherwise consents, only one Step-in Notice may be given during the period of this Agreement. Subject to Clause 5.1 (*Rights of Termination*) below, the Service Provider shall not be entitled to terminate the Service Contract until after the Proposed Step-in Date.

3.2 Notice of Obligations and Step-in Undertaking

3.2.1 Within three (3) Business Days of receipt of any Step-in Notice, the Service Provider shall give written notice to the Board of any sums of which the Service Provider has actual knowledge which are due and payable but unpaid by Project Co and of any other material obligations or liabilities, of which the Service Provider has actual knowledge, which should have been

performed or discharged by Project Co under the Service Contract, in each case, as at the date of the Step-in Notice.

3.2.2 The Service Provider shall inform the Board in writing as soon as reasonably practicable of:

(a) any change in such sums, obligations or liabilities referred to in Clause 3.2.1; and

(b) any further sums, obligations or liabilities thereafter falling due and payable but unpaid or falling due for performance or discharge and unperformed or undischarged (as the case may be);

in each case of which the Service Provider has actual knowledge, before the Step-in Date.

3.2.3 The Service Provider shall give the Board the information referred to in Clauses 3.2.1 and 3.2.2 in good faith and may not give any further notifications pursuant to Clause 3.2.2 less than [two (2)] Business Days prior to the Proposed Step-in Date. The Board shall not be required to assume any liability under a Step-in Undertaking for any outstanding obligations or liabilities of Project Co to the Service Provider which are not notified to the Board pursuant to Clauses 3.2.1 or3.2.2.

3.2.4 Not later than the Proposed Step-in Date the Board shall decide if it is prepared to issue a Step-in Undertaking. If it does so decide, the Board shall promptly give the Service Provider written notification of such decision and, at the same time, provide a copy of such notification to the Funder. The Board shall deliver to the Service Provider on the Proposed Step-in Date, a written undertaking in form and substance agreed with the Service Provider (both the Board and the Service Provider acting reasonably) (the "**Step in Undertaking**"), incorporating a clause in terms similar to Clause 11 (*Default Interest*) (but only to the extent that there will not be double counting of default interest accruing under the Service Contract and this Agreement), and undertaking to the Service Provider:

(a) to pay or procure the payment to the Service Provider, within twenty (20) Business Days of demand by the Service Provider, of any sum due and payable but unpaid by Project Co to the Service Provider under the Service Contract before the Step-in Date and which has been notified by the Service Provider to the Board in accordance with Clause 3.2.1 or 3.2.2;

(b) to perform or discharge or procure the performance or discharge of any unperformed or undischarged obligations of Project Co under the Service Contract which shall have fallen due for performance or discharge before the Step-in Date and which have been notified by the Service Provider to the Board in accordance with Clause 3.2.1 or 3.2.2 within such period as the Service Provider may reasonably require;

(c) to pay or procure the payment of any sum due and payable by Project Co under the Service Contract as a result of any act or omission occurring during the Step-in Period which shall arise from any act or omission occurring after the Step-in Date (but subject to Clauses 3.4 (Step-Out) and4.5.3(b)) but not, to avoid doubt, any sum due in respect of any Services provided before the Step-in Date; and

(d) to perform or discharge or procure the performance or discharge of any obligations of Project Co under the Service Contract as a result of any act or omission occurring during the Step-in Period which shall arise from any act or omission occurring after the Step-in Date (but subject to Clauses 3.4 (Step-Out) and 4.5.3(b)) but not, to avoid doubt, to perform or discharge or to procure the performance or discharge of any obligations in respect of any Services provided before the Step-in Date.

3.2.5 Following notification of the Board's decision pursuant to Clause 3.2.4, the Funder shall, on or before the Proposed Step-in Date, take any action which is necessary unconditionally and irrevocably to release the Service Contract and the Parent Company Guarantee from the security constituted by the Security Documents.

3.2.6 Upon release by the Funder of its security over the Parent Company Guarantee in accordance with Clause 3.2.5 Project Co shall immediately assign all its rights and powers under the Parent Company Guarantee to the Board in accordance with clause [insert reference] of the same.

3.2.7 If the Board shall not have issued the Step-in Undertaking on or before the Proposed Step-in Date the Step-in Notice shall be deemed to have been withdrawn and the rights and obligations of the Parties shall be construed as if the Step-in Notice had not been given.

3.3 **Restriction of Right of Termination**

During or in respect of the Step-in Period, the Service Provider confirms to the Board that it shall continue to observe and perform its duties and obligations under the Service Contract and shall, without prejudice to Clause 5.1 (*Rights of Termination*), only be entitled to exercise its rights of termination under the Service Contract:

3.3.1 by reference to an Event of Project Co Default arising during the Step-in Period provided that no event of default by Project Co under the Design Build Finance and Maintain Agreement (whether resulting in termination of the Design Build Finance and Maintain Agreement or otherwise, and notwithstanding that it has occurred during the Step-in Period) shall entitle the Service Provider to exercise such rights of termination during the Step-in Period; or

3.3.2 if the Board, in breach of the terms of the Service Contract, fails to pay when due any amount owed to the Service Provider or fails to perform or discharge when falling due for performance or discharge any obligation under the Step-in Undertaking or fails to procure such payment or

performance or discharge; or

3.3.3 if such rights of termination arise in circumstances where there is no default under the Service Contract by the Board or the Service Provider.

3.4 **Step-Out**

3.4.1 the Board may, at any time, give the Service Provider at least twenty (20) days' prior written notice to terminate the Step-in Period on a date specified in the notice (the "**Step-out Date**");

3.4.2 the Board shall give the Service Provider at least twenty (20) days' prior written notice that (subject to Clause 4.4.2) the Step-in Period will end due to the occurrence (subject to Clause 4.7 (*Extension of Step-In Period*) of the first anniversary of the Step-in Date;

provided that:

(a) the Board has performed and discharged in full or procured the performance and discharge in full of any obligations of Project Co under the Service Contract in relation to the maintenance of records and the provision of reports during the Step-in Period so as to permit the Service Provider to monitor the performance of Project Co's other obligations under the Service Contract; and

(b) all liability under the Step-in Undertaking pursuant to any claims made up to the date specified in either Clause 3.4.1 or Clause 3.4.2 (as the case may be) shall have been fully and unconditionally discharged,

the Board shall be released from the Step-in Undertaking on the expiry of the Step-in Period in accordance with Clauses 3.4.1 and3.4.2. Such release shall not affect the continuation of Project Co's obligations towards the Service Provider under the Service Contract.

4 NOVATION

4.1 **Proposed Substitute**

At any time that the Board is entitled to give a Step-in Notice pursuant to Clause 3.1 (*Step-in Notice*) or at any time during the Step-in Period the Board may give notice (copied to the Funder) (a "**Proposed Novation Notice**") to the Service Provider that it wishes itself or another person (a "**Proposed Substitute**") to assume, by way of sale, transfer or other disposal, the rights and obligations of Project Co under the Service Contract and specifying a date (the "**Proposed Novation Date**"):

4.1.1 falling not later than fifteen (15) Business Days after termination of the

Design Build Finance and Maintain Agreement where this has been terminated by the Board;

4.1.2 falling not later than the expiry of the Termination Notice where a Proposed Novation Notice is given by the Board at a time when it is entitled to give a Step-in Notice pursuant to Clause 3.1 (*Step-in Notice*); and

4.1.3 falling not later than twenty-eight (28) Business Days after the date of the Proposed Novation Notice, where a Proposed Novation Notice is given during a Step-in Period.

Save as provided in Clause 4.4 (*Consent withheld*), only one Proposed Novation Notice may be given during the period of this Agreement. Without prejudice to Clauses 3.3 (*Restriction of Right of Termination*) and 5.1 (*Rights of Termination*), the Service Provider shall not be entitled to terminate the Service Contract during the notice period specified in a Proposed Novation Notice.

4.2 **Information for Consent to Novation**

If the Proposed Novation Notice specifies the Board as the Proposed Substitute, the Service Provider's consent to the novation shall be deemed to have been given automatically. Where the Proposed Substitute is not the Board, a novation in accordance with a Proposed Novation Notice shall only be effective if the Service Provider consents to that novation in writing in accordance with Clause 4.3 (*Grant of Consent*) and the Board shall (as soon as practicable) supply the Service Provider with the following information (copied to the Funder):

4.2.1 the name and registered address of the Proposed Substitute;

4.2.2 the names of the shareholders in the Proposed Substitute and the share capital owned by each of them;

4.2.3 the names of the directors and the secretary of the Proposed Substitute;

4.2.4 details of the means by which it is proposed to finance the Proposed Substitute (including the extent to which such finance is committed and any conditions precedent as to its availability for drawing); and

4.2.5 the resources (including contractual arrangements) which are to be available to the Proposed Substitute to enable it to perform its obligations under the Service Contract.

4.3 **Grant of Consent**

The Service Provider may withhold or delay consent to a novation only where the Proposed Substitute is not the Board and the Board has failed to show to the Service Provider's satisfaction (acting reasonably) that:

4.3.1 the Proposed Substitute has the legal capacity, power and authorisation to become a party to and perform the obligations of Project Co under the Service Contract; and

4.3.2 the technical competence and financial standing of and the technical and financial resources available to the Proposed Substitute are sufficient to perform the obligations of Project Co under the Service Contract.

The Service Provider shall notify the Board in writing, within five (5) Business Days of the later of receipt of a Proposed Novation Notice and all information required under Clause 4.2 (*Information for Consent to Novation*), as to whether or not it has decided to grant such consent (together with an explanation of its reasons if it has decided to withhold its consent).

4.4 **Consent withheld**

If, in accordance with Clause 4.3 (*Grant of Consent*), the Service Provider withholds its consent to a Proposed Novation Notice, the Board shall be entitled to give one or more subsequent Proposed Novation Notices, pursuant to the provisions of Clause 4.1 (*Proposed Substitute*), containing changed particulars relating to the same Proposed Substitute or particulars relating to another Proposed Substitute which (where the replacement Proposed Substitute is not the Board) the Board has good cause to believe would fulfil the requirements of Clauses 4.3.1 and4.3.2, provided that only one Proposed Novation Notice may be outstanding at any one time, and provided further that:

4.4.1 where a Step-in-Notice has not been issued, any revised Proposed Novation Date shall be a date falling no later than the date specified in Clause 4.1.1 or 4.1.2 as appropriate; and

4.4.2 if the Proposed Novation Notice was served during the Step-in Period, any revised Proposed Novation Date shall be a date falling not later than twenty-eight (28) Business Days after the date of the revised Proposed Novation Notice.

4.5 **Implementation of Novation**

4.5.1 If the Service Provider consents to a novation pursuant to a Proposed Novation Notice (whether automatically or otherwise), then on the Proposed Novation Date and without prejudice to Clause 5.1 (*Rights of Termination*):

(a) following notification pursuant to Clause 4.1 (Proposed Substitute) and in the absence of any prior release in accordance with Clause 3.2.5, the Funder shall, on or before the Proposed Novation Date, take any action which is necessary unconditionally and irrevocably to release the Construction Contract and the Parent Company Guarantee from the security constituted by the Security Documents; and

(b) Project Co shall immediately assign all its rights and powers under the Parent Company Guarantee to the Board in accordance with Clause [insert reference] of the same, and on the Proposed Novation Date and without prejudice to Clause 5.1 (*Rights of Termination*).

4.5.2 Subject to the prior performance by the Funder and Project Co of their respective obligations under Clause 4.5.1(a) and Clause 4.5.1(b) the Proposed Substitute shall become a party to the Service Contract in place of Project Co and, thereafter, shall be treated as if it was and had always been named as a party to the Service Contract in place of Project Co; and

(a) the Service Provider, Project Co and the Proposed Substitute shall enter into a novation agreement (the "Novation Agreement") and any other requisite agreements, in form and substance satisfactory to the Service Provider (acting reasonably), pursuant to which:

(i) the Proposed Substitute shall be granted all of the rights of Project Co under the Service Contract (including those arising prior to the end of the Step-in Period);

(ii) [subject to the Service Provider giving to the Proposed Substitute within [three (3)] Business Days of receipt of the Proposed Novation Notice such notice as is referred to in Clause 3.2.1 and to the provisions of Clauses 3.2.2 and 3.2.3 mutatis mutandis, the Proposed Substitute shall assume all of the obligations and liabilities of Project Co under the Service Contract (including those arising prior to the end of any Step-in Period and those arising during the period of the Proposed Novation Notice);]

provided that the Service Provider will not be in breach of any of its obligations under this Agreement if the Proposed Substitute does not enter into one or other of such agreements.

4.5.3 On and after the Novation Effective Date:

(a) the Service Provider shall owe its obligations under the Service Contract (whether arising before, on or after such date) to the Proposed Substitute and the receipt, acknowledgement or acquiescence of the Proposed Substitute shall be a good discharge; and

(b) if the Board shall have entered into a Step-in Undertaking, the Board will be released from the Step-in Undertaking, provided that:

(i) all obligations of the Board under the Step-in Undertaking which have accrued up to the Novation Effective Date and are identifiable as at that date shall have been fully and unconditionally discharged; and

(ii) the Board has performed and discharged in full or procured the performance and discharge in full of the obligations of Project Co under the Service Contract in relation to the maintenance of records and the provision of reports during the Step-in Period up to the Novation Effective Date so as to permit the Service Provider to monitor the performance of Project Co's other obligations under the Service Contract.

4.5.4 the Board and the Service Provider shall use all reasonable endeavours to agree and the Board shall use reasonable endeavours to procure that the Proposed Substitute agrees any amendments to the Service Contract necessary to reflect Clause 3.2.2 and the fact that the Design Build Finance and Maintain Agreement may have terminated at the time of the Novation Effective Date.

4.6 **Termination After Novation**

After the Novation Effective Date the Service Provider shall only be entitled to exercise its rights of termination under the Service Contract:

4.6.1 in respect of any Event of Project Co Default arising after that date in accordance with the Service Contract; or

4.6.2 if the Proposed Substitute does not discharge the obligations and liabilities assumed by it under Clause 4.5.2 which relate to matters arising prior to the end of the Step-in Period within[fifteen (15) Business Days following the Novation Effective Date.

4.7 **Extension of Step-In Period**

As at the date of the first anniversary of the Step-in Date, if the Step-in Period has not previously ended, and:

4.7.1 the Board is in the course of conducting discussions in good faith with a Proposed Substitute (the novation to whom has been approved by the Service Provider whether automatically or otherwise in accordance with Clause 4.3 (*Grant of Consent*)), the Step-in Period shall be extended and shall continue until such date as is proposed by the Board and agreed by the Service Provider; or

4.7.2 a contract has been entered into between the Board and a Proposed Substitute (which has been approved by the Service Provider in accordance with Clause 4.3 (*Grant of Consent*)) as at such date,

the Step-in Period shall be extended and shall continue until the date such contract comes into force, provided that such date shall not be later than thirty (30) Business Days after the last date of execution of such contract.

5 RIGHTS AND OBLIGATIONS UNDER THE SERVICE CONTRACT

5.1 Rights of Termination

If:

5.1.1 no Step-in Notice or Proposed Novation Notice is given before a Termination Notice expires or within twenty (20) Business Days after termination of the Design Build Finance and Maintain Agreement by the Board; or

5.1.2 a Step-in Undertaking is not issued on the Proposed Step-in Date; or

5.1.3 the Step-in Notice is withdrawn or, pursuant to Clause 3.2.7, deemed to have been withdrawn; or

5.1.4 the Step-in Period ends before the occurrence of the Novation Effective Date; or

5.1.5 in the absence of a Step-in Undertaking, the Service Provider withholds its consent to a novation pursuant to a Proposed Novation Notice, in accordance with Clause 4.3 (*Grant of Consent*), and does not subsequently grant consent to a novation in accordance with Clause 4.4 (*Consent Withheld*) on or before the Proposed Novation Date; or

5.1.6 in the absence of a Step-in Undertaking, the obligations of the Proposed Substitute set out in Clause 4.5 (*Implementation of Novation*) are not performed on the Proposed Novation Date; or

5.1.7 the Service Provider is entitled to terminate the Service Contract under Clause 3.3 (*Restriction of Right of Termination*) or 4.6 (*Termination after Novation*); or

5.1.8 the Board exercises its right to Step-out under Clause 3.4.1,

the Service Provider shall, on and from the Step-out Date, be entitled to:

5.1.9 exercise all of its rights under the Service Contract and act upon any and all grounds for termination available to it in relation to the Service Contract whenever occurring; and/or

5.1.10 pursue any and all claims and exercise any and all rights and remedies against Project Co.

5.2 Project Co's Obligations to Continue

Until completion of a novation pursuant to Clause 4.5 (*Implementation of Novation*) (unless the terms of such novation expressly preserve an obligation or liability of Project Co), Project Co shall continue to be liable for all its obligations and liabilities, whenever occurring, under or arising from the Service Contract notwithstanding:

5.2.1 the service of a Step-in Notice or the issue of a Step-in Undertaking or the expiry of the Step-in Period or the release of a Step-in Undertaking; or

5.2.2 the service of a Proposed Novation Notice; or

5.2.3 any other provision of this Agreement.

6 REVOCATION OF NOTICES

A Termination Notice and a Step-in Notice may each be revoked (in writing to the recipient) by the Party giving them before the expiry of their respective notice periods. Upon any such revocation, the rights and obligations of the Parties shall be construed as if the relevant notice had not been given.

7 ASSIGNATION

7.1 Binding on Successors and Assignees

This Agreement shall be binding on and shall enure to the benefit of the Parties and their respective successors and permitted assignees. In the case of the Board, its successors shall include any person to which the [Scottish Ministers], in exercising their statutory powers to transfer property, rights and liabilities of the Board upon the Board ceasing to exist, transfers the rights and obligations of the Board under this Agreement.

7.2 Restriction on Assignation

No Party shall assign or transfer any part of its respective rights or obligations under this Agreement without the prior consent of the others (such consent not to be unreasonably withheld or delayed), provided that:

7.2.1 Project Co shall not assign this Agreement to any party other than a party to whom Project Co's interests in the Design Build Finance and Maintain Agreement and Service Contract are assigned in accordance with the terms of the Design Build Finance and Maintain Agreement and Service Contract respectively;

7.2.2 the Board shall be entitled, without the consent of any other Party, to transfer all its rights and obligations hereunder, to any person to whom it assigns or otherwise disposes of the benefit of the Design Build Finance and Maintain Agreement in accordance with Clause 57 (*Assignation and Sub-Contracting*) of the Design Build Finance and Maintain Agreement and,

otherwise, with Project Co's and the Service Provider's consent (not to be unreasonably withheld or delayed);

7.2.3 nothing in this sub-clause shall restrict the rights of the Scottish Ministers to effect a statutory transfer;

7.2.4 the Service Provider shall assign this Agreement to any party to whom it assigns the Service Contract (in accordance with the terms of that agreement).

7.2.5 the Funder may assign or transfer its rights and obligations to a successor trustee of the Funders under the Funding Agreement without the consent of any other Party and this Clause 7.2 (*Restriction on Assignation*) shall not prevent any Funder assigning or transferring its rights under the Funding Agreements and the Security Documents in accordance with the terms of the Funding Agreements.

7.3 **No Loss**

The Services Provider agrees that it shall not at any time assert that any permitted assignee in terms of this Agreement is precluded from recovering any loss resulting from any breach of this Agreement by reason that such assignee is not an original party to this Agreement or that no loss or a different loss has been suffered by such assignee.

8 CONFIDENTIALITY

8.1 The parties shall be bound to observe, mutatis mutandis, the terms of Clause [●] of the Service Contract with respect to any information or document referred to in Clause [●] of the Service Contract which shall come into its possession pursuant to this Agreement.

8.2 The Service Provider agrees that the Board shall be entitled to disclose the terms of this Agreement in accordance with Clause 61 (*Confidentiality*) of the Design Build, Finance and Maintain Agreement.

9 NOTICES

Any notice given under this Agreement shall be deemed to be duly given if it is delivered by hand or sent by recorded delivery to the party named therein at the address of such party shown in this Agreement or such other address as such party may by notice in writing nominate for the purpose of service and if sent by recorded delivery shall be deemed (subject to proof to the contrary) to have been received forty eight (48) hours after being posted.

10 PAYMENTS AND TAXES

10.1 **Payments**

All payments under this Agreement to any Party shall be made in pounds sterling by electronic transfer of funds for value on the day in question to the bank account of the recipient (located in the United Kingdom) specified to the other Parties from time to time.

10.2 **VAT**

10.2.1 All amounts stated to be payable by any Party under this Agreement shall be exclusive of any VAT properly payable in respect of the supplies to which they relate.

10.2.2 Each Party shall pay any VAT properly payable hereunder in respect of any supply made to it under this Agreement, provided that it shall first have received a valid tax invoice in respect of that supply which complies with the requirements of Part III VAT Regulations 1995.

10.3 **Deductions from payments**

All sums payable by a Party to any other Party under this Agreement shall be paid free and clear of all deductions or withholdings whatsoever in respect of taxation, save as may be required by Law.

11 DEFAULT INTEREST

Each Party shall be entitled, without prejudice to any other right or remedy, to receive interest on any payment not made on the due date calculated from day to day at a rate per annum equal to the Default Interest Rate from the day after the date on which payment was due up to and including the date of payment.

12 AGGREGATE LIABILITY

Notwithstanding any other provision of this Agreement, the Service Provider's liability from time to time under this Agreement shall not at any time exceed its maximum liability as stated in the Service Contract.

13 THIRD PARTY RIGHTS

It is agreed that this Agreement is not intended to, and does not, give to any person who is not a party to this Agreement any rights to enforce any provisions contained herein except for any person to whom the benefit of this Agreement is assigned or transferred in accordance with Clause 7 (*Assignation*).

14 AGENCY

14.1 **No Delegation**

No provision of this Agreement shall be construed as a delegation by the Board of any of its statutory authority to any other Party.

14.2 **No Agency**

Save as otherwise provided in this Agreement, no other Party shall be or be deemed to be an agent of the other Parties nor shall any party hold itself out as having authority or power to bind the other parties in any way.

14.3 **Independent Contractor**

The Parties shall, at all times, be independent contractors and nothing in this Agreement shall be construed as creating any partnership between the Parties or any relationship of employer and employee between the Parties.

15 WHOLE AGREEMENT

15.1 This Agreement (when read together with the Design Build Finance and Maintain Agreement, the Service Contract and the Parent Company Guarantee) contains or supersedes all previous agreements and understandings between the Parties with respect thereto and each of the Parties acknowledges and confirms that it does not enter into this Agreement in reliance on any representation, warranty or other undertaking not fully reflected in the terms of this Agreement.

15.2 Nothing in this Agreement is intended to or shall operate so as to exclude or limit any liability for fraud or fraudulent misrepresentation.

16 WAIVER

Failure by any Party at any time to enforce any provision of this Agreement or to require performance by the other Parties of any provision of this Agreement shall not be construed as a waiver of such provision and shall not affect the validity of this Agreement or any part of it or the right of the relevant Party to enforce any provision in accordance with its terms.

17 SEVERABILITY

If any condition, Clause or provision of this Agreement not being of a fundamental nature, is held to be illegal or unenforceable, the validity or enforceability of the remainder of this Agreement shall not be affected thereby.

18 COSTS AND EXPENSES

Each Party shall be responsible for paying its own costs and expenses incurred in

connection with the negotiation, preparation and execution of this Agreement.

19 **AMENDMENTS**

No amendment to this Agreement shall be binding unless in writing and signed by the duly authorised representatives of the Parties.

20 **GOVERNING LAW AND JURISDICTION**

20.1 **Law**

This Agreement shall be governed by and construed in all respects in accordance with Scottish law.

20.2 **Jurisdiction**

The Parties each submit to the jurisdiction of the Scottish Courts as regards any claim or matter arising in relation to this Agreement.

IN WITNESS WHEREOF these presents consisting of this and the [ ] preceding pages are executed as follows:-

SECTION 3

KEY SUB-CONTRACTOR COLLATERAL AGREEMENT

COLLATERAL WARRANTY

AMONG:

LOTHIAN HEALTH BOARD, a health board constituted in Scotland under the National Health Service (Constitution of Health Boards) (Scotland) Order 1974 (S.I. 1974/267) as amended by the National Health Service (Constitution of Health Boards) (Scotland) Amendment Order 2003 (S.S.I. 2003/217) pursuant to Section 2 of the National Health Service (Scotland) Act 1978 as amended by section 28 of the National Health Service and Community Care Act 1990 and having its principal address at Waverley Gate, 2-4 Waterloo Place, Edinburgh EH1 3EG (the "**Beneficiary**" which expression shall include its successors in title or permitted assignees under this Agreement and for the Design Build Finance and Maintain Agreement and/or the Beneficiary's appointee);

and

[**Project Co**], a company incorporated in Scotland under the Companies Acts (Registered Number [ ]) and having its Registered Office at [ ] ("**Project Co**" which expression shall include its successors in title or permitted assignees under this Agreement);

and

[ ] LIMITED, a company incorporated in [Scotland/England and Wales/Northern Ireland] under the Companies Acts (Registered Number [ ]) and having its Registered Office at [ ] (the "**Contractor**" which expression shall include its successors in title or permitted assignees under this Agreement).

and

[ ] LIMITED, a company incorporated in [Scotland/England and Wales/Northern Ireland] under the Companies Acts (Registered Number [ ]) and having its Registered Office at [ ] (the "**Consultant**").

WHEREAS:

(A) The Beneficiary and Project Co have entered into an agreement for the design, build, finance and maintenance of a project to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France (the "**Project**") on or about the date hereof (the "**DBFM Agreement**").

(B) Project Co and the Contractor have entered into a contract (the "**Construction Contract**") on or about the date hereof for the design and construction of the Project (the "**Contract Works**").

(C) The Contractor has entered or intends to enter into an agreement with the Consultant whereby the Consultant will provide certain design services (the "**Services**") in connection with the Project ("**the Appointment**") as more particularly described in the Appointment.

(D) It is a condition of the Appointment that the Consultant enters this Agreement with the Beneficiary.

(E) The Beneficiary shall be entitled to rely and is deemed to have relied on the Consultant's reasonable skill, care and diligence in respect of all matters covered by this Agreement insofar as they relate to the Services provided by the Consultant under the Appointment.

NOW IT IS AGREED as follows:

1 WARRANTY AND UNDERTAKING

1.1 The Consultant warrants and undertakes to the Beneficiary that it has complied and will continue to comply with all the terms and obligations and duties under or arising out of the Appointment on the Consultant's part to be performed and observed and shall complete the Services in accordance with the Appointment.

1.2 Without prejudice to Clause 1.1 of this Agreement, the Consultant further warrants and undertakes to the Beneficiary that:

1.2.1 it has exercised and will continue to exercise all the due skill, care and diligence of a properly qualified and competent consultant experienced in providing design services on projects similar in nature, size and complexity to the Project in:

(a) the design of the Contract Works;

(b) the materials selected or specified by or on its behalf for use in the Contract Works (or any part or parts thereof) are in accordance with the guidance contained in the Good Practice Guidance and this Clause 1.2.1(b); and

(c) only materials and goods which are new and of sound and satisfactory quality shall be specified for use in connection with the Contract Works; and

(d) there shall not be specified for use in connection with the Contract Works any materials or substances which are expressly prohibited by the Construction Contract or which are generally known not to be in accordance with British or European Standards and Codes of Practice at the time of specification or use (as applicable), or any materials or substances which are deleterious to health and safety or to the curability of buildings and/or other structures and/or finishes and/or plant and machinery in the particular circumstances in which they are used, or any materials or substances identified as deleterious, unsatisfactory or unsuitable in the relevant circumstances in the Good Practice Guidance and, in addition to and separate from the foregoing, any substances or combination of substances publicised prior to the time of construction in any Building Research Establishment Limited ("BRE") publications issued as part of the BRE Professional development service which the BRE recommend are not used for building purposes or for the type of buildings comprised in the Project.

(e) the performance of the Services to the Contractor under the Appointment;

For the purposes of Clause 1.2.1, "**Good Practice Guidance"** means the edition of the publication entitles "Good practice in the selection of construction materials" (British Council for Offices (BCO): 2011) or any amended or updated version as at the Commencement

Date (as such term is defined in the Design Build Finance and Maintain Agreement)

1.2.2 the final design and all materials and goods specified therein will correspond as to description, quality and condition with the requirements of the Construction Contract;

1.2.3 the final design will at practical completion or its equivalent under the Construction Contract, as the case may be, comply with all relevant legislation and Good Industry Practice;

2 INSURANCE

2.1 The Consultant shall maintain throughout the duration of provision of the Services and for a period of 12 years after the date of practical completion or its equivalent under the Construction Contract, professional indemnity insurance in an amount of not less than [five] million pounds (£[5 ,000,000)] sterling on an each and every claim basis and for any one occurrence or series of occurrences arising out of any one event with insurer of good repute carrying on business in the European Union provided always that such insurance is available at rates which are commercially reasonable to consultants.

2.2 In determining whether or not insurance is available as aforesaid, the financial characteristics and claims' record of the Consultant shall be ignored.

2.3 The Consultant shall immediately inform the Beneficiary if such insurance ceases to be available at rates which are commercially reasonable in order that the Consultant and the Beneficiary can consider alternative means of best protecting their respective positions in respect of the Project in the absence of such insurance provided that the Beneficiary shall be entitled to require the Consultant to maintain such lesser amount of Professional Indemnity Insurance as is available to the Consultant at rates which are commercially reasonable.

2.4 As and when it is reasonably requested to do so by the Beneficiary the Consultant shall produce for inspection documentary evidence satisfactory to the Beneficiary (acting reasonably) that its Professional Indemnity Insurance is being maintained.

2.5 The Consultant confirms that this Agreement has been disclosed to and has been approved by the Consultant's Professional Indemnity Insurers or Underwriters.

2.6 Should the Consultant be in breach of any of its obligations under this Clause 2 (Insurance), the Beneficiary may itself insure against any risk with respect to which the breach shall have occurred and may recover such sum or sums from the Consultant as a debt.

3 COPYRIGHT

3.1 The Consultant hereby grants to the Beneficiary or its appointee and all those authorised by the Beneficiary an irrevocable, transferable, non-exclusive and royalty-

free licence (which shall be capable of assignation) to use and reproduce all information (whether or not stored in computer systems), drawings, models, bills of quantities, specifications, schedules, details, plans, programmes, budgets, reports, calculations or other documents, work or things including all applicable passwords or access codes whatsoever provided or to be provided by the Consultant in connection with the Services (the **"Documents"**) for such purposes as the Beneficiary may at its sole discretion require.

3.2 Such licence shall carry the right to grant sub-licences and shall subsist notwithstanding that the Appointment is terminated or the obligations and duties there under have been completed. For the avoidance of doubt, the grant of such licence or sub-licences shall not impose any additional liability on the Consultant.

3.3 The Consultant shall on reasonable demand provide to the Beneficiary or its appointee and those authorised by the Beneficiary additional copies of any documents on receipt of reasonable copying costs. The Consultant will not be liable for any use by the Beneficiary or any appointee or sub-licensee of any of the Documents for any purpose other than that for which the same were prepared and provided by the Consultant or for any improper or negligent use by the Beneficiary or any appointee or sub-licensee.

3.4 The Consultant agrees to indemnify and keep indemnified the Beneficiary from and against all loss, damage, cost, expense, liability or claim in respect of breach of the copyright or other intellectual property rights of any third party caused by or arising out of the carrying out of the Services or the use of the licence.

4 ASSIGNATION

4.1 This Agreement may be assigned or otherwise transferred, novated, in whole or in part by the Beneficiary to any successor to the Beneficiary's interest in the Project or any part thereof without the consent of the Consultant being required and such assignation shall be effective upon written notice thereof being given to the Consultant. No assignation of this Agreement by any other party shall be permitted.

4.2 The Consultant agrees that it shall not at any time assert that any permitted assignee in terms of this Agreement is precluded from recovering any loss resulting from any breach of this Agreement by reason that such assignee is not an original party to this Agreement or that no less or a different loss has been suffered by such assignee.

5 NO WAIVER OR VARIATION

5.1 No failure, approval, act or forbearance on the part of the Beneficiary in respect of any right of the Beneficiary pursuant to this Agreement shall constitute any waiver of any right of the Beneficiary under or arising out of this Agreement nor relieve the Consultant of any of its duties or obligations under or arising out of this Agreement.

5.2 The Consultant will not seek to modify or vary any of the obligations for which it is responsible under the Appointment in any respect if that modification or variation will be detrimental to the Beneficiary or affects the Beneficiary's rights or obligations under the DBFM Agreement, the Construction Contract or this Agreement or affects

the Consultant's obligations under this Agreement.

6 EQUIVALENT RIGHTS

The obligations of the Consultant under this Agreement shall be no greater in extent or quantity than if the Beneficiary had been named as joint employer with the Contractor under the Appointment. The Consultant shall be entitled in any action or proceedings by the Beneficiary to rely on any limitation in the Appointment and to raise the equivalent rights in defence of liability as it would have against the Contractor under the Appointment (other than retention, counterclaim, set-off or to state a defence of no loss or a different loss has been suffered by the Contractor).

7 NOTICES

7.1 Any notice, consent or demand to be given or made by any party under this Agreement (hereinafter called a "Notice") shall only be validly served if in writing and delivered personally or sent by pre-paid first class recorded delivery post or sent by fax to the following address and marked for the attention of the following person in the case of each party:

Party	Address	Fax Number	Person
The Beneficiary	[●]	[●]	[●]
Project Co	[●]	[●]	[●]
The Contractor	[●]	[●]	[●]
The Consultant	[●]	[●]	[●]

Any party may by Notice to the other party/parties change its address, fax number or the title of the person for whose attention Notices are to be given or made pursuant to this Clause. Any such Notice shall be deemed to have been received:

7.1.1 if delivered personally, at the time of delivery;

7.1.2 in the case of pre-paid first class recorded delivery post, on the first Business Day after the date of posting; and

7.1.3 in the case of a fax, at the time of transmission.

7.2 If any Notice is delivered or faxed after 5 p.m. on a Business Day, or at any time during a day which is not a Business Day, that Notice shall be deemed to have been received at 9 a.m. on the next Business Day.

7.3 For the purposes of this Clause 7 (*Notices*), "Business Day" means any day which is not a Saturday, a Sunday or a public holiday in Scotland. In proving service it shall be sufficient to prove that the envelope containing such Notice was properly addressed

to the relevant party and either delivered personally to that address or delivered into the custody of the postal authorities as a pre-paid first class recorded delivery letter, or that such Notice was transmitted by fax to the correct fax number of the relevant party (as demonstrated by the transmission slip). For the avoidance of doubt, Notices shall not be validly served if sent by e-mail.

7.4 The definitions of words and phrases used in this Agreement shall be those set out in the Construction Contract and Appointment except where expressly defined in this Agreement.

7.5 This Agreement shall be governed by and construed in accordance with Scots Law and the parties hereto submit to the exclusive jurisdiction of the Scottish Courts.

7.6 Save to the extent expressly provided in this Agreement no provision of this Agreement is intended to or does confer upon any third party any benefit or right enforceable at the option of that third party or any liability whatsoever to any third party, and without prejudice to the generality of the foregoing, there shall not in any circumstances be created by this Agreement a jus quaesitum tertio in favour of any person whatsoever.

IN WITNESS WHEREOF this Agreement consisting of this and the preceding [ ] pages is executed as follows:

SCHEDULE PART 10

OUTLINE COMMISSIONING PROGRAMME

1 PRE-COMPLETION COMMISSIONING

1.1 Project Co's Pre-Completion Commissioning shall comprise the activities described as such in Table A of Appendix A of this Schedule Part 10 *(Outline Commissioning Programme).*

1.2 Project Co shall give written notice to the Independent Tester and the Board's Representative of the commencement of Project Co's Pre-Completion Commissioning not less than five (5) Business Days prior to the date when Project Co (acting reasonably) considers that it shall commence Project Co's Pre-Completion.

1.3 The Board's Pre-Completion Commissioning shall comprise the activities identified as such in Table A of Appendix A of this Schedule Part 10 *(Outline Commissioning Programme).*

1.4 Project Co shall give written notice to the Board's Representative of the date upon which the Board shall be entitled to commence the Board's Pre-Completion Commissioning, such notice to be given at least [one (1) month] prior to the date when Project Co (acting reasonably) considers that the Board should commence the Board's Commissioning in accordance with the Final Commissioning Programme.

2. POST-COMPLETION COMMISSIONING

2.1 Project Co's Post-Completion Commissioning shall comprise the activities identified as such in Table A of Appendix A of this Schedule Part 10 *(Outline Commissioning Programme).*

2.2 The Board's Post-Completion Commissioning shall comprise the activities identified as such in Table A of Appendix A of this Schedule Part 10 *(Outline Commissioning Programme).*

3. EQUIPMENT AND TRAINING

3.1 Project Co shall not clean, or move to enable general cleaning, items of equipment so identified by the Board unless in agreement with the Board's Representative. This shall include but not be limited to:

(a) physiological monitoring equipment;

(b) department based computers, visual display units and radiographic equipment or machine consoles including anything bearing radiation or hazard Warning signs; and

(c) equipment that is plugged in for re-charging.

3.2 The Board shall ensure that any equipment of the Board that is transferred from an existing site is cleaned and disinfected prior to being transferred to the Facilities.

SCHEDULE PART 10: OUTLINE COMMISSIONING PROGRAMME

Appendix A: Commissioning Responsibilities

Table A:

Area	Pre-Completion Commissioning		Post-Completion Commissioning	
	Project Co's	**Board**	**Project Co's**	**Board**
Rooms/areas which only contains Group 1 Equipment to be installed by Project Co and Rooms/areas which contain Equipment to be installed/commissioned by the Board prior to Completion.	Project Co to install Group 1 Equipment as required in accordance with Schedule Part 11 (*Equipment*). Project Co to commission and test Group 1 equipment as required in accordance with Schedule Part 11 (*Equipment*). Project Co to carry out Handover Clean.	None required.	Project Co to carry out clinical clean in accordance with the Final Commissioning Programme.	Board to install, commission and test, Group 2A, 2B and 3 Equipment as required pursuant to Schedule Part 11 (*Equipment*) and the Final Commissioning Programme. Board transfer of patients to be carried out in accordance with the Final Commissioning Programme.

Area	Pre-Completion Commissioning		Post-Completion Commissioning	
	Project Co's	Board	Project Co's	Board's
Rooms/areas which only contains Group 1 Equipment to be installed by Project Co and Rooms/areas which contain Equipment to be installed/commissioned by the Board prior to Completion.	Project Co to install, commission and test Group 1 equipment as required in accordance with Schedule Part 11 (*Equipment*). Project Co to install, commission and test Group 2A equipment as required in accordance with Schedule Part 11 (*Equipment*). Project Co to carry out Handover Clean. Completion of Works after Board Group 2A equipment, Group 2B and Group 3 equipment installation. Project Co to insure Group 2B equipment in accordance with Schedule Part 11 (*Equipment*).	Board Group 2B equipment, and Group 3 equipment installed, connected, commissioned and tested in accordance with Schedule Part 11 (*Equipment*) and the Final Commissioning Programme. Board Group 2A equipment, Group 2B and Group 3 equipment protected by Project Co until after the Actual Completion Date.	Project Co to carry out clinical clean in accordance with the Final Commissioning Programme.	Board to install, commission, test and asset tag, Group 2B and 3 Equipment as required pursuant to Schedule Part 11 (*Equipment*) and the Final Commissioning Programme. Board transfer of patients to be carried out in accordance with the Final Commissioning Programme.

Area	Pre-Completion Commissioning		Post-Completion Commissioning	
	Project Co's	**Board**	**Project Co's**	**Board's**
ICT	Project Co infrastructure installed, commissioned and tested.	Board hardware installed, commissioned and tested (this being the network, servers and workstations in clinical and non clinical areas).	Project Co to carry out clinical clean in accordance with the Final Commissioning Programme.	Board hardware installed, commissioned, tested and asset tagged.

APPENDIX B – COMPLETION CRITERIA

1. GENERAL

1.1 General Requirements

1.1.1 Project Co shall provide such labour, materials, stores, test equipment, tools, instruments, apparatus and assistance as are reasonably required for the purpose of any inspection and where appropriate testing by the Independent Tester and shall be responsible for the provision of such electricity, fuel, water and other consumables and materials as may be reasonably required for the same. Invitations shall be furnished to the Board and its technical advisers to witness such inspections, testing and commissioning activities of the Works as the Board deems necessary. At least fourteen (14) Business Days' notice of any testing shall be given.

1.1.2 Project Co shall ensure that major items of Plant shall be tested during the Works for both performance and safety prior to dispatch and provide documentary evidence that testing has been carried out if requested by the Independent Tester. For the purposes of this paragraph "major items of Plant" shall include, but not be limited to, boilers, air handling units, generators, chillers, hv/mv switchgear and pressure vessels. Project Co shall arrange to witness specific unit factory testing of major items of Plant and shall furnish the Board and its technical advisers with the opportunity to witness all such factory testing. The Board and its technical advisers shall be given at least fourteen (14) Business Days' notice, or such reasonable notice as may be agreed, of such testing of major items of Plant.

2. WORKS INSPECTION, TESTING AND ACCEPTANCE ACTIVITIES

2.1 **Completion Criteria**

Project Co shall demonstrate that the following criteria (the **"Completion Criteria"**) has been achieved:

2.1.1 The building is structurally complete, all external fabric is complete, wind and watertight and air pressure testing complete. Internally all the finishes are complete in accordance with the Room Data Sheets;

2.1.2 The link to the existing RIE Facilities has been constructed in accordance with this Agreement and to the satisfaction of the Board;

2.1.3 All incoming Utilities including but not limited to power, water, gas and all relevant back up systems are tested, commissioned and operational;

2.1.4 All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets;

2.1.5 The building management system is complete, tested, commissioned and operational including the setting up of graphs, logs or equivalent;

2.1.6 All furniture and Equipment shown on the loaded room layout drawings (as supplemented by Schedule Part 11 (Equipment)) as Project Co's responsibility have been installed (and commissioned if appropriate);

2.1.7 All keys, access cards, access codes and other access devices along with any associated suiting, for access to all relevant areas of the Facilities, complete with all relevant schedules, including agreed suiting schedules are ready for handover to the Board;

2.1.8 Safe access and egress to and within the Facilities has been established;

2.1.9 The Works shall be free from all surplus materials, plant and equipment and shall comply with the standards and requirements of paragraph 3 (Handover Clean);

2.1.10 All internal and external drainage systems are installed and are operational including connections to the drainage as operated by Consort;

2.1.11 All external works as appropriate have been completed and are available for use by the Board;

2.1.12 All hard-landscaped external works, including roads, car parks, pavements and boundary walls/fences are complete and available for use by the Board;

2.1.13 All lift systems are complete, commissioned and operational; including connection and monitoring of lift car emergency call device;

2.1.14 All, building, directional, departmental, general information, room numbering and external signage as indicated within Project Co's Proposals and/or Reviewable Design Data and necessary to allow the operational Services to commence has been provided and installed. This includes both internal and external signage for the Facilities and areas outwith the red line boundary to include the access routes and buildings on the wider Retained Site;

2.1.15 Those elements of the fire management strategy and fire safety risk assessment in accordance with the Fire (Scotland) Act 2005, for which Project Co is responsible, have been produced;

2.1.16 All fire detection, alarm and suppression systems including the interconnection with the existing RIE Facilities are complete, tested commissioned and operational;

2.1.17 All external lighting is installed, tested, commissioned and operational;

2.1.18 All IT, communication and security systems to be installed by Project Co including the interconnection with the existing RIE Facilities, are complete, tested and test results submitted to the Board (and if appropriate commissioned);

2.1.19 All security and surveillance systems, access controls and call alarms are complete, tested, commissioned, operational and available for use by the Board;

2.1.20 All acoustic testing has been completed to prove compliance with Section 3 *(Board's Construction Requirements)* of Schedule Part 6 *(Construction Matters)* and Section 4 *(Project Co's Proposals)* of Schedule Part 6 *(Construction Matters);*

2.1.21 All medical gas and vacuum system's are complete, tested, commissioned and witnessed by the Board's chief pharmacist and medical gases approved person;

2.1.22 All pneumatic tube systems including the elements within the RIE Facilities are complete, tested, commissioned, operational and available for use by the Board;

2.1.23 Project Co has provided all documentation to the Independent Tester in accordance with this Agreement and paragraph 4 *(Indicative Testing and Commissioning Documentation)* below;

2.1.24 A final draft Operational Manual for the Facilities, in accordance with Clause 18.5 *(Operational Manuals)* of this Agreement, (containing, as a minimum, all the testing and commissioning information including as-built drawings / test results so far as it is reasonably practicable) have been made available by the Contractor to Project Co to allow the Facilities to be operated safely;

2.1.25 All tests undertaken in accordance with Section 7 *(Thermal & Energy Efficiency Testing Procedures)* of Schedule Part 6 *(Construction Matters);*

2.1.26 All elements of the Handover Clean, set out in paragraph 3 *(Handover Clean)* below are complete;

2.1.27 Testing and commissioning of all access systems;

2.1.28 Project Co shall ensure the following finishing Works are completed;

(a) Removal of Site establishment;

(b) Cap off and completely remove temporary site services and record position;

(c) Removal of temporary materials, including surfacing, complete with full reinstatement; and

2.1.29 Project Co shall reinstate any damage to Car Park E and/or the relevant part and/or any service media, buildings, structures and others erected thereon and any plant, machinery and equipment at Car Park E to the satisfaction of the Board in accordance with paragraph 3 of Part 3 *(General Matters)* and shall comply with the requirements in paragraphs 3 and 4 of Section 3 *(General Matters*) of Appendix A of the Board's Construction Requirements.

3. HANDOVER CLEAN

On completion of the Works, Project Co shall remove builders debris, and clean all areas of the Facilities including plant rooms, to the standard defined below:

3.1 Floors

3.1.1 The floor is cleaned to remove paint, plaster, grit and litter, water and other liquids;

3.1.2 The floor is cleaned to remove stains, spots and scuffs;

3.1.3 Inaccessible areas (edges and corners) cleaned to remove grit and lint;

3.1.4 All carpets, vinyl's and the like floor coverings are clean and vacuumed;

3.1.5 Barrier matting zones are vacuumed and wells free of debris;

3.1.6 Toilets, Sinks, Basins, Baths, Taps and Fixtures free of all labels, tape and sticky marks to be removed;

3.1.7 Porcelain, cubicle rails and plastic surfaces are wiped clean;

3.1.8 Metal surfaces, shower screens and mirrors are wiped clean;

3.1.9 Wall tiles and wall fixtures (including dispensers, toilet holders, paper dispensers, grab rails and the like) wiped clean to remove grit;

3.1.10 Inaccessible areas (edges, corners, folds and crevices) are cleaned to remove grit and lint;

3.1.11 All pieces of fixed furniture, equipment and appliances free of all labels, tape and sticky marks and litter, cleaned inside and out;

3.1.12 All high surfaces are wiped clean;

3.1.13 Blinds, curtains, screens including hanging rails, hooks and fixings cleaned to remove all dust and wiped clean;

3.1.14 Shelves, bench tops, cupboards and wardrobes are wiped clean inside and out and are free of litter;

3.1.15 Protective film is removed from all hard surfaces and equipment unless otherwise requested by the Service Provider.

3.2 Low Level Surfaces

3.2.1 Internal walls cleaned to remove paint splashes, grit, soil and graffiti;

3.2.2 Skirtings, covings and the like are cleaned to remove paint or plaster splashes;

3.2.3 Light switches and electrical sockets are wiped clean; and

3.3.4 All windows (glass internal and external), ironmongery, vents window frames and sills are cleaned.

3.3 High Level Surfaces

3.3.1 Walls and ceilings are cleaned to remove plaster splashes, paint splashes, grit, soil, film and graffiti;

3.3.2 Ceilings and light fittings and are cleaned to remove surface markings, dust and dirt;

3.3.3 Doors and doorframes are cleaned to remove grit, soil, and film;

3.3.4 Air vents, grilles and other ventilation outlets are unblocked and cleaned to remove grit, soil, scuffs and other marks; and

3.3.5 Door tracks and door jambs are cleaned to remove grit and other debris.

4. INDICATIVE TESTING AND COMMISSIONING DOCUMENTATION

4.1 Documentation

The following list is indicative of the test documentation expected to be provided

4.1.1 Building warrant completion certificates;

4.1.2 Evidence that all conditions for which Project Co is responsible attached to the detailed Planning Approval have been discharged to the satisfaction of the relevant local authority;

4.1.3 All road construction consent remedial works identified by the relevant local authority should be undertaken prior to the Actual Completion Date, final road construction consent certificate from the relevant local authority should be issued within one (1) month of the Certificate of Practical Completion;

4.1.4 Flushing cleaning and chlorination test certificates;

4.1.5 Boiler Plant manufacturers factory test and commissioning sheets in accordance with CIBSE Commissioning Code B, including all steam systems;

4.1.6 Ductwork systems pressure test and volume flow rate certificates if appropriate;

4.1.7 Kitchen equipment commissioning certificate if appropriate;

4.1.8 Electrical installation completion and inspection certificates in accordance with (BS 7671 and NICEIC requirements);

4.1.9 Lighting and power certificate of test;

4.1.10 Fire and intruder alarms commissioning certificates, including intruder detection and alarm, access control system(s);

4.1.11 General electrical earth loop and insulation resistance test sheets;

4.1.12 Testing of all hot water service thermostatic mixing valves ("TMV's") in accordance with BS6700 and tests to comply with HSE Document L8 and HGN 'Safe Hot Water and Surface Temperatures;

4.1.13 Emergency lighting completion and test certificates;

3.1.14 Security systems commissioning certificates;

4.1.15 Certificate of soundness testing of gas installation;

4.1.16 Gas pipework pressure test and purge certificates;

4.1.17 Fire suppression system certificates (in accordance with BS6266 and tests to comply with CIBSE Guidance E;

4.1.18 Fire alarm sound record sheets;

4.1.19 Lighting calculation sheets and lux level test results;

4.1.20 Machine (generator/ups etc) specialist commissioning and factory test sheets;

4.1.21 Acoustic test sheets (in accordance with BS EN ISO 717 – 1: 1997);

4.1.22 Lift Commissioning in accordance with BS EN 81;

4.1.23 Lightning protection risk analysis and test/commissioning sheets in accordance with BS EN 62305 (2008);

4.1.24 Works pressure test certificates for all pressure vessels;

4.1.25 Mechanical pipework systems pressure tests;

4.1.26 A/C Equipment performance tests;

4.1.27 Condensate clearance tests for A/C Equipment;

4.1.28 BMS/EMS tests/commissioning records in accordance with CIBSE Commissioning Code C;

4.1.29 Air distribution systems in accordance with CIBSE Commissioning Code A;

4.1.30 Water systems (heating and domestic water) in accordance with CIBSE Commissioning Code W and SHTM 04-01;

4.1.31 Legionella testing (to include an organic check on the incoming mains) within tolerances given in HSE ACOP test sheets;

4.1.32 Domestic water systems bacteriological quality test sheets;

4.1.33 All medical gas and medical and dental vacuum systems test and commissioning certificates as witnessed by the Board's chief pharmacist and medical gases approved person in accordance with SHTM 2022: Medical gas pipeline systems, Vol 1 - Design, installation, validation and verification;

4.1.34 Anaesthetic gas scavenging system test and commissioning certificates in accordance with SHTM 2022: Medical gas pipeline systems, Vol 1 - Design, installation, validation and verification;

4.1.35 Plant (Calorific, Treatment etc.) specialist commissioning and factory test sheets, if applicable;

4.1.36 Nurse call test certificate;

4.1.37 Disabled Toilet Alarm test certificate;

4.1.38 Fire Alarm Test Certificate;

4.1.39 CCTV and access control test certificate;

4.1.40 Telephone and data structured cable scheme test certificate, test results and copy of manufacturers warranty;

4.1.41 Pneumatic tube system test certificate;

4.1.42 Induction loop test certificate;

4.1.43 Pipeline Pressure and flow rate test certificates including drainage and all steam systems;

4.1.44 Steam boiler/generator test factory test and commissioning certificates in accordance with CIBSE Commissioning Code B;

4.1.45 Chiller factory test and commissioning certificates in accordance with CIBSE Commissioning Code R;

4.1.46 Chemical clean and inhibitor dosing certification to heating/chilled water systems;

4.1.47 Ductwork physical cleaning certification in accordance with SHTM 03-01 and the HVCA (2005) 'TR/19 – Guide to good practice;

4.1.48 Proving of isolation rooms differential pressure;

4.1.49 Air tests and test records for the Facilities drains and drainage network;

4.1.50 Test certificates and sufficient written evidence covering the design, construction and repair etc for all protective devices such as pressure relief valves and the like. Specific reference is made to compliance with Regulation 5 of The Pressure Systems Safety Regulations 2000;

4.1.51 The Board hardware installed, commissioned and tested (network, servers and workstations in clinical and non-clinical areas); and

4.1.52 Patient and equipment tagging system.

SCHEDULE PART 11

EQUIPMENT

1 GROUP 1 EQUIPMENT[46]

1.1 Project Co shall at its own cost procure, install and commission the Group 1 Equipment at the Facilities as part of the Works in accordance with the Board's Construction Requirements, the Final Commissioning Programme and Project Co's Proposals.

1.2 Project Co shall at its own cost repair, maintain and replace the Group 1 Equipment in accordance with the Service Level Specification and the Method Statements.

2 GROUP 2A EQUIPMENT

2.1 The Board shall at its own cost:

2.1.1 procure and make available to Project Co the Group 2A Equipment for installation by Project Co at the Facilities in accordance with the Final Commissioning Programme; and

2.1.2 without prejudice to paragraph 2.1.1, ensure that the relevant items are delivered to the Facilities during the relevant periods set out in the Final Commissioning Programme and in accordance with paragraph 2.6.

2.2 Project Co shall install the Group 2A Equipment at the Facilities in accordance with the Final Commissioning Programme, the Board's Construction Requirements and Project Co's Proposals.

2.3 The Board shall be responsible for the maintenance, replacement and disposal of the Group 2A Equipment and Project Co shall have no responsibility to maintain or replace or dispose of the Group 2A Equipment save for the installation of lifecycle replacements.

2.4 Project Co shall give the Board not less than twenty five (25) Business Days prior written notice of the date upon which Project Co requires the Board to procure the delivery of Equipment to be installed and commissioned by Project Co in accordance with paragraph 2.2.

2.5 Each notice given pursuant to paragraph 2.4 shall specify;

2.5.1 the item or items of Group 2A Equipment be delivered by the Board;

2.5.2 the location on the Site to which that Group 2A Equipment is to be delivered by the Board; and

[46] Project Co shall will generally be responsible for all Group 1 Equipment including specification, procurement, installation, maintenance and lifecycle replacement, however, the Board will specify the details (both quantities and specification) for certain key items which are more clinical in nature (e.g. pendants in Theatres & Critical Care) that will be identified in the Equipment Schedule. To be discussed with Bidders during the Dialogue Period.

2.5.3 the date upon which Project Co requires the Board to deliver the relevant item or items of Group 2A Equipment.

2.6 Without prejudice to paragraph 2.1, the Board shall deliver, or shall procure delivery of the relevant item or items of and/or pertaining to the Group 2A Equipment on the date specified in the relevant notice issued by Project Co pursuant to paragraph 2.4 to such location as set out in paragraph 2.5.2 (which for the avoidance of doubt, must be safely accessible by those persons delivering the relevant item or items of Equipment).

2.7 Following delivery of the Group 2A Equipment pursuant to paragraph 2.6, Project Co shall procure the safe and appropriate storage of the same until the completion of installation of the Group 2A Equipment by Project Co.

2.8 If at the time of installing or commissioning the Group 2A Equipment, such Group 2A Equipment is found to be damaged, does not properly function or otherwise does not correspond with the items to be procured by the Board pursuant to paragraph 2.1 to allow successful completion of commissioning to occur, then the Board shall procure the repair or replacement of such Group 2A Equipment as soon as reasonably practicable, having regard to the length of time generally taken to procure such Group 2A Equipment or procure repairs to such Group 2A Equipment provided that, to avoid doubt, where such Group 2A Equipment is damaged or does not function properly to allow commissioning to occur due to the acts or omissions of Project Co or any Project Co Party, then Project Co shall reimburse the Board for any costs reasonably and properly incurred by the Board in procuring the repair of a replacement item of Group 2A Equipment within twenty (20) Business Days of receipt of a demand thereof together with supporting information.

3 GROUP 2B EQUIPMENT

3.1 The Board shall at its own cost:

3.1.1 procure the Group 2B Equipment for installation by its own contractors at the Facilities in accordance with the Final Commissioning Programme; and

3.1.2 without prejudice to paragraph 3.1.1, ensure that the Group 2B Equipment is delivered to and installed at the Facilities during the relevant periods set out in the Final Commissioning Programme in accordance with paragraph 3.6.

3.2 The Board shall procure the installation of the Group 2B Equipment at the Facilities in accordance with the Final Commissioning Programme, the Board's Construction Requirements and Project Co's Proposals.

3.3 The Board shall be responsible for the maintenance, replacement and disposal of the Group 2B Equipment and Project Co shall have no responsibility to maintain or replace or dispose of the Group 2B Equipment.

3.4 Project Co shall give the Board not less than twenty five (25) Business Days prior written notice of the date upon which Project Co requires the Board to procure the delivery and installation of the Group 2B Equipment by the Board and its contractors in accordance with paragraph 3.2.

3.5 Each notice given pursuant to paragraph 3.4 shall specify;

3.5.1 the item or items of Group 2B Equipment be delivered and installed by the Board;

3.5.2 the location on the Site to which that Group 2B Equipment is to be delivered and installed by the Board; and

3.5.3 the date upon which Project Co requires the Board to deliver and install the relevant item or items of Group 2B Equipment.

3.6 Without prejudice to paragraph 3.1, the Board shall deliver, or shall procure delivery of the relevant item or items of and/or pertaining to the Group 2B Equipment on the date specified in the relevant notice issued by Project Co pursuant to paragraph 3.4 to such location as set out in paragraph 3.5.2 (which for the avoidance of doubt, must be safely accessible by those persons delivering the relevant item or items of Equipment).

3.7 Following delivery of the Group 2B Equipment pursuant to paragraph 3.6, Project Co shall procure the safe and appropriate storage of the same until the completion of installation by or procured by the Board.

3.8 If at the time of installing or commissioning the Group 2B Equipment, such Group 2B Equipment is found to be damaged, does not properly function or otherwise does not correspond with the items to be procured by the Board pursuant to paragraph 3.1 to allow successful completion of commissioning to occur, then the Board shall procure the repair or replacement of such Group 2B Equipment as soon as reasonably practicable, having regard to the length of time generally taken to procure such Group 2B Equipment or procure repairs to such Group 2B Equipment provided that, to avoid doubt, where such Group 2B Equipment Is damaged or does not function properly to allow commissioning to occur due to the acts or omissions of Project Co or any Project Co Party, then Project Co shall reimburse the Board for any costs reasonably and properly incurred by the Board in procuring the repair of a replacement item of Group 2B Equipment within twenty (20) Business Days of receipt of a demand thereof together with supporting information.

4 GROUP 3 EQUIPMENT

4.1 Without prejudice to paragraph 1, the Board shall at its own cost procure, install and commission the Group 3 Equipment at the Facilities as part of the Board's Post Completion Commissioning.

4.2 The Board shall be responsible for the maintenance, replacement and disposal of the Group 3 Equipment and Project Co shall have no responsibility to maintain or replace or dispose of the Group 3 Equipment. If such Group 3 Equipment is damaged or does not function properly to allow commissioning to occur due to the acts or omissions of Project Co or any Project Co Party, then Project Co shall reimburse the Board for any costs reasonably and properly incurred by the Board in procuring the repair of a replacement item of Group 3 Equipment within twenty (20) Business Days of receipt of a demand thereof together with supporting information.

5 GENERAL

5.1 Each Party shall at its own expense perform its obligations described in this Schedule Part 11 *(Equipment).*

Appendix 1: Equipment Schedule

[Equipment Schedule to be inserted in here]

Appendix 2: Equipment Responsibilities Matrix

[Equipment Responsibilities Matrix to be inserted in here]

SCHEDULE PART 12

SERVICE REQUIREMENTS

SECTION 1

SERVICE LEVEL SPECIFICATION

SECTION 2

METHOD STATEMENTS

SECTION 3

SERVICES QUALITY PLAN

SCHEDULE PART 13

INDEPENDENT TESTER CONTRACT

AGREEMENT

AMONG:

(1) **LOTHIAN HEALTH BOARD**, a health board constituted in Scotland under the National Health Service (Constitution of Health Boards) (Scotland) Order 1974 (S.I. 1974/267) as amended by the National Health Service (Constitution of Health Boards) (Scotland) Amendment Order 2003 (S.S.I. 2003/217) pursuant to Section 2 of the National Health Service (Scotland) Act 1978 as amended by section 28 of the National Health Service and Community Care Act 1990 and having its principal address at Waverley Gate, 2-4 Waterloo Place, Edinburgh EH1 3EG (together with its successors, assignees and/or transferees is referred to as the **"Board"**);

(2) [PROJECT CO] ("**Project Co**");

(3) [INDEPENDENT TESTER] (the "**Independent Tester**");

(4) [FUNDER] (the "**Funder**" being one of the Funders); and

(5) [CONTRACTOR] (the "**Contractor**"); and

WHEREAS:

(A) Project Co and the Board have entered into an agreement for the financing, design and construction of and the provision of certain services in connection with a project to re-provide services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France at the Site and Off-Site (the "**Project**") pursuant to the Government's private finance initiative (the "Design Build Finance and Maintain Agreement") under the terms of which they have jointly agreed to appoint an independent tester.

(B) Project Co has entered into the Construction Contract with the Contractor for the development of the Project at the Site and Off-Site.

(C) Project Co has entered into the Funding Agreements with the Funders.

(D) The Independent Tester is an independent adviser willing to provide services to Project Co and the Board and for the benefit of the Funders.

(E) Project Co and the Board have jointly agreed to engage the Independent Tester to carry out the duties and obligations ascribed to the Independent Tester in the Design Build Finance and Maintain Agreement upon the terms of this Agreement.

IT IS AGREED as follows:

1 **INTERPRETATION**

1.1 Unless the context otherwise requires, words and expressions defined in the Design Build Finance and Maintain Agreement have the same meanings in this Agreement as in the Design Build Finance and Maintain Agreement.

1.2 The headings in this Agreement do not affect its interpretation.

Unless the context otherwise requires, all references to Clauses and Appendices are references to clauses of and appendices to this Agreement.

2 APPOINTMENT

2.1 Project Co and the Board jointly appoint the Independent Tester to perform the services obligations and tasks which are ascribed to the Independent Tester under the Design Build Finance and Maintain Agreement and which are set out in Appendix 1 upon the terms and conditions set out below. The Contractor is a party to this Agreement solely to make the commitments on its part as expressly made in this Agreement and, for the avoidance of doubt, the Independent Tester shall have no liability to the Contractor.

2.2 The Independent Tester shall provide the services, obligation and tasks under Clause 2.1 above (the "Services") independently, fairly and impartially to and as between Project Co and the Board in relation to the Design Build Finance and Maintain Agreement at such times and at such locations as the parties shall agree from time to time. In performing the Services, the Independent Tester shall have regard to the interest of the Funders. Whilst the Independent Tester shall take account of any representations made by Project Co and the Board and the Contractor (as appropriate) the Independent Tester shall not be bound to comply with any representations made by any of them in connection with any matter on which the Independent Tester is required to exercise his professional judgement.

3 VARIED SERVICES

3.1 The Independent Tester shall carry out and perform any additional and/or varied services required for the implementation of the Project reasonably required by the Board and Project Co which are not included in, or which are omitted from, the Services (the **"Varied Services"**), subject to prior agreement by the Board and Project Co to the costs thereof. The written agreement by the Board and Project Co pursuant to this Clause 3.1 shall state whether (and where applicable in what proportions) the Board and/or Project Co will be responsible for the payment of the fee agreed for the Varied Services. The Independent Tester acknowledges that the liability of Project Co and the Board to pay the Independent Tester for the Varied Services shall be several and not joint.

3.2 If the Independent Tester shall at any time be required to perform Varied Services, it shall give to the Board and Project Co a written estimate of the cost thereof (taking into account any reduction in work or other expense which might also occur as a result of the circumstances giving rise to the Varied Services).

3.3 Where a change to the Project occurs pursuant to the terms of the Design Build Finance and Maintain Agreement (whether by virtue of a Delay Event, Change, change to the Programme or otherwise) which may materially impact on the Services or otherwise on the Independent Tester, the Board and Project Co shall promptly notify the Independent Tester of such change. The Independent Tester shall within five (5) Business Days of receiving such notification, notify the Board and Project Co of the impact of such change, if any, on the Services, including whether such change

gives rise to any Varied Services and the provisions of this Clause 3.3 shall apply accordingly.

3.4 The Independent Tester shall promptly and efficiently provide the Services and the Varied Services:

3.4.1 with the reasonable care, skill and diligence to be expected of a properly qualified and competent professional adviser who has held itself out as competent and experienced in rendering such services for projects of a similar size, nature, scope and complexity to the Project; and

3.4.2 in accordance with all applicable Law and NHS Requirements.

3.5 All instructions to the Independent Tester must be given signed and given jointly by the Board's Representative and Project Co's Representative or such other person appointed pursuant to Clause 12 of the Design Build Finance and Maintain Agreement (*Representatives*) and, for the avoidance of doubt, the Independent Tester shall not act in accordance with any instructions given to him by either the Board or Project Co (or any other person) not given in accordance with the provisions of this Clause 3.5.

3.6 The Independent Tester shall comply with all reasonable instructions given to it by Project Co and the Board pursuant to Clause 3.5 except and to the extent that the Independent Tester reasonably considers that any such instructions vary or might vary the Services or its authority or responsibilities under this Agreement or prejudices or might prejudice the exercise by the Independent Tester of its professional judgement in accordance with Clauses 2.2 and 3.4 above. The Independent Tester shall promptly confirm in writing to Project Co and the Board whether or not it shall comply with any such instruction setting out the grounds upon which the decision is made.

3.7 The Board, Project Co and the Contractor agree to co-operate with and provide reasonable assistance to the Independent Tester to familiarise the Independent Tester with all necessary aspects of the Project to enable the Independent Tester to carry out its obligations under this Agreement.

3.8 The Independent Tester shall be deemed to have full knowledge of the provisions of the Design Build Finance and Maintain Agreement, the Construction Contract, the Service Contracts, the Funding Agreements and the [Sub-Contractor Co-operation Agreement (as defined in the Construction Contract)] such as relates to the Services and shall be deemed to be aware of and to have taken full account of all the undertakings and warranties, both expressed and implied, on the part of Project Co and the Board which are set out in the Design Build Finance and Maintain Agreement provided always that true and accurate copies have been delivered to the Independent Tester.

3.9 Subject to Clause 3.10, the Independent Tester shall use the following partners, directors or employees: [insert names of individuals] in connection with the performance of the Services and such persons' services shall be available when necessary and for so long as may be necessary to ensure the proper performance by the Independent Tester of the Services. Such persons shall have full authority to act

on behalf of the Independent Tester for all purposes in connection with the Services.

3.10 The Independent Tester may by written notice to the Board and Project Co replace the staff identified in Clause 3.9 taking into account the need for liaison, continuity, level of qualification and availability of personnel in respect of the Project. Such replacement shall be subject to approval in writing by Project Co and the Board (not to be unreasonably withheld or delayed).

4 DURATION

4.1 The Services shall commence on the last date of execution of the Design Build, Finance and Maintain Agreement

4.2 The parties hereby agree that this Agreement governs all of the Services (including the Varied Services, if any) provided by the Independent Tester in relation to the Project whether before or after the date hereof.

5 FEE

5.1 Project Co shall pay to the Independent Tester a fee of [INSERT FEE] for the Services provided under this Agreement. The fee is exclusive of value added tax and inclusive of disbursements. The Independent Tester shall issue an invoice to Project Co on a monthly basis in accordance with Appendix 2 Section 1 (*Schedule of Drawdown of Fees*) (the **"Application for Payment"**). 5 days after the date on which the invoice is received by Project Co shall constitute the due date (the **"Due Date"**). The final date for payment by Project Co shall be thirty (30) days after receipt of the Independent Tester's invoice (the **"Final Date"**). If Varied Services are provided then they shall be paid for in accordance with the agreement between the Independent Tester and the Board and Project Co pursuant to Clause 3.1.

5.2 Not later than 5 days after the Due Date ascertained in accordance with Clause 5.1, Project Co shall give written notice to the Independent Tester stating the amount which Project Co considers to be or have been due at the Due Date and the basis on which the amount is calculated (the **"Payment Notice"**). It is immaterial that the sum referred to in this notice may be zero. If Project Co fails to give a Payment Notice in accordance with this Clause 5.2 and the Independent Tester has given an Application for Payment in accordance with Clause 5.1, subject to any Pay Less Notice given under Clause 5.3, the sum to be paid to the Independent Tester shall be the sum specified in the Application for Payment.

5.3 Where Project Co intends to pay less than the sum stated as due pursuant to this Agreement, Project Co shall, not later than 2 days before the relevant Final Date, give a written notice to the Independent Tester (a **"Pay Less Notice"**). Such Pay Less Notice shall specify both the sum that Project Co considers to be due to the Independent Tester at the date the notice is given and the basis on which that sum is calculated. It is immaterial that the sum referred to in this Clause 5.3 may be zero. Where any Pay Less Notice is given, the payment to be made on or before the relevant Final Date shall be not less than the amount stated as due in such notice.

5.4 If Project Co fails to pay a sum, or any part of it, properly due to the Independent

Tester under this Agreement by the relevant Final Date, Project Co shall, in addition to any unpaid amount that should properly have been paid, pay the Independent Tester simple interest on that amount from the Final Date until the actual date of payment at the [Default Interest Rate].

5.5 If Project Co fails to pay any amount properly due pursuant to this Agreement by the relevant Final Date and the failure continues for 21 days after the Independent Tester has given notice to Project Co of its intention to suspend performance of all or any of the Services and the ground or grounds on which it is intended to suspend performance, the Independent Tester may suspend performance of any or all of its obligations until payment of the amount properly due is made in full. Any period of suspension of the Services in accordance with this Clause 5.5 shall be disregarded in computing any contractual time limit to complete work directly or indirectly affected by the exercise of the rights conferred by this Clause 5.5 or as the case may be, the time for completion of such work shall be extended by a period equal to the period of suspension.

Where the Independent Tester exercises its right of suspension under this Clause 5.5, it shall be entitled to a reasonable amount in respect of costs and expenses reasonably incurred by it as a result of the exercise of that right. Any such costs and expenses shall be included in the Independent Tester's next Application for Payment and the Independent Tester shall, with its application, submit such details of the costs and expenses as are reasonably necessary to enable the Independent Tester's entitlement to be ascertained.

5.6 Without prejudice to Clause 3.5, neither the Board nor Project Co shall issue instructions or do anything which does or is reasonably likely materially to increase the fees payable to the Independent Tester without the prior approval of the other (such approval not to be unreasonably withheld or delayed).

5.7 As soon as the Independent Tester becomes aware of the same and before acting on the same the Independent Tester shall inform the Board and Project Co of any instructions given to him pursuant to Clause 3.5 which will or could reasonably be expected to increase the fees payable to the Independent Tester under the terms of this Agreement. The Independent Tester shall if requested by either Project Co or the Board provide both the Board and Project Co with as detailed an estimate as is reasonably practicable of the increase to the fees payable to it if it carries out such instructions. The estimate of increased fees shall be based upon the rates contained in Appendix 2, Section 2 (*Schedule of Daily Rates*).

6 LIMITATIONS ON AUTHORITY

6.1 The Independent Tester shall not:

6.1.1 make or purport to make any alteration or addition to or omission from the design of the Facilities and/or the Retained Estate Handback Infrastructure, (including, without limitation, the setting of performance standards) or issue any instruction or direction to any contractor or professional consultant employed or engaged in connection with the Project; or

6.1.2 (unless both Project Co and the Board consent in writing) consent or agree

to any waiver or release of any obligation of Project Co or the Board under the Design Build Finance and Maintain Agreement or of any contractor or professional consultant employed or engaged in connection with the Project.

6.2 For the avoidance of doubt, the Independent Tester shall not express an opinion on and shall not interfere with or give any advice, opinion or make any representation in relation to any matters which are beyond its role and responsibilities under this Agreement.

7 TERMINATION

7.1 Project Co and the Board may by joint notice in writing (a "**Joint Notice**") immediately terminate this Agreement if the Independent Tester:

7.1.1 is in breach of any of the terms of this Agreement which, in the case of a breach capable of remedy, shall not have been remedied by the Independent Tester within 21 days of receipt by the Independent Tester of a Joint Notice specifying the breach and requiring its remedy;

7.1.2 is incompetent, guilty of gross misconduct and/or any material failure, negligence or delay in the provision of the Services and/or its other duties under this Agreement;

7.1.3 fails or refuses after written warning to provide the Services and/or its other duties under this Agreement reasonably and as properly required of him; or

7.1.4 is subject to an event analogous to any of the events set out in Clause 40.1.1 (*Insolvency*) of the Design Build Finance and Maintain Agreement.

7.2 If the Design Build Finance and Maintain Agreement is rescinded, terminated or repudiated for any reason and, notwithstanding that the validity of such rescission, termination or repudiation may be disputed, this Agreement may be terminated by Joint Notice and with immediate effect.

7.3 Following any termination of this Agreement, but subject to any set-off or deductions which Project Co or the Board may be entitled properly to make as a result of any breach of this Agreement by the Independent Tester, the Independent Tester shall be entitled to be paid in full and final settlement of any valid claim which the Independent Tester may have in consequence thereof, any fees due under Clause 5 (*Fee*) above in respect of the Services carried out in accordance with this Agreement prior to the date of termination.

7.4 Termination of this Agreement shall be without prejudice to any accrued rights and obligations under this Agreement as at the date of termination (including the right of Project Co and the Board to recover damages from the Independent Tester).

7.5 If this Agreement is terminated in accordance with Clause 7.1, Project Co and the Board shall use reasonable endeavours to engage an alternative Independent Tester

within 30 days, subject to Law and public procurement rules. If within such period Project Co and the Board are unable to procure the appointment of an alternative Independent Tester on reasonable commercial terms, the Independent Tester shall pay to Project Co and/or the Board, as the case may be, any reasonable incremental loss, damage or extra costs suffered by each of them.

7.6 If Project Co fails to make a payment of any undisputed sum to the Independent Tester within twenty (20) Business Days of the expiry of any notice issued pursuant to Clause 5.5. in respect of such sum, the Independent Tester may issue a further written notice to the Board and Project Co specifying that the payment remains outstanding (the "Second Notice") and if payment is not made within fifteen (15) Business Days of receipt of the Second Notice the Independent Tester may issue a further written notice terminating this Agreement with immediate effect. Failure by Project Co to pay, following receipt of a Second Notice pursuant to this Clause 7.6, shall be the Independent Tester's sole ground for terminating this Agreement by reason of breach of this Agreement by the Board and/or Project Co.

7.7 Termination of this Agreement shall not affect the continuing rights and obligations of Project Co, the Board and the Independent Tester under Clauses 6 (*Limitations on Board*), 8 (*Confidential Information and Copyright*), 9 (*Professional Indemnity Insurance*), 18 (*Dispute Resolution Procedure*) and this Clause or under any other Clause which is expressed to survive termination or which is required to give effect to such termination or the consequences of such termination.

8 CONFIDENTIAL INFORMATION AND COPYRIGHT

8.1 The Independent Tester shall treat as secret and confidential and shall not at any time for any reason disclose or permit to be disclosed to any person or otherwise make use of or permit to be made use of any unpublished information relating to Project Co's or the Board's or the Contractor's (if appropriate) technology or other know-how business plans or finances or any such information relating to a subsidiary, supplier, customer or client of Project Co or the Board or the Contractor (if appropriate) where the information was received during the period of this Agreement except as may be reasonably necessary in the performance of the Services. Upon termination of this Agreement for whatever reasons the Independent Tester shall offer to deliver up to Project Co or the Board (as appropriate) all working papers, computer disks and tapes or other material and copies provided to or prepared by him pursuant either to this Agreement or to any previous obligation owed to Project Co or the Board provided always that the Independent Tester shall be entitled to retain copies of all such items where such offer is accepted.

8.2 The obligation to maintain confidentiality does not apply to any information or material to the extent that the Independent Tester is compelled to disclose any such information or material by law or any regulatory or Government authority.

8.3 The copyright in all reports, and other documents produced by the Independent Tester in connection with the Project shall remain vested in the Independent Tester but the Independent Tester grants to Project Co and Board and their nominees with full title guarantee a non-exclusive irrevocable royalty free licence to copy and use such reports, and other documents and to reproduce the information contained in them for any purpose related to the Project including (but without limitation) the construction, completion, maintenance, letting, promotion, advertisement, reinstatement, extension and repair of the Project. Such licence shall include a licence to grant sub-licences and to transfer the same to third parties.

8.4 The Independent Tester shall not be liable for use by any person of the documents, (including reports, details, plans, specifications, schedules, computer programs, software, consents and any other papers, works, reports and inventions produced by the Independent Tester) for any purpose other than that for which the same were prepared by or on behalf of the Independent Tester.

9 PROFESSIONAL INDEMNITY INSURANCE

9.1 Without prejudice to its obligations under this Agreement, or otherwise at law, the Independent Tester shall maintain professional indemnity insurance with a limit of indemnity of not less than [ten million pounds (£10,000,000)] for any one claim in respect of any neglect, error or omission on the Independent Tester's part in the performance of its obligations under this Agreement for the period commencing on the date of this Agreement and expiring 12 years after:

9.1.1 the date of final certification of the Works; or

9.1.2 the termination of this Agreement,

whichever is the earlier, provided that such insurance is available in the market place at commercially reasonable rates.

9.2 The Independent Tester shall maintain such insurance with reputable insurers carrying on business in the United Kingdom.

9.3 Any increased or additional premium required by insurers by reason of the Independent Tester's own claims record or other acts, omissions, matters or things particular to the Independent Tester shall be deemed to be within commercially reasonable rates.

9.4 The Independent Tester shall as soon as reasonably practicable inform Project Co and the Board if such insurance ceases to be available at commercially reasonable rates in order that the Independent Tester and Project Co and the Board can discuss means of best protecting the respective positions of Project Co and the Board and the Independent Tester in respect of the Project in the absence of such insurance.

9.5 The Independent Tester shall fully co-operate with any measures reasonably required by Project Co and the Board including (without limitation) completing any proposals for insurance and associated documents, maintaining such insurance at rates above commercially reasonable rates if Project Co and the Board undertake in writing to reimburse the Independent Tester in respect of the net cost of such insurance to the Independent Tester above commercially reasonable rates.

9.6 The Independent Tester shall, prior to commencing the provision of the Services and as soon as reasonably practicable following renewal dates, produce for inspection by Project Co and the Board documentary evidence that such insurance is being properly maintained.

9.7 The above obligations in respect of professional indemnity insurance shall continue notwithstanding termination of this Agreement for any reason whatsoever, including (without limitation) breach by Project Co and the Board.

10 LIMITATION OF LIABILITY

10.1 With the exception of liability for death, personal injury and/or any other liability that cannot lawfully be excluded or limited, the Independent Tester's maximum aggregate liability to all parties, under or in connection with this Agreement, whether in contract or in delict, or for breach of statutory duty is limited to [ten million (£[10,000,000]).

10.2 [Notwithstanding anything to the contrary stated elsewhere in this Agreement, the parties hereby expressly agree that the Independent Tester shall have no liability to any party under or in connection with this Agreement for any claim or claims related to terrorism, asbestos or toxic mould.][47]

10.3 No action or proceedings under or in connection with this Agreement shall be commenced against the Independent Tester after the expiry of twelve years from the earlier of: (a) the completion of the Services; and (b) the termination of this Agreement.

11 SUB-CONTRACTOR LOSSES AND NO LOSS AVOIDANCE

11.1 Without prejudice to Clause 10 (*Limitation of Liability*) the Independent Tester hereby acknowledges and accepts (a) that a breach or failure on the part of the Independent Tester could have adverse financial consequences for the Sub-Contractors (or any of them) and (b) any losses, damages, costs and/or other liabilities suffered or incurred by the Sub-Contractors (or any of them) (as the case may be) arising from or in connection with any breach or failure on the part of the Independent Tester under this Agreement shall, for the purposes of this Agreement and notwithstanding the provisions of any Sub-Contract, be deemed to be losses, damages, costs and/or liabilities suffered or incurred by Project Co arising from or in connection with such breach or failure.

11.2 Where the Independent Tester would otherwise be liable to make a payment by way of compensation to Project Co including amounts which, in turn, comprise compensation to any Sub-Contractor which is payable by Project Co and/or which would be payable by way of compensation to any Sub-Contractor by Project Co the Independent Tester shall not be entitled to withhold, reduce or avoid any such payment to Project Co in reliance (in whole or in part) on the fact that payment of the amount which is or would be due from Project Co to the Sub-Contractor or the entitlement of the Sub-Contractor to receive payment of such amount (as a result of the circumstances giving rise to the Independent Tester's obligation to pay such compensation) is conditional on receipt by Project Co of such amount from the Independent Tester.

12 NOTICES

[47] This may be appropriate where the IT's insurance cover excludes liability for these occurrences. Authorities to check.

All notices or other communications required in connection with this Agreement shall be in writing and sent by hand, by first class pre-paid post or by facsimile transmission to the relevant address or facsimile number set out in the Design Build Finance and Maintain Agreement or in the case of the Independent Tester to its registered office for the attention of the company secretary or to such other address or facsimile number as a party to this Agreement may notify to another party to this Agreement in writing.

13 ASSIGNATION

13.1 The Independent Tester shall not assign or transfer any of its rights or obligations under this Agreement or sub-contract the whole or any part of the Services.

13.2 Neither Project Co nor the Board shall be entitled to assign or transfer any of their respective rights or obligations under this Agreement save that the parties hereby consent to any such assignment or transfer which is contemporaneous to the assignment or transfer of the Design Build Finance and Maintain Agreement and is made to the same assignee or transferee. In the event that the Design Build Finance and Maintain Agreement is novated to a third party, the term "Design Build Finance and Maintain Agreement" shall include any replacement contract arising from such novation.

13.3 The Independent Tester shall not be entitled to contend that any person to whom this Agreement is assigned in accordance with Clause 13.2 is precluded from recovering under this Agreement any loss incurred by such assignee resulting from any breach of this Agreement (whenever happening) by reason that such person is an assignee and not a named [party] under this Agreement.

14 CUMULATIVE RIGHTS AND ENFORCEMENT

14.1 Any rights and remedies provided for in this Agreement whether in favour of Project Co or the Board or the Independent Tester are cumulative and in addition to any further rights or remedies which may otherwise be available to the parties.

14.2 The duties and obligations of the Independent Tester arising under or in connection with this Agreement are owed to Project Co and the Board both jointly and severally and Project Co and the Board may accordingly enforce the provisions hereof and pursue their respective rights hereunder in their own name, whether separately or with each other.

14.3 Project Co and the Board covenant with each other that they shall not waive any rights, remedies or entitlements or take any other action under this Agreement which would or might reasonably be expected to adversely affect the rights, remedies or entitlements of the other without the other's prior written consent, such consent not to be unreasonably withheld or delayed.

15 WAIVER

The failure of any party at any one time to enforce any provision of this Agreement shall in no way affect its right thereafter to require complete performance by any other party, nor

shall the waiver of any breach or any provision be taken or held to be a waiver of any subsequent breach of any provision or be a waiver of the provision itself.

16 SEVERABILITY

In the event that any term, condition or provision contained in this Agreement shall be held to be invalid, unlawful or unenforceable to any extent, such term, clause or provision shall, to that extent, be omitted from this Agreement and the rest of this Agreement shall stand, without affecting the remaining clauses.

17 VARIATION

A variation of this Agreement is valid only if it is in writing and signed by or on behalf of each party.

18 DISPUTE RESOLUTION PROCEDURE

18.1 All disputes shall be resolved in accordance with terms equivalent (mutatis mutandis) to the Dispute Resolution Procedure as set out in the Design Build Finance and Maintain Agreement.

18.2 Project Co, the Board and the Independent Tester shall co-operate to facilitate the proper, just, economical and expeditious resolution of any and all such disputes which arise under this Agreement.

19 GOVERNING LAW AND JURISDICTION

Subject to Clause 18 (*Dispute Resolution Procedure*) above, this Agreement shall be governed by and construed in accordance with the laws of Scotland, and (subject as aforesaid) the parties hereby submit to the non-exclusive jurisdiction of the courts of Scotland.

20 NOT USED

21 THIRD PARTY RIGHTS

Save as expressly set out herein, no provision of this Agreement is intended to or does confer upon any third party any benefit or right enforceable at the option of that third party against any party to this Agreement.

IN WITNESS WHEREOF these presents consisting of this and the [ ] preceding pages and the Appendices are executed as follows:-

APPENDIX 1

SCOPE OF SERVICES - INDEPENDENT TESTER CONTRACT[48]

The Independent Tester shall perform the role of Independent Tester as referred to in Clauses 17 (*Pre-Completion Commissioning and Completion*), 18(*Post Completion Commissioning*) and 19 (*Fossils and Antiquities*) (including complying with any time limits specified in such Clauses) and Schedule Part 6 (*Construction Matters*), Schedule Part 7 (*The Programme*), Schedule Part 8 (*Review Procedure*), Schedule Part 10 (*Outlining Commissioning Programme*), Schedule Part 11 *(Equipment)* and Schedule Part 17 (*Compensation on Termination*) of the Design Build Finance and Maintain Agreement[49], by providing the following scope of Services:

1 MONTHLY REPORT AND COMPLETION CERTIFICATION

The Independent Tester shall:

1.1 During the Works, attend monthly site progress meetings and provide the Board and Project Co with a monthly report on the activities carried out by the Independent Tester.

1.2 Undertake regular inspections during the Works, as necessary, in accordance with the Design Build Finance and Maintain Agreement. Report on the completion status of the Project, identifying any work that is not compliant with the Board's Construction Requirements, Project Co's Proposals, the Approved Reviewable Design Data (Approved RDD) and/or the Completion Criteria.

1.3 Not Used.

1.4 Certify the Actual Completion Date and issue a Certificate of Practical Completion in accordance with the Design Build Finance and Maintain Agreement.

1.5 Within five (5) Business Days of issue of the Certificate of Practical Completion, issue a Snagging Notice specifying any Snagging Matters. Monitor and review rectification of such Snagging Matters in accordance with the Design Build Finance and Maintain Agreement.

1.6 Review the programme for the rectification of all Snagging Matters to be carried out and advise Project Co and the Board as appropriate.

1.7 And in order to enable the Independent Tester to discharge these primary functions which are to be performed independently, fairly and impartially to and as between Project Co and the Board and having regard to the interests of Funders, the Independent Tester shall discharge the further duties described below.

2 GENERAL

The Independent Tester shall:

2.1 Familiarise itself with the Design Build Finance and Maintain Agreement (including the Design Data, the Design Quality Plan, the Construction Quality Plan, the [Equipment Responsibilities Matrix, Schedule Part 11 (Equipment) of the Design Build Finance and Maintain Agreement][50] and any Changes issued from time to time and any other relevant documentation or information referred to in the Design Build Finance and Maintain Agreement, relevant Service Level Specification and Method Statements) and the Construction Contract to the extent necessary to enable it to provide a report to the Board and Project Co on any contradictory requirements contained within the same and to be in a position to carry out the Services in accordance with the terms of the Design Build Finance and Maintain Agreement and this Agreement.

2.2 Following notification by Project Co, pursuant to Clauses 17.8 (Commissioning prior to Completion Date) and 17.10 (Pre-Completion inspection) of the Design Build Finance and Maintain Agreement, inspect and comment as required on the Works as required by [the Completion Process].

3 DESIGN REVIEW

The Independent Tester shall:

3.1 Monitor and report upon the implementation of the Design Quality Plan for the construction, structural and engineering services design for the Project.

3.2 Monitor the detailed working drawings and specifications for a sample number and type of rooms which in his professional judgment is appropriate to be selected by the Independent Tester to verify that they comply with the Approved RDD as described in the Design Build Finance and Maintain Agreement. The Independent Tester has indicated that in normal circumstances twenty-five percent (25%) of rooms should be sampled. If in the professional judgment of the Independent Tester, because of the results of its sample or other circumstances a different sampling percentage is appropriate, he shall provide a detailed report in respect of that and, if so agreed (or determined as between Project Co and the Board by the Dispute Resolution Procedure) any change in the percentage sampling resulting in a change in fees will be borne by Project Co and the Board as they shall agree or as determined by the Dispute Resolution Procedure.

3.3 Review the detailed design information for any approved design or specification variations for compliance with the performance and quality standards of the Design Build Finance and Maintain Agreement, and quality standards as set out in the and the Contractor's Quality Plan.

4 PROCEDURE REVIEW

The Independent Tester shall:

[50] Insert reference to any equipment list or other document as appropriate.

4.1 Monitor the operation of the quality assurance procedures of the Contractor at regular intervals (maximum three (3) months) during the execution of the Works.

4.2 The Independent Tester shall familiarise itself with the proposed procedures and programmes for the testing and commissioning of the Mechanical and Electrical engineering services prior to the Board's occupation.

4.3 Monitor the procedures for the identification, approval and recording of agreed Changes to the Works in accordance with the Design Build Finance and Maintain Agreement.

4.4 Review any samples or mock ups as required by Section 5 (Reviewable Design Data) of Schedule Part 6 (Construction Matters) and Schedule Part 8 (Review Procedure) and check that they have been approved in accordance with the Design Build Finance and Maintain Agreement.

5 CONSTRUCTION REVIEW

The Independent Tester shall:

5.1 Visit the Site and Off-Site and monitor the Works for their compliance with the Board's Construction Requirements, Project Co's Proposals and the Approved RDD.[51] The frequency and timing of the Independent Tester's visits are dependent on the progress of construction on Site and Off-Site. The Contractor shall agree a programme with the Independent Tester for the inspection of key construction processes and the completed Works and shall give the Independent Tester advance notice of these Works being carried out on Site and Off-Site. The Independent Tester shall identify any aspect of the Works which needs to be inspected before being covered over by subsequent activity so that he may satisfy himself that these have been constructed in accordance with the Contractor's Quality Plan without the need for opening up.

5.2 Randomly check that the Works are being undertaken in accordance with the Construction Quality Plan that has been agreed by the Board and Project Co.

5.3 Review the written Mechanical and Electrical engineering services testing and commissioning procedure. Undertake selective witnessing of the Mechanical and Electrical services testing and commissioning. The Independent Tester has indicated that these sampling proportions should amount to approximately fifty percent (50%). The Independent Tester shall review one hundred percent (100%) of all test results. If in the professional judgment of the Independent Tester, because of the results of witnessing (or because of other circumstances) a different sampling percentage is appropriate he shall provide a detailed report in respect of that and any change in the percentage sampling resulting in a change of fees will be borne by Project Co, the Board or the Contractor as they shall agree, failing such agreement, as determined by the Dispute Resolution Procedure.

5.4 Inspect rectification works which have previously prevented the Independent Tester from certifying the Project as complete. Concurrent with the issue of the Certificate of

[51] Authorities to insert any other relevant documents.

Practical Completion, agree a list of Snagging Matters with the Board and Project Co together with its programme for implementation and issue a Snagging Notice in accordance with Clause 17.14 (Completion Certificate) of the Design Build Finance and Maintain Agreement.

5.5 Check the production of the relevant operating manuals, relevant approvals, test results, inspection records and as built drawings and monitor the timely handover of this documentation.

6 PARTICIPATION IN DISPUTE RESOLUTION

As and when required by the Board or Project Co, the Independent Tester shall participate in the Dispute Resolution Procedure of the Design Build Finance and Maintain Agreement (as such term is defined in the Design Build Finance and Maintain Agreement) to the extent that issues under the Design Build Finance and Maintain Agreement which have been referred to the said Dispute Resolution Procedure relate to the Independent Tester's other obligations and tasks as set out in this Appendix 1 and this Agreement.

APPENDIX 2

SECTION 1

SCHEDULE OF DRAWDOWN OF FEES

SECTION 2

SCHEDULE OF DAILY RATES

SCHEDULE PART 14

PAYMENT MECHANISM

[Please refer to separate paper apart]

SCHEDULE PART 15

INSURANCE REQUIREMENTS

SECTION 1

POLICIES TO BE TAKEN OUT BY PROJECT CO AND MAINTAINED DURING THE DESIGN AND CONSTRUCTION PHASE

Policies to be taken out by Project Co and maintained during the design and construction phase.

Common to each policy in Section 1 (Pol*icies to be taken out by Project Co and maintained during the design and construction phase*) (unless stated otherwise):

Insureds:

1. Board

2 Project Co

3 Contractor

4 Service Provider

5 Construction sub-contractors of any tier

6 Senior Funders

7 Subordinated Funders

8 Consultants - for their site activities only

each for their respective rights and interests in the Project

1 [CONTRACTORS' 'ALL RISKS' INSURANCE (CAR)]

1.1 **Insured Property**

The permanent and temporary works, materials (including but not limited to equipment supplied by the Board, goods, plant and equipment for incorporation in the works (other than constructional plant, tools, accommodation and equipment belonging to or the responsibility of the Contractor or the Construction sub-contractors) and all other property used or for use in connection with works associated with the Project.

1.2 **Coverage**

"All risks" of physical loss or damage to the Insured Property unless otherwise excluded.

1.3 **Sum Insured**

At all times an amount not less than the full reinstatement or replacement value of the Insured Property, but not less than the value specified in the Construction Contract plus provision to include Cover Features & Extensions as appropriate.

1.4 **Maximum Deductible**

Not to exceed £150,000 each and every claim for defective design, materials and workmanship and in respect of all other claims £10,000.

1.5 **Territorial Limits**

United Kingdom including offsite storage and during inland transit.

1.6 **Period of Insurance**

From the date of this Agreement until the Actual Completion Date and thereafter in respect of defects liability until expiry of the 12 months defects liability period.

1.7 **Cover Features & Extensions**

1.7.1 Terrorism

1.7.2 Munitions of war clause

1.7.3 Additional costs of completion clause

1.7.4 Professional fees clause (including Board professional fees incurred during any period of reinstatement)

1.7.5 Debris removal clause

1.7.6 72 hour clause

1.7.7 European Union local authorities clause

1.7.8 Free issue materials clause

1.7.9 [10]% escalation clause

1.7.10 Automatic reinstatement of sum insured clause

1.17.11 Loss minimisation

1.17.12 Testing/commissioning period clause

1.17.13 Plans and documents clause

1.17.14 Expediting expenses

1.17.15 Temporary repairs

1.17.16 Waiver of subrogation to Consort Healthcare (Edinburgh Royal Infirmary) Limited, Project Co to the RIE Project

1.8 **Principal Exclusions**

1.8.1 War and related perils (UK market agreed wording)

1.8.2 Nuclear/radioactive risks (UK market agreed wording)

1.8.3 Pressure waves caused by aircraft and other aerial devices travelling at sonic or supersonic speeds

1.8.4 Wear, tear and gradual deterioration

1.8.5 Consequential financial losses

1.8.6 Cyber risks

1.8.7 Inventory losses

1.8.8 Fraud and employee dishonesty

1.8.9 Faulty design, workmanship and materials DE5 or LEG3 option extension

2 DELAY IN START UP INSURANCE (DSU)

2.1 **Insureds**

2.1.1 Project Co

2.1.2 Senior Funders

2.1.3 Subordinated Funders

2.1.4 [Board]

each for their respective rights and interests in the Project.

2.2 **Indemnity**

In respect of:

2.2.1 loss of anticipated Revenue during at least the Minimum Indemnity Period arising from a delay in completion of the Project as a result of loss or damage covered under the Contractors' All Risks' Insurance effected in accordance with Item 1 (*Contractors' 'All Risks' Insurance (CAR*)) of Schedule Part 15 (*Insurance Requirements*), including physical loss or damage which would be indemnifiable but for the application of any deductible;

2.2.2 the economic additional expenditure necessarily and reasonably incurred for the purpose of avoiding or reducing the loss of Revenue of Project Co which without such expenditure would have taken place, during the Minimum Indemnity Period.

2.3 **Sum Insured**

An amount sufficient to cover the sums the subject of the Indemnity for the Minimum Indemnity Period.

2.4 **Maximum Excess**

[£●] / [●] days[52].

2.5 **Minimum Indemnity Period**

[●] months[53].

[52] Bid Back Item: Bidders to propose.

2.6 **Period of Insurance**

As per the Contractors' "All Risks" Insurance, excluding the defects liability period.

2.7 **Cover Features & Extensions**

2.7.1 Denial of access

2.7.2 Utilities

2.7.3 Terrorism

2.7.4 Automatic Reinstatement of sum insured

2.7.5 Professional Fees

2.8 **Principal Exclusions**

2.8.1 The exclusions under the Contractors' 'All Risks' Insurance, other than for consequential financial losses.

2.8.2 Delayed response by a public body or state authority.

3 CONSTRUCTION THIRD PARTY LIABILITY INSURANCE

3.1 **Interest**

To indemnify the Insured in respect of all sums that they may become legally liable to pay (including claimant's costs and expenses) as damages in respect of accidental:

3.1.1 death, or bodily injury, illness, death, disease contracted by any person;

3.1.2 loss or damage to property;

3.1.3 interference to property or any easement right of air, light, water or way or the enjoyment or use thereof by obstruction, trespass, nuisance, loss of amenities, or any like cause.

happening during the Period of Insurance and arising out of or in connection with the Project.

[53] Bid Back Item: Bidders to propose.

3.2 **Limit of Indemnity**

Not less than fifty million pounds (£50,000,000) in respect of any one occurrence, the number of occurrences being unlimited, but in the aggregate in respect of pollution liability.

3.3 **Maximum Deductible**

£10,000 for each and every occurrence of property damage. (Personal injury claims will be paid in full).

3.4 **Territorial Limits**

UK and elsewhere in the world in respect of non manual visits.

3.5 **Jurisdiction**

Worldwide excluding USA and Canada.

3.6 **Period of Insurance**

As per the Contractors' "All Risks" Insurance, including the defects liability period.

3.7 **Cover Features & Extensions**

3.7.1 Munitions of war

3.7.2 Cross liability clause

3.7.3 Contingent motor

3.7.4 Legal defence costs in addition

3.7.5 Personal injury to include false imprisonment, wrongful arrest, eviction or any like cause

3.7.6 Defective premises act clause

3.7.7 Data protection act clause

3.7.8 Indemnify to employees and directors

3.8 **Principal Exclusions**

3.8.1 Liability for death, illness, disease or bodily injury sustained by employees of the insured.

3.8.2 Liability arising out of the use of mechanically propelled vehicles whilst required to be compulsorily insured by legislation in respect of such vehicles.

3.8.3 Liability in respect of predetermined penalties or liquidated damages imposed under any contract entered into by the Insured.

3.8.4 Liability in respect of loss or damage to property in the care, custody and control of the insured but this exclusion is not to apply to all property belonging to the Board which is in the care, custody and control of another Insured.

3.8.5 Events more properly covered under a professional indemnity policy.

3.8.6 Liability arising from the ownership, possession or use of any aircraft or marine vessel.

3.8.7 Liability arising from seepage and pollution unless caused by a sudden, unintended and unexpected occurrence.

3.8.8 Losses indemnified under the CAR policy or DSU policy.

3.8.9 Asbestos.

3.8.10 Toxic mould.

SECTION 2

POLICIES TO BE TAKEN OUT BY PROJECT CO AND MAINTAINED FROM THE ACTUAL COMPLETION DATE

Common to all policies in Section 2 (*Policies to be taken out by Project Co and maintained from the Actual Completion Date*) (unless stated otherwise):

Insureds

1 Board

2 Project Co

3 Service Provider

4 Service Provider's sub-contractors

5 Senior Funders

6 Subordinated Funders

each for their respective rights and interests in the Project.

1 PROPERTY DAMAGE INSURANCE

1.1 Insured Property

The project assets which are the property of Project Co or for which Project Co may be responsible including but not limited to the Facilities.

1.2 Coverage

"All risks" of physical loss or damage to the Insured Property from any cause not excluded, including machinery breakdown and computer breakdown in respect of appropriate equipment.

1.3 Sum Insured

At all times an amount not less than the total reinstatement or replacement value of the Insured Property plus provision to include other Principal Extensions as appropriate (escalated periodically as appropriate).

1.4 Maximum Deductible

£10,000each and every claim (escalated periodically as appropriate).

1.5 **Territorial Limits**

United Kingdom plus elsewhere whilst in inland transit.

1.6 **Period of Insurance**

From the Actual Completion Date or as otherwise specified in this Agreement for the duration of this Agreement and renewable on an annual basis unless agreed otherwise by the Parties.

1.7 **Cover Features & Extensions**

1.7.1 Terrorism

1.7.2 Automatic reinstatement of sum insured

1.7.3 Capital additions clause

1.7.4 72 hour clause

1.7.5 European Union local authorities clause

1.7.6 Professional fees

1.7.7 Debris removal

1.7.8 Pollution and contamination to the Insured Property arising from an event which itself is not otherwise excluded

1.7.9 Repair / reinstatement basis of claims settlement with cash option for non-reinstatement

1.7.10 Theft damage to buildings

1.7.11 Day one reinstatement – 15% uplift

1.7.12 [Waiver of subrogation to Consort Healthcare (Edinburgh Royal Infirmary) Limited, Project Co to the RIE Project]

1.8 **Principal Exclusions**

1.8.1 War and related perils (UK market agreed wording)

1.8.2 Nuclear/radioactive risks (UK market agreed wording)

1.8.3 Pressure waves caused by aircraft and other aerial devices travelling at sonic or supersonic speeds

1.8.4 Wear, tear and gradual deterioration

1.8.5 Consequential financial losses

1.8.6 Cyber risks

1.8.7 Losses recovered under the CAR policy

2 BUSINESS INTERRUPTION INSURANCE

2.1 **Insureds**

2.1.1 Project Co

2.1.2 Senior Funders

2.1.3 Subordinated Funders

each for their respective rights and interests in the Project.

2.2 **Indemnity**

In respect of:

2.2.1 loss of anticipated Revenue during at least the Minimum Indemnity Period arising from an interruption or interference in the operation of the Project as a result of loss or damage covered under Property Damage Insurance effected in accordance with paragraph 1 of Section 2 (*Policies to be taken out by Project Co and maintained from the Actual Completion Date*) of this Schedule Part 15 (*Insurance Requirements*) including physical loss or damage which would be indemnifiable but for the application of any deductible;

2.2.2 the economic additional expenditure necessarily and reasonably incurred for the purpose of avoiding or reducing the loss of Revenue of Project Co which without such expenditure would have taken place, during the Indemnity Period.

2.3 **Sum Insured**

An amount sufficient to cover the sums the subject of the Indemnity for the Minimum Indemnity Period.

2.4 **Maximum Excess**

[£]/[● days].[54]

2.5 **Minimum Indemnity Period**

[●] months.[55]

2.6 **Period of Insurance**

From the Actual Completion Date for the duration of this Agreement and renewable on an annual basis unless agreed otherwise.

2.7 **Cover Features & Extensions**

2.7.1 Denial of access

2.7.2 Terrorism

2.7.3 Utilities

2.7.4 Accountants Clause

2.7.5 Automatic reinstatement of sum insured

2.8 **Principal Exclusions**

2.8.1 Financial losses

[54] Bid Back Item: Project Co to confirm.
[55] Bid Back Item: Project Co to confirm.

2.8.2 Delayed response by a public body or state authority

3 THIRD PARTY PUBLIC AND PRODUCTS LIABILITY INSURANCE

3.1 Indemnity

To indemnify the Insured in respect of all sums that they may become legally liable to pay (including claimant's costs and expenses) as damages in respect of accidental:

3.1.1 death, or bodily injury, illness, death, disease contracted by any person;

3.1.2 loss or damage to property;

3.1.3 interference to property or any easement right of air, light, water or way or the enjoyment or use thereof by obstruction, trespass, nuisance, loss of amenities, or any like cause.

happening during the period of insurance and arising out of or in connection with the Project and the provision of the Services.

3.2 Limit of Indemnity

Not less than fifty million pounds (£50,000,000) (escalated periodically as appropriate) in respect of any one occurrence, the number of occurrences being unlimited, but in the aggregate in respect of pollution and products liability.

3.3 Maximum Deductible

£10,000 for each and every occurrence of property damage (escalated periodically as appropriate). (Personal injury claims will be paid in full).

3.4 Territorial Limits

UK and elsewhere in the world in respect of non manual visits.

3.5 Jurisdiction

Worldwide.

3.6 Period of Insurance

From the Actual Completion Date or as otherwise specified in this Agreement for the

duration of this Agreement and renewable on an annual basis unless agreed otherwise.

3.7 **Cover Features & Extensions**

3.7.1 Munitions of war.

3.7.2 Cross liability clause

3.7.3 Contingent motor

3.7.4 legal defence costs in addition to the Limit of Indemnity

3.7.5 Personal injury to include false imprisonment, wrongful arrest, eviction or any like cause

3.7.6 Health & safety at work act(s) defence costs

3.7.7 Effective premises act clause

3.7.8 Data protection act clause

3.7.9 Directors & employees

3.8 **Principal Exclusions**

3.8.1 Liability for death, illness, disease or bodily injury sustained by employees of the insured.

3.8.2 Liability arising out of the use of mechanically propelled vehicles whilst required to be compulsorily insured by legislation in respect of such vehicles.

3.8.3 Liability in respect of predetermined penalties or liquidated damages imposed under any contract entered into by the insured.

3.8.4 Liability in respect of loss or damage to property in the care, custody and control of the insured but this exclusion is not to apply to all property belonging to the Board which is in the care, custody and control of another Insured Party.

3.8.5 Liability arising out of technical or professional advice (given for a fee) other than in respect of death or bodily injury to persons or damage to third party

property.

3.8.6 Liability arising from the ownership, possession or use of any aircraft or marine vessel.

3.8.7 Liability arising from seepage and pollution unless caused by a sudden, unintended and unexpected occurrence.

3.8.8 Losses under the property damage policy or business interruption policy.

3.8.9 Asbestos

3.8.10 Toxic mould

SECTION 3

ENDORSEMENTS

Unless the context otherwise requires defined terms set out in the following endorsements shall have the meaning set out in the Contract.

Endorsement 1

Cancellation

1 This policy shall not be cancelled or terminated before the original expiry date is to take effect except in respect of non-payment of premium.

2 The insurer shall by written notice advise the Board:

2.1 at least 30 days before any such cancellation or termination is to take effect;

2.2 at least 30 days before any reduction in limits or coverage or any increase in deductibles is to take effect; and

2.3 of any act or omission or any event of which the insurer has knowledge and which might invalidate or render unenforceable in whole or in part this policy.

Endorsement 2

Multiple Insured/Non-Vitiation Clause

1. Each of the parties comprising the insured shall for the purpose of this policy be considered a separate co-insured entity, insured on a composite basis, with the words "the insured" applying to each as if they were separately and individually insured provided that the total liability of the insurers under each section of this policy to the insured collectively shall not (unless the policy specifically permits otherwise) exceed the limit of indemnity or amount stated to be insured under that section or policy. Accordingly, the liability of the insurers under this policy to any one insured shall not be conditional upon the due observance and fulfilment by any other insured party of the terms and conditions of this policy or of any duties imposed upon that insured party relating thereto, and shall not be affected by any failure in such observance or fulfilment by any such other insured party.

2 It is understood and agreed that any payment or payments by insurers to any one or more of the insureds shall reduce, to the extent of that payment, insurers' liability to all such parties arising from any one event giving rise to a claim under this policy and (if applicable) in the aggregate.

3 Insurers shall be entitled to avoid liability to or (as may be appropriate) claim damages from any insured party in circumstances of fraud misrepresentation non-disclosure or material breach of warranty or condition of this policy (each referred to in this clause as a "**Vitiating Act**") committed by that insured party save where such misrepresentation non-disclosure or breach of warranty or condition was committed innocently and in good faith.

4 For the avoidance of doubt it is however agreed that a Vitiating Act committed by one insured party shall not prejudice the right to indemnity of any other insured who has an

insurable interest and who has not committed the Vitiating Act.

5 Insurers hereby agree to waive all rights of subrogation and/or recourse which they may have or acquire against any insured party (together with their employees and agents) except where the rights of subrogation or recourse are acquired in consequence of a Vitiating Act in which circumstances insurers may enforce such rights against the insured responsible for the Vitiating Act notwithstanding the continuing or former status of the vitiating party as an insured.

6 Notwithstanding any other provision of this policy or any other document or any act and/or omission by any insured party insurers agree that:

6.1 no party other than the Board has any authority to make any warranty, disclosure or representation in connection with this policy on behalf of the Board;

6.2 where any warranty, disclosure or representation is required from the Board in connection with this policy insurers will contact the Board in writing (in accordance with Endorsement 3 to the Contract) and set out expressly the warranty, disclosure and/or representation required within a reasonable period of time from the Board (regarding itself); and

6.3 save as set out in a request from insurers to the Board in accordance with (2) above, the Board shall have no duty to disclose any fact or matter to insurers in connection with this policy save to the extent that for the Board not to disclose a fact or matter would constitute fraudulent misrepresentation and/or fraudulent non-disclosure.

Endorsement 3

Communications

1. All notices or other communications under or in connection with this policy shall be given to each insured (and the Board) in writing or by facsimile. Any such notice will be deemed to be given as follows:

1.1 if in writing, when delivered;

1.2 if by facsimile, when transmitted but only if, immediately after transmission, the sender's facsimile machine records a successful transmission has occurred.

2. The address and facsimile number of the Board for all notices under or in connection with this policy are those notified from time to time by the Board for this purpose to Project Co at the relevant time. The initial address and facsimile number of the Board are as follows:

The Board:

Address:

Facsimile No: [ ]

Attention: The Chief Executive from time to time of the Board

3. It is further agreed that a notice of claim given by the Board or any other insured shall in the absence of any manifest error be accepted by the insurer as a valid notification of a claim on behalf of all insureds.

Endorsement 4

Loss Payee (applicable only to the Physical Damage Policies)

Subject to the provision of Clause 53.22.2 of this Agreement all proceeds of this policy shall be payable without deduction or set-off to the Insurance Proceeds Account.

Endorsement 5

Primary Insurance

It is expressly understood and agreed that this policy provides primary cover for the insured parties and that in the event of loss destruction damage or liability covered by this policy which is covered either in whole or in part under any other policy or policies of insurance effected by or on behalf of any of the insured parties the insurers will indemnify the insured parties as if such other policy or policies of insurance were not in force and the insurers waive their rights of recourse if any against the insurers of such other policy or policies of insurance.

Endorsement 6

Ringfencing

The level of any indemnity available to an insured party under this policy in relation to any claim(s) concerning the Project shall not be affected and/or reduced by any claim(s) unrelated to the Project.

SECTION 4

INSURANCE ARRANGEMENTS

1 Project Co must comply with the provisions of this Section 4 of Schedule Part 15 when placing or renewing the Operational Insurances.

2 Not less than sixty (60) Business Days prior to the Completion Date and each subsequent renewal date in respect of each of the Operational Insurances, Project Co must inform the Board's Representative of the forthcoming requirement to place or renew an Operational Insurance and provide either:

2.1 confirmation that any existing long term agreement (entered into with the agreement of the Board) is being maintained, or

2.2 its proposals for obtaining competitive quotations from at least (three (3) suitable insurers. Project Co must take advice from reputable insurance brokers experienced in arranging insurances for similar risks as to which insurers are most likely to provide quotations that will represent best value for money for the Board as payer of the premiums for such insurance. In considering which insurers to approach, Project Co must consider whether any of the Shareholders enjoys any special relationship with any insurer and/or is otherwise able to procure the placing of the relevant insurance in any particular manner consistent with the requirements of this Agreement that may result in lower premiums and shall include such insurers in its proposal under this paragraph2.

3 Within [ten (10)] Business Days of receiving a notice from Project Co pursuant to paragraph2, the Board may provide Project Co with details of up to two (2) other insurers that it wishes Project Co to invite to quote for provision of the relevant Operational Insurance.

4 Not less than thirty (30) Business Days prior to the Completion Date and each subsequent renewal date for any of the Operational Insurances, Project Co must forward to the Board's Representative quotes from the proposed insurers (together with the principal terms and conditions of the relevant insurance policies), to include any insurer nominated by the Board pursuant to paragraph3, including a reasoned recommendation as to which quote Project Co views as offering best value for money for the Board, taking into account all relevant circumstances.

5 Within ten (10) Business Days of receiving a recommendation from Project Co pursuant to paragraph 4, the Board must notify Project Co in writing which insurer it is to place the relevant Operational Insurance with, failing which Project Co shall be entitled to place the relevant Operational Insurance with the insurer recommended by Project Co.

SECTION 5

BROKER'S LETTER OF UNDERTAKING

To: The Board

Dear Sirs

Agreement dated [ ] entered into between [ ] Limited ("Project Co") and [ ] (the "Board") (the "Agreement")

1 We refer to the Agreement. Unless the context otherwise requires, terms defined in the Agreement shall have the same meaning in this letter.

2 We act as insurance broker to Project Co in respect of the Insurances and in that capacity we confirm that the Insurances which are required to be procured pursuant to Clause 53 and Schedule Part 15 of the Agreement:

2.1 where appropriate name you and such other persons as are required to be named pursuant to the Agreement for their respective interests;

2.2 are, in our reasonable opinion as insurance brokers, as at today's date, in full force and effect in respect of all the matters specified in the Agreement; and

2.3 that all premiums due to date in respect of the Insurances are paid and the Insurances are, to the best of our knowledge and belief, placed with insurers which, as at the time of placement, are reputable and financially sound. We do not, however, make any representations regarding such insurers' current or future solvency or ability to pay claims; and that

2.4 the endorsements set out in Section 3 (*Endorsements*) of Schedule Part 15 (*Insurance Requirements*) of the Agreement are as at today's date in full force and effect in respect of the Insurances.

3 We further confirm that the attached cover notes confirm this position.

4 Pursuant to instructions received from Project Co and in consideration of your approving our appointment [or continuing appointment] as brokers in connection with the Insurances, we hereby undertake in respect of the interests of the Board in relation to the Insurances:

4.1 **Notification Obligations**

4.1.1 to notify you at least 30 (thirty) days prior to the expiry of any of the Insurances if we have not received instructions from Project Co to negotiate renewal and in the event of our receiving instructions to renew, to advise you promptly of the details thereof;

4.1.2 to notify you at least 30 (thirty) days prior to ceasing to act as brokers to Project Co unless, due to circumstances beyond our control, we are unable to do so in which case we shall notify you as soon as practicable; and

4.1.3 to pay into the Insurance Proceeds Account without set off or deduction of any kind for any reason all payments in respect of claims received by us from insurers in relation to the Insurances specified in Clauses 30.1 to 30.3 of the Agreement.

4.2 **Advisory Obligations**

4.2.1 to notify you promptly of any default in the payment of any premium for any of the Insurances;

4.2.2 to notify you if any insurer cancels or gives notification of cancellation of any of the Insurances, at least 30 (thirty) days before such cancellation is to take effect or as soon as reasonably practicable in the event that notification of cancellation takes place less than 30 (thirty) days before it is to take effect;

4.2.3 to notify you of any act or omission, breach or default of which we have knowledge which in our reasonable opinion may either invalidate or render unenforceable in whole or in part any of the Insurances or which may otherwise materially impact on the extent of cover provided under the Insurances; and

4.2.4 to advise Project Co of its duties of disclosure to insurers and to specifically advise upon:

(a) the facts, circumstances and beliefs that should generally be disclosed to insurers; and

(b) the obligation not to misrepresent any facts, matters or beliefs to insurers.

4.3 Disclosure Obligations

4.3.1 to disclose to insurers all information made available to us from any source and any fact, change of circumstances or occurrence made known to us from any source which in our reasonable opinion is material to the risks insured against under the Insurances and which properly should be disclosed to insurers as soon as practicable after we become aware of such information, fact, change of circumstance or occurrence whether prior to inception or renewal or otherwise; and

4.3.2 to treat as confidential all information so marked or otherwise stated to be confidential and supplied to us by or on behalf of Project Co or the Board and not to disclose such information, without the prior written consent of the supplier, to any third party other than those persons who, in our reasonable

opinion have a need to have access to such information from time to time, and for the purpose of disclosure to the insurers or their agents in respect of the Insurances in discharge of our obligation set out at Clause 4.3.1 of this letter. Our obligations of confidentiality shall not conflict with our duties owed to Project Co and shall not apply to disclosure required by an order of a court of competent jurisdiction, or pursuant to any applicable law, governmental or regulatory authority having the force of law or to information which is in the public domain.

4.4 Administrative Obligations

4.4.1 to hold copies of all documents relating to or evidencing the Insurances, including but without prejudice to the generality of the foregoing, insurance slips, contracts, policies, endorsements and copies of all documents evidencing renewal of the Insurances, payment of premiums and presentation and receipt of claims;

4.4.2 to supply to the Board and/or its insurance advisers (or the Board's or its insurance advisers' authorised representatives) promptly on written request copies of the documents set out in Clause 5.4.1 of this letter, and to the extent available, to make available to such persons promptly upon the Board's request the originals of such documents;

4.4.3 to administer the payment of premiums due pursuant to the Insurances such that, in so far as we hold appropriate funds, all such premiums shall be paid to insurers in accordance with the terms of the Insurances;

4.4.4 to administer the payment of claims from insurers in respect of the Insurances (the "Insurance Claims") including:

(a) negotiating settlement of Insurance Claims presented in respect of the Insurances;

(b) collating and presenting all information required by insurers in relation to Insurance Claims presented in respect of the Insurances, and

(c) insofar as it is relevant and practicable, liaising with and reporting to each Board throughout the settlement, payment and administration of such Insurance Claims.

4.4.5 to advise the Board promptly upon receipt of notice of any material changes which we are instructed to make in the terms of the Insurances and which, if effected, in our opinion as Insurance Brokers would result in any material reduction in limits or coverage or in any increase in deductibles, exclusions or exceptions;

4.4.6 to advise the Board in advance of any change to the terms of, or any lapse, non-renewal and/or cancellation of any policy maintained in respect of the Insurances;

4.4.7 to use our reasonable endeavours to have endorsed on each and every policy evidencing the Insurances (when the same is issued) endorsements substantially in the form set out in Section 3 (Endorsements) to Schedule Part 15 (Required Insurances) of the Agreement; and

4.4.8 to provide, prior to the Commencement of the Operational Insurances and prior to each renewal of any of them, a statement containing

(a) the information required to satisfy the requirement of Section 4 of Schedule Part 15 (*Insurance Requirements*) to the Project Agreement; and

(b) our opinion, supported by appropriate evidence, of the generally prevailing market for the relevant Insurance and of any other circumstances relevant to the application of paragraph 3.2 of Section 6 (*Pass Through Costs*) of Schedule Part 14 (*Payment Mechanism*) to the Project Agreement to the premiums for the relevant Insurance specifying the impact of each factor on the premium quotations obtained.

5 NOTIFICATION DETAILS

Our obligations at Clause 4 of this letter to notify or inform you shall be discharged by providing the requisite information in hard copy to: [Board]

6 We shall supply further letters substantially in this form on renewal of each of the Insurances and shall supply copies of such letters to those parties identified to us by the Board for such purposes.

Yours faithfully

For and on behalf of [Project Co's broker]

SCHEDULE PART 16

CHANGE PROTOCOL

SECTION 1

DEFINITIONS

In this Schedule Part 16 (*Change Protocol*) and elsewhere in this Agreement (save where Schedule Part 1 provides to the contrary) the following words shall have the following meanings:

"Adjustment Date"	means the date on which the adjustment to the Annual Service Payments takes effect in accordance with the provisions of this Agreement, or such other date as is agreed between the parties;
"Affordable"	means within the revenue resource parameters determined by the Board and notified in writing by it to Project Co as available for a proposed High Value Change;
"Approval Criteria"	has the meaning given in paragraph 7 (*Approval Criteria*) of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Approved Criteria"	has the meaning given in paragraph 8.2.1 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Assumption Adjustment"	means an adjustment to any of the assumptions contained in the Financial Model;
"Board Change"	means, as the case may be, a Low Value Change, a Medium Value Change or a High Value Change;
"Board Change Notice"	means a notice issued in accordance with this Schedule Part 16 (*Change Protocol*) requiring an Board Change;
"Calculation Date"	means the relevant date for the purposes of calculating the Incurred Change Management Fee in accordance with Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Capital Cost"	means in relation to any High Value Change the cost of carrying out the design, construction and commissioning of any construction works required to implement that High Value Change;
"Catalogue of Small Works and Services" and "Catalogue"	means the list of prices and time periods for types of Low Value Changes set out in Appendix 1 Part 1 (*Catalogue*) to this Schedule Part 16 (*Change Protocol*), as amended from time to time in accordance with paragraph 3 (*Project Co Response and Board Confirmation*) of Section 2 (*Low Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Catalogue Price"	means the total cost (excluding VAT) of carrying out a

Low Value Change as set out in the Catalogue;

"Catalogue Review Date" means each third anniversary of the Commencement Date;

"Change" means a change in the Works, the Facilities and/or Services or additional works and/or services or a change in the Board's Policies that may be made under Clause 33 (*Change Protocol*) or this Schedule Part 16 (*Change Protocol*);

"Change in Costs" means in respect of any Relevant Event, the effect of that Relevant Event (whether of a one-off or recurring nature, and whether positive or negative) upon the actual or anticipated costs, losses or liabilities of Project Co and/or the Contractor and/or any Service Provider (without double counting), including, as relevant, the following:

(a) the reasonable costs of complying with the requirements of Clauses24.9, 29(*Delay Events*),32 (*Changes in Law*) and/or Sections 2 (*Low Value Changes*) to 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*), including the reasonable costs of preparation of design and estimates;

(b) the costs of continued employment of, or making redundant, staff who are no longer required;

(c) the costs of employing additional staff;

(d) reasonable professional fees;

(e) the costs to project co of financing any relevant event (and the consequences thereof) including commitment fees and capital costs interest and hedging costs, lost interest on any of project co's own capital employed and any finance required pending receipt of a lump sum payment or adjustments to the annual service payment;

(f) the effects of costs on implementation of any insurance reinstatement in accordance with this Agreement, including any adverse effect on the insurance proceeds payable to Project Co (whether arising from physical damage insurance or business interruption insurance (or their equivalent)) in respect of that insurance reinstatement and any extension of the period of implementation of the insurance reinstatement;

(g) operating costs, including Lifecycle Replacement or maintenance costs;

(h) Capital Expenditure (or, in the case of a Relevant Event which is a Relevant Change in Law, Capital Expenditure for which the Board is responsible);

(i) the costs required to ensure continued compliance with the Funding Agreements;

(j) any deductible or increase in the level of deductible, or any increase in premium under or in respect of any insurance policy; and

(k) Direct Losses or Indirect Losses, including reasonable legal expenses on an indemnity basis;

"Change Management Fee" means the fee calculated in accordance with paragraph (*Information and notifications by the Board to Project Co and cooperation of the Board*) of Section 4 (*High Value Changes*);

"Cost" where used in the definitions of High Value Change and Low Value Change means the immediate cost that will be incurred by Project Co to implement the relevant Change, disregarding any Whole Life Costs;

"Derogated Low Value Change" means:

(a) [list specific types of Changes to be allowed] and

(b) any other Low Value Change that:

(i) consists of minor works;

(ii) only affects the interior of the Facilities;

(iii) does not affect any of the mechanical and electrical equipment of the Facilities;

(iv) does not involve any interference with the service media in the Facilities;

(v) will not conflict with any Programmed Maintenance or Lifecycle Replacement; and

(vi) will not prejudice any of the Operational Insurances;

"Derogated Low Value Change means a notice given by the Board in accordance with paragraph 1.2 of Section 2 (*Low Value Changes*) of this

Notice"	Schedule Part 16 (*Change Protocol*);
"Estimate"	has the meaning given in paragraph 3 of Section 3 (*Medium Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Estimated Change in Project Costs"	means, in respect of any Relevant Event, the aggregate of any Change in Costs and/or (without double counting) Change in Revenue (as relevant);
"High Value Change"	means: (a) a Change requested by the Board that, in the reasonable opinion of the Board, is likely either to Cost in excess of [five hundred thousand pounds (£500,000)] index linked or to require an adjustment to the Annual Service Payment that on a full year basis is 2% or more of the Annual Service Payment in the relevant Contract Year provided that the parties may agree that such a Change should instead be processed as a Medium Value Change; or (b) any other Change that the parties agree is to be treated as a High Value Change;
"High Value Change Proposal"	means a proposal satisfying the requirements of paragraph 3.4 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"High Value Change Requirements"	has the meaning given in paragraph 2.1.3 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"High Value Change Stage 2 Submission"	has the meaning given in paragraph 4.1.1 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Incurred Change Management Fee"	means the amounts actually incurred or payable by or on behalf of Project Co up to the Calculation Date in respect of matters identified by Project Co pursuant to paragraphs 3.4.3 and/or 4.3.7 of Section 4 (*High Value Changes*) of this Schedule as falling within the Change Management Fee (and not already reimbursed by the Board);
"Input Adjustment"	means any adjustment to the Financial Model other than Assumption Adjustment and Logic Adjustments;
"Key Ratios"	means the following ratios: (a) the [Loan Life Cover Ratio] (as defined in the Senior Funding Agreements); (b) the [Annual Debt Service Cover Ratio] (as defined

in the Senior Funding Agreements);

(c) the [Project IRR]; and

(d) the [Subordinated Debt Rate];

"Logic Adjustment" means an adjustment to the logic or formulae contained in the Financial Model;

"Low Value Change" means a Change which is either:

(a) of a type listed in the Catalogue of Small Works and Services; or

(b) is not so listed, but has an individual Cost not exceeding [twenty five thousand pounds (£25,000)] index linked , or as otherwise agreed from time to time, except for any request that would (if implemented) increase the likelihood of Project Co failing to meet the Board's Construction Requirements and/or the Service Level Specification or materially and adversely affect Project Co's ability to perform its obligations under this Agreement;

"Medium Value Change" means a Change requested by the Board which is not a Low Value Change or a High Value Change;

"Post-Adjustment Financial Model" means the Financial Model in effect immediately following the making of the relevant Adjustments;

"Pre-Adjustment Financial Model" means the Financial Model in effect immediately prior to the making of the relevant Adjustments;

"Project Co Change" means a Change that is initiated by Project Co by submitting a Project Co Notice of Change to the Board pursuant to Section 5 (*Project Co Changes*) of this Schedule Part 16 (*Change Protocol*);

"Project Co Notice of Change" has the meaning given in paragraph 1 of Section 5 (*Project Co Changes*) of this Schedule Part 16 (*Change Protocol*);

"Relevant Event" means an event or circumstance in which this Agreement expressly provides for an adjustment to the Annual Service Payments to be made;

"Review Procedure" means the procedure set out in Schedule Part 8 (*Review Procedure*);

"Small Works and Services Rates" means the rates to be applied in respect of any request from the Board for a Low Value Change set out in Appendix 1 Part 2 (*Small Works and Services Rates*) to this Schedule Part 16 (*Change Protocol*), as amended from time to time in accordance with paragraph 8 of

	Section 2 (*Low Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Stage 1 Approval"	has the meaning given in paragraph 3.7 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Stage 1 Approved Project"	has the meaning given in paragraph 3.7 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Stage 2 Approval"	has the meaning given in paragraph 8.2.1 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Target Cost"	has the meaning given in paragraph 2.1.2 of Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*);
"Third Party Costs"	means the costs incurred by Project Co with third parties in responding to an Board Change Notice for a Medium Value Change or a High Value Change, including, but not limited to, the Sub-Contractors, consultants and advisers; and
"Whole Life Cost"	means the estimated and (to the extent that such information is available) the actual cost of operating and maintaining that High Value Change over its intended design life (consistent with Project Co's Proposals).

SECTION 2

LOW VALUE CHANGES

1. Low Value Change Notice

1.1 Subject to paragraph 1.2 of this Section 2 (*Low Value Changes*), where a Low Value Change is required by the Board, it must submit an Board Change Notice to Project Co.

1.2 The Board may carry out Derogated Low Value Changes during the Operational Term. If the Board wishes to carry out a Derogated Low Value Change it shall send Project Co a notice at least [five (5)] Business Days prior to the date on which it proposes to start to implement the Change setting out the nature of the proposed Change in sufficient detail to enable Project Co to satisfy itself that the proposed Change constitutes a Derogated Low Value Change. Project Co may notify the Board within [three (3)] Business Days of receipt of a Derogated Low Value Change Notice that it does not agree that the proposed Change constitutes a Derogated Low Value Change and, unless the parties otherwise agree, the Board must not take any steps to carry out the proposed Change unless it has referred the dispute to the Dispute Resolution Procedure and it has been determined that the proposed Change is a Derogated Low Value Change.

1.3 If it carries out a Derogated Low Value Change, the Board must use Good Industry Practice to the standards that would have applied to Project Co if it had carried it out as a Low Value Change.

2 Board Change Notice

An Board Change Notice for a Low Value Change must:

2.1 state that it relates to a Low Value Change;

2.2 contain a description of the works and/or the change to the Works and/or the Services that the Board requires including, if relevant, the applicable type of Low Value Change listed in the Catalogue; and

2.3 if there is no applicable type of change listed in the Catalogue, specify the time period within which the Board requires the Change to be implemented.

3 Project Co Response and Board Confirmation

Within five (5) Business Days of receipt of an Board Change Notice for a Low Value Change, Project Co must notify the Board of:

3.1 the cost of implementing the required Low Value Change; and

3.2 the time period for implementing the Low Value Change,

in each case in accordance with paragraph 4 of this Section 2 (*Low Value Changes*).

4 Cost and Timing

4.1 If the Low Value Change is of a type listed in the Catalogue, the cost of carrying out that Low Value Change shall not exceed the relevant Catalogue Price and the time period for implementing the Low Value Change shall not exceed the relevant time specified in the Catalogue.

4.2 If the Low Value Change is not of a type that is listed in the Catalogue, the cost of carrying out that Low Value Change shall be calculated on the basis that:

4.2.1 wherever practicable the Low Value Change will be carried out by an existing on-site and suitably qualified employee of Project Co or a Project Co Party and in that case Project Co may not charge for labour. Where there is no such suitably qualified on-site employee reasonably available to carry out the Low Value Change, the cost of the labour element will be calculated in accordance with the Small Works and Services Rates or, where such rates are not applicable, in accordance with rates which are fair and reasonable; and

4.2.2 the materials element will be charged at the cost of materials to Project Co or to the Project Co Party carrying out the work (net of all discounts) and there shall be no management fee, margin, overhead, contingency or other cost applied in relation thereto.

4.3 Other than the costs referred to in paragraphs 4.1 and 4.2 of this Section 2 (*Low Value Changes*) Project Co may not charge the Board for processing, implementing or managing a Low Value Change.

5 Board objection

The Board may object in writing within five (5) Business Days of receipt of Project Co's notice pursuant to paragraph 3 of this Section 2 (*Low Value Changes*), to any part of that notice and in that event the parties shall act reasonably to endeavour to agree as soon as practicable how the Low Value Change is to be implemented, which may include the Board withdrawing the Board Notice of Change.

6 Implementation

6.1 Project Co must implement a required Low Value Change so as to minimise any inconvenience to the Board and, subject to paragraph 10.2 of this Section 2 (*Low Value Changes*), within the timescale specified in the notice given by Project Co pursuant to paragraph 3 of this Section 2 (*Low Value Changes*) (or agreed by the parties pursuant to paragraph 5 of this Section 2 (*Low Value Changes*)).

6.2 Project Co shall notify the Board when it considers that the Low Value Change has been completed.

6.3 If Project Co:

6.3.1 fails to give a notice to the Board in accordance with paragraph 3 of this Section 2 (*Low Value Changes*) within fifteen (15) Business Days of the date of the Board Change Notice; or

6.3.2 gives a notice pursuant to paragraph 3 of this Section 2 (*Low Value Changes*) to which the Board has objected pursuant to paragraph 5 of this Section 2 (*Low Value Changes*) on any ground other than the cost of the Low Value Change, the parties have not reached agreement as to how the Low Value Change is to be implemented and the objection has not been referred to the Dispute Resolution Procedure; or

6.3.3 gives a notice pursuant to paragraph 3 of this Section 2 (Low Value Changes) to which the Board does not object pursuant to paragraph 5 but then fails to fully implement the Low Value Change within ten (10) Business Days after the timescale specified in that notice or agreed in accordance with paragraph 5 of this Section 2 (*Low Value Changes*),

then, subject to paragraph 10.3 of this Section 2 (*Low Value Changes*), the Board may notify Project Co that the Low Value Change Notice is withdrawn and, following such notification, may procure the implementation of the Low Value Change without further recourse to Project Co, but the Board must ensure that the Low Value Change is carried out in accordance with Good Industry Practice and to the standards that would have applied to Project Co if it had implemented the Low Value Change.

7 Payment

Unless the Board notifies Project Co within five (5) Business Days of receipt of a notice from Project Co pursuant to paragraph 6.2 above that the Low Value Change has not been implemented to its reasonable satisfaction:

7.1 Project Co shall, where the Low Value Change is implemented prior to the Operational Term, issue an invoice in respect of the costs of the Low Value Change, which the Board must pay within 20 Business Days of receipt; or

7.2 Project Co shall, where the Low Value Change is implemented during the Operational Term, include the costs of the Low Value Change in the next Monthly Invoice submitted pursuant to Clause 34.2 of this Agreement following completion or implementation of the relevant Low Value Change and the amounts payable for the Low Value Changes shall be invoiced and paid in accordance with the procedure described in Clause 34 of this Agreement.

8 Update of Catalogue and Small Works and Services Rates

8.1 From the Commencement Date the Catalogue shall be that set out in Part 1 of Appendix 1 to this Schedule Part 16 (*Change Protocol*) and the Small Works and Services Rates shall be those set out in Part 2 of Appendix 1 to this Schedule Part 16 (*Change Protocol*).

8.2 Subject to paragraph 8.3 of this Section 2 (*Low Value Changes*), the unit prices and the Small Works and Services Rates set out in the Catalogue and the Small Works and Services Rates shall be index linked on each anniversary of the Commencement Date for the change in RPI since the Commencement Date or, after the first Catalogue Review Date, since the most recent Catalogue Review Date.

8.3 On the date which is twenty (20) Business Days before each Catalogue Review Date, Project Co must provide the Board with:

8.3.1 a revised and updated Catalogue which:

(a) includes in the Catalogue unit prices for any types of Low Value Changes which have occurred and which the parties consider are reasonably likely to reoccur during the life of the Project and any other types of Low Value Changes as the parties may agree; and

(b) includes time periods for the carrying out of each listed type of Low Value Change; and

8.3.2 updated Small Works and Services Rates.

The unit prices and Small Works and Services Rates will be for the ensuing three-year period following the Catalogue Review Date. The unit prices must represent good value for money having regard to:

(a) prices prevailing for similar items in the market at the time; and

(b) paragraph 4.2 of this Section 2 (*Low Value Changes*).

The Small Works and Services Rates must provide value for money with reference to rates prevailing for similar services in the market at the time.

8.4 Within ten (10) Business Days of the submission by Project Co of the revised and updated Catalogue and Small Works and Services Rates pursuant to paragraph 8.3 of this Section 2 (*Low Value Changes*), the Board shall confirm in writing whether or not it agrees that the revised and the updated Catalogue shall constitute the Catalogue and the updated Small Works and Services Rates shall constitute the Small Works and Services Rates for the purposes of this Agreement from the relevant Catalogue Review Date;

8.5 If the Board does not confirm to Project Co that it agrees with the revised and updated Catalogue and/or Small Works and Services Rates provided by Project Co pursuant

to paragraph 8.3 of this Section 2 (*Low Value Changes*), the parties shall meet and endeavour, in good faith, to agree any amendments to the Catalogue and/or Small Works and Services Rates. Any dispute in relation to this paragraph 8 may be referred by either party to the Dispute Resolution Procedure. The revised and updated Catalogue and revised and updated Small Works and Services Rates with such amendments as are agreed by the parties or determined under the Dispute Resolution Procedure shall constitute the Catalogue and the Small Works and Services Rates for the purposes of this Agreement from the relevant Catalogue Review Date.

9 Documentation and Monitoring

9.1 No due diligence (whether funder, legal, technical, insurance or financial) shall be required in relation to Low Value Changes unless otherwise agreed between the parties.

9.2 No changes shall be made to this Agreement or any Project Document as a result of a Low Value Change, unless otherwise agreed between the parties.

9.3 Where it is agreed that an adjustment of the Annual Service Payment is required in respect of a Low Value Change, the Financial Model shall be adjusted to give effect to such Low Value Changes once each Contract Year on a date to be agreed between the parties and all relevant Low Value Changes that have occurred since the preceding such adjustment shall be aggregated together into a single cumulative adjustment in accordance with Section 6 (*Changing the Financial Model*) of this Schedule Part 16 (*Change Protocol*).

9.4 Project Co shall keep a record of all Low Value Changes processed, completed and outstanding and shall provide the Board with a copy of that record whenever reasonably required by the Board.

10 Disputes

10.1 Any dispute concerning any matter referred to in this Section 2 (*Low Value Changes*) may be referred by either party to the Dispute Resolution Procedure.

10.2 Project Co shall not be obliged to implement the Low Value Change until any dispute has been determined except that where such dispute concerns only the cost of a Low Value Change, unless the Board otherwise directs, Project Co must continue to carry out or implement the Low Value Change within the prescribed timescale notwithstanding the dispute.

10.3 The Board is not entitled to withdraw an Board Change Notice and procure implementation of a Low Value Change in respect of which there is a dispute that has been referred to the Dispute Resolution Procedure, unless that dispute has been determined in its favour and Project Co has not confirmed to the Board in writing within five (5) Business Days of the date of the determination that it will implement and carry out the Low Value Change in accordance with the determination.

SECTION 3

MEDIUM VALUE CHANGES

1 Medium Value Changes

1.1 If the Board requires a Medium Value Change, it must serve an Board Change Notice on Project Co in accordance with paragraph 2 (*Medium Value Change Notice*) of this Section 3 (Medium Value Changes).

1.2 Project Co shall be entitled to refuse a Medium Value Change that:

1.2.1 requires the Works and/or the Services to be performed in a way that infringes any law or is inconsistent with Good Industry Practice;

1.2.2 would cause any Necessary Consent to be revoked (or would require a new consent to be obtained or any existing Necessary Consent to be amended which, after using reasonable efforts, Project Co has been unable to obtain);

1.2.3 would materially and adversely affect Project Co's ability to deliver the Works and/or the Services (except those Works and/or Services which have been specified as requiring to be amended in the Board Change Notice) in a manner not compensated for pursuant to this Section 3 (*Medium Value Changes*);

1.2.4 would materially and adversely affect the health and safety of any person;

1.2.5 would, if implemented, materially and adversely change the nature of the Project (including its risk profile); or

1.2.6 the Board does not have the legal power or capacity to require implementation of.

2 Medium Value Change Notice

2.1 An Board Change Notice for a Medium Value Change must:

2.1.1 state that it refers to a Medium Value Change;

2.1.2 set out the change in the Works or Services or the additional works or services required in sufficient detail to enable Project Co to calculate and provide the Estimated Change in Project Costs in accordance with paragraph 3 (*Contractor's Estimate*) of this Section 3 (*Medium Value Changes*);

2.1.3 set out whether, in respect of any additional facilities, Project Co is expected to provide facilities management services and lifecycle maintenance services in respect of such additional facilities; and

2.1.4 set out the timing of the additional works or services required by the Board.

2.2 Within fifteen (15) Business Days of receipt of the Medium Value Change Notice, Project Co must notify the Board in writing:

2.2.1 whether it considers that it is entitled to refuse the Medium Value Change on any of the grounds set out in paragraphs 1.2.1 to 1.2.6 of this Section 3;

2.2.2 when it will provide the Estimate to the Board bearing in mind the requirement in paragraph 7.2.2 of this Section 3; and

2.2.3 its estimate of the Third Party Costs that it will incur to prepare the Estimate.

2.3 If Project Co notifies the Board that it considers that it is entitled to refuse the Medium Value Change on one or more of the grounds set out in paragraphs 1.2.1 to 1.2.6 of this Section 3, then unless the parties otherwise agree, the Board shall be deemed to have withdrawn the Board Notice of Change if it has not referred the matter to the Dispute Resolution Procedure within twenty (20) Business Days of receipt of Project Co's notice.

2.4 If the Board considers that Project Co's proposed time for providing the Estimate is not reasonable, the parties shall endeavour to agree the time, failing which the matter may be referred to the Dispute Resolution Procedure.

2.5 If the Board considers that the Project Co's estimate of Third Party Costs to prepare the Estimate is not reasonable, the parties shall endeavour to agree the same, failing which the matter may be referred to the Dispute Resolution Procedure.

2.6 If any matter is referred to the Dispute Resolution Procedure pursuant to paragraph 2 (*Medium Value Change Notice*) of this Section 3 (*Medium Value Changes*), the time for Project Co to provide the Estimate shall be counted from the date of determination of that dispute if the dispute is determined in Project Co's favour.

3 Contractor's Estimate

As soon as reasonably practicable and in any event within the time period agreed or determined pursuant to paragraph 2.4 of this Section 3, Project Co shall deliver to the Board the Estimate.

The Estimate must contain:

3.1 a detailed timetable for implementation of the Medium Value Change;

3.2 any requirement for relief from compliance with obligations, including the obligations of Project Co to achieve the Actual Completion Date by the Completion Date and to meet the requirements set out in the Board's Construction Requirements and/or the Service Level Specification during the implementation of the Medium Value Change;

3.3 an outline of the proposed design solution and design, including an appropriate analysis/risk appraisal and, to the extent relevant, the impact on whole life costings;

3.4 any impact on the provision of the Works and/or the Services;

3.5 a value for money justification for any proposed change to the quality of the works or the services comprised in the Medium Value Change as compared to the Works and the Services;

3.6 any amendment required to this Agreement and/or any Project Document as a result of the Medium Value Change;

3.7 any Estimated Change in Project Costs that results from the Medium Value Change;

3.8 any Capital Expenditure that is required or no longer required as a result of the Medium Value Change;

3.9 amendments to existing Necessary Consents that are required;

3.10 a payment schedule for any Capital Expenditure required to implement the Change, based on milestones where relevant;

3.11 costs and details of (i) any other approvals required and/or due diligence permitted pursuant to paragraph 12 of this Section 3 (*Medium Value Changes*); and (ii) any Third Party Costs;

3.12 the method of implementation and the proposed method of certification of any construction aspects of the Medium Value Change, if not covered by the procedures specified in Clause 14 (*Programme and Dates for Completion*); and

3.13 any other information requested by the Board in the Board Change Notice.

together the "**Estimate**"

4 Costing of the Estimate

In calculating the Estimated Change in Project Costs and/or the Capital Expenditure for the purposes of the Estimate, Project Co shall apply the following principles wherever applicable:

4.1 unless the Board's requirements for the Medium Value Change specify a different quality as compared to the Works:

4.1.1 the unit cost of any construction or installation works or associated preliminaries (excluding any temporary or demolition works, professional fees, contingencies, overheads and profit margins) required to implement the Medium Value Change is the equivalent unit rate set out in Part 1 (*Unit Cost for Construction or Installation Costs*) of Appendix 2 of this Schedule Part 16 (*Change Protocol*), uplifted using the DTI Pubsec index for construction cost inflation in the period between the Commencement Date and the date the Medium Value Change is to be commenced;

4.1.2 any Lifecycle Replacement and Maintenance Works associated with additional works (or changes to the Works) are consistent with the lifecycle and maintenance profile of the Facilities envisaged in Section 4 (*Project Co's Proposals*) of Schedule Part 6 (*Construction Matters*) including (without limitation) in terms of the replacement cycles for equipment, provided that Project Co must reflect improvements in technology that can optimise Whole Life Costs for the Board; and

4.1.3 the unit costs to be applied to the pricing of lifecycle replacement and maintenance is the equivalent unit rate set out in Part 2 (*Unit Costs of Lifecycle Maintenance*) of Appendix 2 of this Schedule Part 16 (*Change Protocol*) (index linked);

4.2 any professional fees, contingencies, overheads and/or profit margins to be charged by any consultant, sub-contractor or supplier in respect of construction and/or installation and/or lifecycle and/or service provision for the Medium Value Change are the equivalent rates set out in Part 3 (*Consultant, Sub-contractor or Supplier Fees*) of Appendix 2 of this Schedule Part 16 (*Change Protocol*), or if the professional fees, contingencies, overheads and profit margins being charged by consultants, sub-contractors and/or suppliers in current market conditions have changed significantly from those set out in Part 3 (*Consultant, Sub-contractor or Supplier Fees*) of Appendix 2 of this Schedule Part 16 (*Change Protocol*), such other rates as the parties agree or failing agreement as may be determined under the Dispute Resolution Procedure as being consistent with those charged in current market conditions;

4.3 unless the Board's requirements for the Medium Value Change specify a different quality than required by the Service Level Specification, the unit cost of any extension of, or change to, any Service (either in scope or area), taking into account the capacity of existing labour resources, is consistent with the equivalent unit rate set out in Part 4 of Appendix 2 to this Schedule Part 16 (*Change Protocol*);

4.4 other than as referred to in paragraphs 4.1 to 4.3 of this Section 3 (*Medium Value Changes*) no charge shall be made in respect of Project Co's time, or that of any Project Co Party spent processing, managing or monitoring the Medium Value Change (and no additional mark up or management fee shall be applied by Project Co); and

4.5 where aspects of the Medium Value Change are not addressed by paragraphs 4.1 to 4.4 of this Section 3 (*Medium Value Changes*), they shall be costed on a fair and reasonable basis reflecting the then current market rates.

5 Standards of provision of the Estimate

In providing the Estimate Project Co must:

5.1 use reasonable endeavours to oblige its Sub-Contractors to minimise any increase in costs and maximise any reduction in costs;

5.2 demonstrate how any Capital Expenditure to be incurred or avoided is being measured in a cost effective manner, including showing that when such expenditure is incurred, reasonably foreseeable Changes in Law at that time have been taken into account; and

5.3 demonstrate that any expenditure that has been avoided, which was anticipated to be incurred to replace or maintain assets that have been affected by the Medium Value Change concerned, has been taken into account in the amount which in its opinion has resulted or is required under paragraphs 3.7 and/or 3.8 of this Section 3; and

5.4 provide written evidence of Project Co's compliance with paragraphs 5.1 to 5.3 of this Section 3.

6 Determination of the Estimate

As soon as practicable after the Board receives the Estimate, the parties shall discuss and endeavour to agree the contents of the Estimate. If the parties cannot agree on the contents of the Estimate, the matter may be referred by either party to the Dispute Resolution Procedure to determine if the Estimate represents a fair and reasonable approach to implementing the Medium Value Change in all respects.

7 Confirmation or Withdrawal of the Medium Value Change Notice

7.1 As soon as practicable after the contents of the Estimate have been agreed or otherwise determined pursuant to paragraph 6 of this Section 3, the Board shall:

7.1.1 confirm in writing to Project Co the Estimate (as modified); or

7.1.2 withdraw the Board Change Notice.

7.2 If, in any Contract Year, the Board has either not confirmed an Estimate (as modified, if applicable) within twenty (20) Business Days of the contents of the Estimate having been agreed or determined in accordance with the foregoing provisions of this Section 3 or has withdrawn an Board Change Notice for a Medium Value Change on three or more occasions, then the Board shall pay to Project Co on the third and each subsequent such occasion in that Contract Year the reasonable additional Third Party Costs incurred by Project Co in preparing the Estimate provided that:

7.2.1 Project Co has used all reasonable endeavours to submit a reasonably

priced Estimate; and

7.2.2 Project Co made available to the Board, with the Estimate, a cost break down of Third Party Costs incurred by Project Co to prepare the Estimate, which shall be consistent with the estimate of such costs approved by the Board pursuant to paragraph 2.5 of this Section 3.

8 Implementation of the Medium Value Change

8.1 When the Board has confirmed the Estimate in accordance with paragraph 7.1 of this Section 3, Project Co shall, subject to Project Co obtaining all new or amended Necessary Consents that are required and have not already been obtained, implement the required Medium Value Change in accordance with the Estimate. Where an extension of time has been agreed as part of the Estimate the Completion Date shall be extended as agreed in the Estimate.

8.2 Project Co shall notify the Board when it considers that the Medium Value Change has been completed.

8.3 If:

8.3.1 Project Co fails to provide a response pursuant to paragraph 2.2 of this Section 3 within fifteen (15) Business Days of the date of the Medium Value Change Notice; or

8.3.2 Project Co fails to provide an Estimate in accordance with paragraph 3 of this Section 3; or

8.3.3 the Board has confirmed an Estimate but Project Co fails to fully implement the Medium Value Change within ten (10) Business Days after the expiry of the time for implementing the Medium Value Change set out in the Estimate Low Value Change (as such time may be extended for any delay that is, or is equivalent to, a Delay Event);

then, subject to paragraph 14.3 of this Section 3, the Board may notify Project Co that the Medium Value Change Notice is withdrawn and, following such notification, may procure the implementation of the Medium Value Change without further recourse to Project Co, but the Board must ensure that the Medium Value Change is carried out in accordance with Good Industry Practice and to the standards that would have applied to Project Co if it had implemented the Medium Value Change.

9 Certification of the Medium Value Change

9.1 Where the Medium Value Change is implemented at the Facilities and/or the Retained Estate Handback Infrastructure before the Actual Completion Date, the procedure set out at Clause 17 (*Pre-Completion Commissioning and Completion*) shall apply to the Medium Value Change at the same time as it applies to the original Works.

9.2 Where the Medium Value Change is implemented at the Facilities after the Actual Completion Date and constitutes additional works, the procedure set out and agreed in the Estimate for certifying the completion of the Medium Value Change shall apply to determine whether the Medium Value Change has been completed appropriately.

10 Method of Payment of Board Contribution

10.1 Project Co shall invoice the Board for Capital Expenditure incurred by Project Co to implement a Medium Value Change according to the payment schedule set out in the Estimate as referred to in paragraph3.10.

10.2 The Board shall make a payment to Project Co within fifteen (15) Business Days of receipt by the Board of invoices presented to the Board (complete in all material respects) in accordance with paragraph 10.1 of this Section 3 accompanied by the relevant evidence (where applicable) that the relevant part of the Medium Value Change has been carried out.

11 Adjustment to Annual Service Payment

Any adjustment to the Annual Service Payment that is necessary due to the implementation of a Medium Value Change shall be calculated in accordance with Section 6 of this Schedule Part 16 (*Change Protocol*).

12 Due Diligence

12.1 Project Co shall procure that the Senior Lenders shall not:

12.1.1 (in any event) withhold or delay any consents that are required pursuant to the Senior Financing Agreements to a Medium Value Change other than on the basis that the Senior Lenders, acting pursuant to the terms of the Senior Financing Agreements, reasonably believe that one or more of the circumstances set out in paragraphs 1.2.1 to 1.2.6 of this Section 3 apply; or

12.1.2 carry out any due diligence (whether funder, legal, technical, insurance or financial) in relation to the carrying out of any Medium Value Change unless either (i) the Medium Value Change in question would result in an adjustment to the Annual Service Payment that, on a full year basis, is in excess of one percent (1%) of the Annual Service Payment in the relevant Contract Year or (ii) the Senior Lenders, acting pursuant to the terms of the Senior Financing Agreements, reasonably believe that one or more of the circumstances set out in paragraphs 1.2.1 to 1.2.6 of this Section 3 apply.

12.2 Where not prohibited by paragraph 12.1 of this Section 3, the Senior Lenders may carry out legal, financial, insurance and/or technical due diligence on any proposal for a Medium Value Change. In the event that such due diligence is permitted and required, the parties shall agree a budget for the due diligence not exceeding 5% of the overall value of the Medium Value Change in question unless the parties (acting reasonably) agree otherwise. Any costs incurred by Project Co as a result of the Senior Lenders due diligence shall be reimbursed by the Board following agreement

or determination of the contents of the Estimate within ten (10) Business Days of Project Co submitting an invoice for and evidence of such costs, subject to the invoices being in accordance with the agreed budget.

12.3 It is acknowledged that Changes (particularly where they involve a change to the Works or the Facilities) may require authorisation from the insurers under the Required Insurances. Project Co shall notify the relevant insurance broker immediately upon any material Medium Value Change being agreed (materiality being judged in relation to the size and nature of the scope of the Medium Value Change).

13 Project Documentation

13.1 Unless the parties otherwise agree, no changes to the Project Documents shall be made as a result of a Medium Value Change.

13.2 Project Co shall, no later than one (1) month following completion of a Medium Value Change, update the as-built drawings and the operating and maintenance manuals as necessary to reflect the Medium Value Change.

14 Disputes

14.1 Any dispute concerning any matter referred to in this Section 3 may be referred by either party to the Dispute Resolution Procedure.

14.2 Project Co shall not be obliged to implement the Medium Value Change until the dispute has been determined.

14.3 The Board is not entitled to withdraw an Board Change Notice and procure implementation of a Medium Value Change in respect of which there is a dispute that has been referred to the Dispute Resolution Procedure, unless that dispute has been determined in its favour and Project Co has not confirmed to the Board in writing within five (5) Business Days of the date of the determination that it will implement and carry out the Medium Value Change in accordance with the determination.

SECTION 4

HIGH VALUE CHANGES

1 High Value Changes

1.1 If the Board requires a High Value Change it must serve an Board Change Notice on Project Co in accordance with paragraph 2 of this Section 4 (*High Value Changes*).

1.2 Project Co shall be entitled to refuse a High Value Change that:

1.2.1 requires the Works and/or the Services to be performed in a way that 1.2.1infringes any law or is inconsistent with Good Industry Practice;

1.2.2 would cause any Necessary Consent to be revoked (or would require a new consent to be obtained to implement the relevant change in the Works and/or the Services which, after using reasonable efforts, Project Co has been unable to obtain);

1.2.3 would materially and adversely affect Project Co's ability to deliver the Works and/or the Services (except those Works and/or Services which have been specified as requiring to be amended in the High Value Change Notice) in a manner not compensated pursuant to this Section 4 (High Value Changes);

1.2.4 would materially and adversely affect the health and safety of any person;

1.2.5 would, if implemented, materially and adversely change the nature of the Project (including its risk profile);

1.2.6 is the subject of a High Value Change Notice that cannot reasonably be complied with;

1.2.7 the Board does not have the legal power or capacity to require implementation of; or

1.2.8 would if implemented adversely affect the enforceability or priority of the security held by or on behalf of the existing Senior Lenders.

2 High Value Change Notice

2.1 An Board Change Notice for a High Value Change must:

2.1.1 state that is refers to a High Value Change;

2.1.2 set out the maximum available capital and/or revenue the Board is able to commit to that High Value Change (the **"Target Cost"**);

2.1.3 identify any requirements of the Board that must be satisfied as part of the High Value Change Proposal (the **"High Value Change Requirements"**); and

2.1.4 identify how the Board will assess whether the High Value Change Stage 2 Submission offers it value for money.

2.2 The parties may agree written protocols with express reference to this Section 4 (*High Value Changes*) which explain or clarify any aspects of the High Value Change approval procedure set out in this Section 4 (*High Value Changes*) and such protocols shall be read as if incorporated into this Section 4 (*High Value Changes*) (including accelerated procedures with reduced requirements for High Value Changes of relatively low values).

2.3 The parties must:

2.3.1 within five (5) Business Days of receipt by Project Co of any High Value Change Notice, discuss and review the nature of the High Value Change, including a discussion as to which of the items set out in paragraph 3.4 of this Section 4 (*High Value Changes*) are appropriate to be included within the High Value Change Proposal; and

2.3.2 within five (5) Business Days of a High Value Change Proposal becoming a Stage 1 Approved Project, discuss and review the nature of the Stage 1 Approved Project, including a discussion as to which of the items set out in paragraph 4.3 of this Section 4 (*High Value Changes*) are appropriate to be included within the High Value Change Stage 2 Submission.

3 High Value Change Proposal

3.1 Project Co must notify the Board in writing as soon as practicable and in any event within fifteen (15) Business Days after having received the Board Change Notice for a High Value Change if it considers that any of the circumstances set out in paragraphs 1.2.1 to 1.2.8 of this Section 4 (High Value Changes) apply. If no such notice is served, Project Co must (within thirty (30) Business Days after having received the Board Change Notice) either:

3.1.1 submit a High Value Change Proposal to the Board; or

3.1.2 notify the Board as to when the High Value Change Proposal will be provided to it (provided that Project Co shall use all reasonable endeavours to obtain all the information that it requires, expeditiously).

3.2 If Project Co notifies the Board that it considers that one or more of the grounds set out in paragraphs 1.2.1 to 1.2.8 of this Section 4 (*High Value Changes*) apply, then

unless the parties otherwise agree, the Board shall be deemed to have withdrawn the Board Notice of Change if it has not referred the matter to the Dispute Resolution Procedure within twenty (20) Business Days of receipt of Project Co's notice. If the matter is referred to the Dispute Resolution Procedure the time for Project Co to provide the High Value Change Proposal shall be counted from the date of determination of that dispute if the dispute is determined in Project Co's favour.

3.3 If the Board considers that Project Co's proposed time for providing the High Value Change Proposal is not reasonable, the parties shall endeavour to agree the time, failing which the matter may be referred to the Dispute Resolution Procedure.

3.4 Unless Project Co has submitted a High Value Change Proposal in accordance with paragraph 3.1.1 of this Section 4 (*High Value Changes*), Project Co must deliver to the Board the High Value Change Proposal as soon as reasonably practicable and in any event within the time period agreed or determined pursuant to paragraph 3.3 of this Section 4 (*High Value Changes*). Unless the parties agree otherwise, a High Value Change Proposal will contain at least the following information in sufficient detail to enable the Board to make an informed decision under paragraph 3.6 of this Section 4 (*High Value Changes*):

3.4.1 a description of the High Value Change, with evidence of how the High Value Change meets the High Value Change Requirements;

3.4.2 an outline of the proposed building solution and design including an appropriate analysis/risk appraisal of, in each case to the extent relevant (if at all), the preferred investment solution contemplated in terms of new build, refurbishment, whole life costings;

3.4.3 the Change Management Fee for the High Value Change, which shall be a capped fee calculated in accordance with paragraph 10 of this Section 4 (*High Value Changes*);

3.4.4 details of the third party activity likely to be required by Project Co in developing a High Value Change Stage 2 Submission together with a budget (or budgets) for relative Third Party Costs;

3.4.5 an estimated programme for submission of the High Value Change Stage 2 Submission and for the implementation of the High Value Change;

3.4.6 any requirement for relief from compliance with obligations, including the obligations of Project Co to achieve the Actual Completion Date by the Completion Date and meet the requirements set out in the Board's Construction Requirements and/or the Service Level Specification during the implementation of the High Value Change;

3.4.7 any impact on the provision of the Works and/or the Services;

3.4.8 any amendment required to this Agreement and/or any Project Document as a result of the High Value Change;

3.4.9 any Estimated Change in Project Costs that results from the High Value Change;

3.4.10 an outline of how Project Co proposes to finance any Capital Expenditure required for the High Value Change;

3.4.11 Project Co's suggested payment schedule for any Capital Expenditure to be incurred in implementing the Change that is to be borne by the Board, based on milestones where relevant;

3.4.12 any new Necessary Consents and/or any amendments to existing Necessary Consents which are required;

3.4.13 costs and details of any other approvals required or due diligence permitted pursuant to paragraph 14 of this Section 4 (*High Value Changes*);

3.4.14 the proposed method of certification of any construction or operational aspects of the Works or the Services required by the proposed High Value Change if not covered by the procedures specified in Clause 17 (*Pre-Completion Commissioning and Completion*); and

3.4.15 a value for money assessment explaining why Project Co's proposals represent value for money taking into account both the proposed Capital Cost and Whole Life Cost.

3.5 **Liaison between Project Co, the Board and relevant end users**

In developing a High Value Change Proposal Project Co must liaise with the Board and relevant end users (being such persons or organisations as Project Co in consultation with the Board considers appropriate). The Board must provide Project Co with such information about its requirements as Project Co reasonably requires and must assist Project Co in the review of any draft designs in relation to the High Value Change Proposal. Any and all information and other input or feedback provided by the Board to Project Co, unless expressly stated otherwise by the Board, will be without warranty and will be provided without prejudice to the Board's rights under this Section 4 (*High Value Changes*).

3.6 **Consideration of a High Value Change Proposal by the Board**

The Board will consider in good faith each High Value Change Proposal put forward by Project Co and the Board will not unreasonably withhold or delay its consent to a High Value Change Proposal. If, acting reasonably, the Board finds that any material aspects of the High Value Change Proposal are unsatisfactory to it, it shall notify Project Co of the same and offer reasonable assistance to Project Co to enable it to revise and resubmit the High Value Change Proposal as soon as reasonably practicable.

3.7 **Board response to a High Value Change Proposal**

If the Board approves a High Value Change Proposal (including any revised High Value Change Proposal resubmitted pursuant to paragraph 3.5 of this Section 4 (*High Value Changes*)), then it shall be a **"Stage 1 Approved Project"** or be referred to as having received **"Stage 1 Approval"**, as the context requires.

3.8 **Project Co not entitled to dispute non-approval**

Project Co shall not be entitled to refer any dispute concerning the Board's failure to approve a High Value Change Proposal to the Dispute Resolution Procedure.

4 Stage 2 Submission

4.1 **Development of a High Value Change Stage 2 Submission**

4.1.1 Within ten (10) Business Days of a High Value Change Proposal having become a Stage 1 Approved Project, the parties shall seek to agree the time period within which Project Co must develop the Stage 1 Approved Project into a detailed submission (the **"High Value Change Stage 2 Submission"**). If the parties are unable to agree a reasonable time period for such submission any dispute may be referred to the Dispute Resolution Procedure.

4.1.2 Following agreement or determination of what is an appropriate time period for submission by Project Co of the High Value Change Stage 2 Submission pursuant to paragraph 4.1.1 of this Section 4 (*High Value Changes*), Project Co shall proceed regularly and diligently to produce and submit the same to the Board within the agreed or determined time period.

4.2 **Liaison between Project Co, the Board and relevant end users**

In developing a High Value Change Stage 2 Submission Project Co must continue to liaise with the Board and relevant end users (being such persons or organisations as the Board in consultation with Project Co considers appropriate). The Board must provide Project Co with such information as to its requirements as is reasonably necessary to enable Project Co to submit a full and complete High Value Change Stage 2 Submission and any such other information as Project Co may reasonably require and must assist Project Co in the review of any draft designs in relation to the Stage 1 Approved Project and in the development of other aspects of the High Value Change Stage 2 Submission (but not where this would involve the Board incurring additional material expense). Any and all information and other input or feedback provided by the Board to Project Co will be without warranty and will be provided without prejudice to the Board's rights under this Section 4 (*High Value Changes*).

4.3 **Content requirements in relation to a High Value Change Stage 2 Submission**

Save where the parties agree otherwise, in relation to the relevant Stage 1 Approved

Project, Project Co shall procure that a High Value Change Stage 2 Submission includes (but not be limited to):

4.3.1 draft(s) of the relevant Project Document(s) identifying (if relevant) any material changes or amendments proposed in respect of the relevant Stage 1 Approved Project, together with the reasons for any such changes or amendments proposed and including full details of which provisions of the relevant Project Documents will apply to the High Value Change so that it is implemented in equivalent manner and to an equivalent standard as required in respect of the Works and/or Services as appropriate;

4.3.2 detailed design solutions (to RIBA Level D);

4.3.3 appropriate plans and drawings;

4.3.4 relevant detailed planning permissions and any other relevant planning approvals and Necessary Consents (or such lesser confirmation or information in relation to planning as may be agreed with the Board);

4.3.5 a proposed revised Financial Model including the detailed price estimates for the Stage 1 Approved Project;

4.3.6 an explanation (together with appropriate supporting evidence) as to why the High Value Change Stage 2 Submission meets the Approval Criteria (as defined in paragraph 7 of this Section 4 (*High Value Changes*));

4.3.7 confirmation (or details of any requested variations to (with supporting justification)) of the Change Management Fee referred in paragraph 3.4.3 of this Section 4 (*High Value Changes*);

4.3.8 the proposed method of certification of any construction aspects of the High Value Change, if not covered by the procedures specified in Clause 17 (*Pre-Completion Commissioning & Completion*);

4.3.9 a value for money assessment explaining why Project Co's proposals represent value for money taking into account both the proposed Capital Cost and Whole Life Cost;

4.3.10 a timetable and method statement setting out how the relevant High Value Change will be delivered, which shall include (but not be limited to) in so far as relevant:

(a) proposals for the effective management of the building programme;

(b) [project specific information];

(c) an assessment as to the savings (if relevant) to be generated by the High Value Change, particularly on staff costs and lifecycle replacement and maintenance and operation of Services;

(d) details of the Sub-Contractors together with evidence and explanation of the value testing undertaken by Project Co in relation to the High Value Change;

(e) a completed risk register showing the potential risks identified in relation to the delivery of the High Value Change the occurrence of which are capable of adversely affecting the time for completion, cost and/or quality of the project, the probability of such risks occurring and a financial estimate of the most likely consequences of each risk occurring together with the prioritisation of all continuing risks and an action plan in respect of, and risk owners for, all risks prioritised as serious risks;

4.3.11 any surveys and investigations and associated reports that are reasonably necessary to ascertain (in relation to Changes involving the construction of additional buildings) information as to the nature, location and condition of the relevant land (including hydrological, geological, geotechnical and sub-surface conditions) together with information relating to archaeological finds, areas of archaeological, scientific or natural interest and (in relation to the refurbishment of any existing buildings) information on the condition and quality of existing structures and, in particular, the presence of any latent defects.

Co-operation of the Board

4.4 The Board will co-operate with Project Co in relation to any High Value Change Stage 2 Submission being developed by Project Co, including (without limitation) promptly providing:

4.4.1 written confirmation of the Target Cost and/or High Value Change Requirements and any change to such Target Cost and/or High Value Change Requirements; and

4.4.2 any information reasonably required by Project Co to enable it to satisfy the requirements of paragraph 4.3 of this Section 4 (*High Value Changes*).

5 Time periods for approval

5.1 Each High Value Change Proposal and each High Value Change Stage 2 Submission shall be valid for a period of three (3) months from the date of its submission by Project Co.

5.2 If by the end of the three (3) month period referred to in paragraph 5.1 of this Section 4 (*High Value Changes*) the Board has not:

5.2.1 in relation to a High Value Change Proposal, approved or rejected that High

Value Change Proposal in accordance with the procedures set out in this Section 4 (*High Value Changes*):

(a) Project Co shall be entitled to withdraw the High Value Change Proposal; and

(b) Project Co shall not be entitled to any costs relating to the High Value Change Proposal unless the Board has either not responded to the High Value Change Proposal and/or is in material breach of its obligations in paragraph 3 and/or paragraph 4.4 of this Section 4 in which case paragraph 8.5 of this Section 4 (*High Value Changes*) shall apply;

5.2.2 in relation to a High Value Change Stage 2 Submission, approved or rejected that High Value Change Stage 2 Submission in accordance with the procedures set out in this Section 4 (*High Value Changes*) (or has not given any notification of the Board's response to the High Value Change Stage 2 Submission or has given written notice to Project Co withdrawing or cancelling the High Value Change to which the High Value Change Stage 2 Submission relates) then the High Value Change Stage 2 Submission shall be deemed to have been improperly rejected by the Board and paragraph 8.5 shall apply.

6 Changes to the High Value Change Requirements or Approval Criteria

6.1 If the High Value Change Requirements or Approval Criteria are subject to any material variation in relation to a High Value Change by the Board after the High Value Change Proposal has been submitted then:

6.1.1 Project Co and the Board shall negotiate in good faith as to the implications on the High Value Change Proposal or High Value Change Stage 2 Submission (as the case may be) and shall seek to agree changes thereto to accommodate the variation (including any change to the Target Cost and/or to the Change Management Fee);

6.1.2 if agreement has not been reached pursuant to paragraph 6.1.1 of this Section 4 (*High Value Changes*) within twenty (20) Business Days (or such longer period as the parties may agree) then:

(a) Project Co shall be entitled by notice in writing to the Board to withdraw the High Value Change Proposal or the High Value Change Stage 2 Submission (as the case may be) and to be paid the Incurred Change Management Fee with the Calculation Date being the date of the variation notified by the Board; and

(b) the Board shall not be entitled to procure the High Value Change without issuing a new Board Change Notice for the High Value Change and complying with the procedure in this Section 4 (*High Value Changes*) in relation to that High Value Change.

6.1.3 The Board may, at any time, give notice in writing to Project Co that it proposes to cancel a High Value Change without completing the process set out in this Section 4 (*High Value Changes*) in which case the Board must pay Project Co the Incurred Change Management Fee in respect of the cancelled High Value Change with the Calculation Date being the date of such notice.

7 Approval Criteria

7.1 For the purposes of this Section 4 (*High Value Changes*), Approval Criteria means the criteria against which any Stage 1 Approved Project is to be judged by the Board in determining whether it achieves Stage 2 Approval. The criteria are:

7.1.1 whether the costs of the Stage 1 Approved Project are within the Target Cost notified to Project Co by the Board;

7.1.2 whether it has been demonstrated that the Stage 1 Approved Project provides value for money assessed in accordance with the measures identified by the Board in accordance with paragraph 2.1.4 of this Section 4 (*High Value Changes*);

7.1.3 whether the Board, acting reasonably, is satisfied that the High Value Change Stage 2 Submission meets the High Value Change Requirements;

7.1.4 whether any material changes or amendments to the relevant Project Document(s) as detailed pursuant to paragraph 4.3.1 of this Section 4 (*High Value Changes*) are acceptable to the Board, acting reasonably; and

7.1.5 whether the High Value Change Stage 2 Submission contains all the information required pursuant to paragraph 4.3 of this Section 4 (*High Value Changes*) (or as otherwise agreed by the parties).

8 Submission of the High Value Change Stage 2 Submission to the Board and consideration of that submission by the Board

8.1 The Board will consider in good faith High Value Change Stage 2 Submissions submitted by Project Co and the Board will not unreasonably withhold or delay its consent to a High Value Change Stage 2 Submission. The Board is entitled to call for such reasonable information and assistance as it considers appropriate to enable it to decide whether the High Value Change Stage 2 Submission meets the Approval Criteria. Project Co must reply promptly to all such requests for further information and assistance.

8.2 As soon as reasonably practicable after the submission to it of a High Value Change Stage 2 Submission (including any revised High Value Change Stage 2 Submission re-submitted by Project Co) the Board must give written notice of whether it:

8.2.1 approves the relevant Stage 1 Approved Project (in which case the Stage 1

Approved Project will be referred to as having received **"Stage 2 Approval"** or as being a **"Stage 2 Approved Project"** or an "Approved Project" as the context requires); or

8.2.2 rejects the Stage 1 Approved Project:

(a) on the ground that the High Value Change Stage 2 Submission in relation to the relevant Stage 1 Approved Project has failed to meet one or more of the Approval Criteria (except as referred to in paragraph 8.2.2(b)(i) or paragraph 8.2.2(b)(ii)), in which case (subject to resubmission under paragraph8.2.3) paragraph 8.3 shall apply;

(b)

(i) because, as a result of any change to the Target Cost referred to in paragraph2.1.2, the Stage 1 Approved Project is not in fact Affordable despite the High Value Change Stage 2 Submission being within the Target Cost notified by the Board pursuant to paragraph 2.1.2 of this Section 4 (*High Value Changes*); or

(ii) because Project Co has failed to meet one or more of the Approval Criteria and the sole reason for that failure is that any Necessary Consent identified by Project Co (in compliance with paragraph 3.4.12 of this Section 4 (*High Value Changes*)) has not been obtained; or

(iii) otherwise on grounds other than those set out in paragraphs 8.2.2(a), 8.2.2(b)(i) and 8.2.2(b)(ii) of this Section 4 (*High Value Changes*),

in which case paragraph 8.5 shall apply.

8.2.3 If the Board rejects the High Value Change Stage 2 Submission on the grounds set out in paragraph 8.2.2(a) the Board and Project Co will work together to address the reasons for such failure and attempt in good faith to produce a revised High Value Change Stage 2 Submission for Project Co to re-submit to the Board.

8.2.4 If:

(a) a resubmitted High Value Change Stage 2 Submission is rejected by the Board on the ground set out in paragraph 8.2.2(a) (subject to paragraphs 16.3 to 16.4 (if applicable) of this Section 4 (*High Value Changes*)); or

(b) no resubmission of the High Value Change Stage 2 Submission is made within 30 Business Days of the date of the notice of rejection

(or such longer period as the parties may agree),

then the relevant Stage 1 Approved Project shall be treated as having been properly rejected, the provisions of paragraph 8.3 of this Section 4 (*High Value Changes*) shall apply and neither the Board nor Project Co will have any further obligations in relation to the relevant High Value Change referred to in the High Value Change Stage 2 Submission.

If a High Value Change Stage 2 Submission is properly rejected by the Board

8.3 Where this paragraph 8.3 applies (as set out in paragraph8.2.2(a), paragraph 8.2.4 and paragraph 16.4.2 of this Section 4 (*High Value Changes*)) the Board shall not be required to reimburse or compensate Project Co in respect of any costs relating to the High Value Change including the Change Management Fee.

8.4 If:

8.4.1 Project Co fails to provide a response to an Board Change Notice in accordance with paragraph 3.1of this Section 4 (*High Value Changes*); or

8.4.2 (where applicable) Project Co fails to provide a High Value Change Proposal in accordance with paragraph 3.4 of this Section 4 (*High Value Changes*); or

8.4.3 Project Co fails to submit a High Value Change Stage 2 Submission in accordance with paragraph **4.1.2** of Section 4 (*High Value Changes*); or

8.4.4 the Board has validly rejected a High Value Change Stage 2 Submission in accordance with paragraph 8.2 and the matter has not been referred to the Dispute Resolution Procedure or any such dispute has been determined as described in paragraph 16.4.2 of this Section 4 (*High Value Changes*),

then, subject to paragraph 17 of this Section 4 (*High Value Changes*), the Board may notify Project Co that the High Value Change Notice is withdrawn and, following such notification, may procure the implementation of the High Value Change without further recourse to Project Co, but the Board must ensure that the High Value Change is carried out in accordance with Good Industry Practice and to the standards that would have applied to Project Co if it had implemented the High Value Change.

If a High Value Change Stage 2 Submission is improperly rejected by the Board

8.5 Where this paragraph 8.5 applies (as set out in paragraph5.2.1(b), paragraph 5.2.2 paragraph 8.2.2(b) and paragraph16.4.1)), the Incurred Change Management Fee and Third Party Costs incurred by Project Co to prepare the High Value Change Proposal and Stage 2 Submission, which shall be in accordance with the activities and budget referred to in paragraph 3.4.4 of this Section 4 (*High Value Changes*), in relation to the relevant High Value Change will be paid by the Board within ten (10) Business Days of the date on which Project Co receives written notice of the rejection or the date of the deemed rejection (as the case may be) with the date of the rejection or the deemed rejection (as the case may be) being the Calculation Date for the purposes of calculating the amount of the Incurred Change Management Fee (unless a different Calculation Date is expressly stated in this Section 4 (*High Value Changes*)

in relation to the circumstances giving rise to the entitlement of Project Co to be paid the Incurred Change Management Fee).

9 Information and notifications by the Board to Project Co and cooperation of the Board

9.1 The Board must notify Project Co as soon as it becomes aware of any matter which may have a reasonably foreseeable material adverse effect on the viability of any High Value Change including any:

9.1.1 planning issues likely to cause a material delay in the anticipated programme for the High Value Change or material cost increases; and

9.1.2 changes to funding which the Board receives or to the way in which funding may be applied, either or both of which may affect whether a High Value Change is Affordable.

9.2 The Board shall provide reasonable assistance to Project Co in relation to the procurement by Project Co of all relevant Necessary Consents.

10 Change Management Fee

The Change Management Fee is to reimburse Project Co for the time spent by its employees in project managing the development, procurement and implementation of the High Value Change and shall:

10.1 be based on actual time spent (validated by time sheets);

10.2 be calculated at the daily rates as set out in Appendix 2 Part 3 to this Schedule Part 16 (*Change Protocol*), but capped at the sum set out in the High Value Change Proposal;

10.3 not include the time of any person who is not employed by Project Co;

10.4 not include any mark-up or profit or additional overheads;

10.5 be paid in three stages as follows:

10.5.1 on Stage 1 Approval;

10.5.2 on Stage 2 Approval; and

10.5.3 when any works involved in the High Value Change have been completed,

and at each stage Project Co shall charge the Board (subject to the applicable cap) only for the time incurred by its staff up to completion of that stage.

11 Implementation of the High Value Change

Project Co must implement any High Value Change approved by the Board so as to minimise any inconvenience to the Board and to the provision of Board Services and in accordance with the Approved Project. Where an extension of time has been agreed as part of the Stage 2 Approval the Completion Date shall be extended as agreed in the Approved Project.

12 Method of Payment of Board Contribution

12.1 This paragraph 12 shall apply where Capital Expenditure for an Approved Project is to be funded in whole or part by the Board.

12.2 Project Co shall invoice the Board for Capital Expenditure incurred by Project Co to implement a High Value Change that is to be borne by the Board according to the payment schedule set out in the High Value Change Stage 2 Submission as referred to in paragraph 3.4.11 of this Section 4.

12.3 The Board shall make a payment to Project Co within fifteen (15) Business Days of receipt by the Board of invoices presented to the Board (complete in all material respects) in accordance with paragraph 12.2 of this Section 4, accompanied by the relevant evidence (where applicable) that the relevant part of the High Value Change has been carried out.

13 Adjustment to Annual Service Payment

Any adjustment to the Annual Service Payment which is necessary as a result of the implementation of a High Value Change shall be calculated in accordance with Section 6 of this Schedule Part 16 (*Change Protocol*).

14 Due Diligence

14.1 Where the Board is funding the High Value Change, Project Co shall procure that the Senior Lenders shall not withhold or delay any consents which are required pursuant to the Senior Financing Agreements to such High Value Change other than on the basis that the Senior Lenders, acting pursuant to the terms of the Senior Financing Agreements, reasonably believe that one or more of the circumstances set out in paragraphs 1.2.1 to 1.2.8 of this Section 4 (*High Value Changes*) apply.

14.2 Where the Board is not funding the High Value Change, Project Co shall procure that the Senior Lenders do not unreasonably withhold or delay any consents which are required pursuant to the Senior Financing Agreements to such High Value Change other than on the basis that the Senior Lenders, acting pursuant to the terms of the Senior Financing Agreements, reasonably believe that one or more of the circumstances set out in paragraphs 1.2.1 to 1.2.8 of this Section 4 (*High Value*

Changes) apply.

14.3 The parties agree that the Senior Lenders may carry out legal, financial, insurance and technical due diligence on any proposal for a High Value Change. The parties shall agree a budget for the due diligence provided that the costs may not exceed the lower of (i) 3% of the overall value of the High Value Change in question or (ii) fifty thousand pounds (£50,000) unless, in either case, the parties (acting reasonably) agree otherwise. Any costs incurred by Project Co as a result of the Senior Lenders due diligence will be reimbursed by the Board following the conclusion of the process in this Section 4 (*High Value Changes*) within ten (10) Business Days of Project Co submitting an invoice for and evidence of such costs, subject to the invoices being in accordance with the agreed budget.

14.4 It is acknowledged that High Value Changes (particularly where they involve a change to the Works or the Facilities) may require authorisation from the insurers under the Required Insurances. Project Co shall notify the relevant insurance broker immediately upon any material High Value Change being agreed (materiality being judged in relation to the size and nature of the scope of the High Value Change).

14.5 The parties agree that paragraph 14.2 of this Section 4 (*High Value Changes*) of this Schedule Part 16 (*Change Protocol*) does not oblige the Senior Lenders to provide any additional funding for the relevant High Value Change, which shall be in their absolute discretion.

15 Project Documentation

15.1 The only changes to the Project Documents or Ancillary Documents to be made as a result of a High Value Change shall be those identified in the Approved Project (subject to any amendments to it agreed by the parties).

15.2 Project Co shall, on completion of the Change, update the as-built drawings and the operating and maintenance manuals as necessary to reflect the High Value Change.

16 Disputes

16.1 Except as otherwise expressly provided, any dispute concerning any matter referred to in this Section 4 (*High Value Changes*) may be referred by either party to the Dispute Resolution Procedure.

16.2 The Board shall not be entitled to approve a High Value Change Proposal or a High Value Change Stage 2 Submission that is the subject of a dispute until the dispute has been determined.

16.3 If the Board rejects a High Value Change Stage 2 Submission pursuant to the provisions of paragraph 8.2.2(a) of this Section 4, Project Co shall be entitled to refer the matter for consideration under the Dispute Resolution Procedure within ten (10) Business Days after receiving written notice of the Board's decision.

16.4 If, following a referral to the Dispute Resolution Procedure, it is agreed or determined:

16.4.1 that the High Value Change rejected by the Board pursuant to paragraph 8.2.2(a) of this Section 4 met the Approval Criteria the Board shall either:

(a) declare that the relevant High Value Change has received Stage 2 Approval and that High Value Change shall proceed; or

(b) declare that its rejection of the relevant High Value Change be treated as an improper rejection and that the provisions of paragraph 8.2.2(a) of this Section 4 (*High Value Changes*) shall apply.

16.4.2 the High Value Change did not meet the Approval Criteria, save in one of the respects referred to in paragraphs 8.2.2(b)(i) or 8.2.2(b)(ii) the provisions of paragraph 8.3 of this Section 4 (*High Value Changes*) shall apply.

17 The Board is not entitled to withdraw an Board Change Notice and procure implementation of a High Value Change in respect of which there is a dispute that has been referred to the Dispute Resolution Procedure, unless that dispute has been determined in its favour and Project Co has not confirmed to the Board in writing within five (5) Business Days of the date of the determination that it will comply with its obligations under this Section 4 in accordance with the determination.

SECTION 5

PROJECT CO CHANGES

1 If Project Co wishes to introduce a Project Co Change, it shall serve a notice containing the information required pursuant to paragraph 2 of this Section 5 (*Project Co Changes*) (a "*Project Co Notice of Change*") on the Board.

2 A Project Co Notice of Change shall:

2.1 set out the proposed Project Co Change in sufficient detail to enable the Board to evaluate it in full;

2.2 specify Project Co's reasons for proposing Project Co Change;

2.3 indicate any implications of Project Co Change;

2.4 indicate what savings, if any, will be generated by Project Co Change, including:

2.4.1 whether a reduction of the Annual Service Payment is; or

2.4.2 whether such savings will be paid to the Board in a lump sum,

in each case giving details in accordance with paragraph 8 of this Section 5 (*Project Co Changes*);

2.5 indicate whether there are any critical dates by which a decision by the Board is required; and

2.6 request the Board to consult with Project Co with a view to deciding whether to agree to Project Co Change and, if so, what consequential changes the Board requires as a result.

3 The Board shall evaluate Project Co Notice of Change in good faith, taking into account all relevant issues, including whether:

3.1 a revision of the Annual Service Payment will occur;

3.2 the Project Co Change may affect the quality of the Services and/or the Works or the likelihood of successful completion of the Works and/or delivery of the Services (or any of them);

3.3 the Project Co Change will interfere with the relationship of the Board with third parties;

3.4 the financial strength of Project Co is sufficient to perform the Works and/or Services after implementation of Project Co Change;

3.5 the value and/or life expectancy of any of the Facilities will be reduced; or

3.6 the Project Co Change materially affects the risks or costs to which the Board is exposed.

4 As soon as practicable after receiving Project Co Notice of Change, the parties shall meet and discuss the matters referred to in it, including in the case of a Relevant Change in Law those matters referred to in Clause 32.4 of this Agreement. During discussions the Board may propose modifications to, or accept or reject, Project Co Notice of Change.

5 If the Board accepts Project Co Notice of Change (with or without modification) the parties shall consult and agree the remaining details as soon as practicable and upon agreement the Board shall issue a notice confirming Project Co Change which shall set out the agreed Project Co Change and:

5.1 shall enter into any documents to amend this Agreement or any relevant Ancillary Document which are necessary to give effect to Project Co Change;

5.2 subject to paragraph 7 of this Section 5 (*Project Co Changes*), the Annual Service Payment shall be revised in accordance with Section 6 (*Changing the Financial Model*) of this Schedule Part 16(C*hange Protocol*); and

5.3 Project Co Change shall be implemented within the period specified by the Board in its notice of acceptance.

6 If the Board rejects Project Co Notice of Change, it shall not be obliged to give its reasons for such a rejection and Project Co shall not be entitled to reimbursement by the Board of any of its costs involved in the preparation of Project Co Notice of Change.

7 Unless the Board's written acceptance expressly agrees to an increase in the Annual Service Payment or that Project Co should be entitled to relief from any of its obligations, there shall be no increase in the Annual Service Payment or relief granted from any obligations as a result of a Project Co Change.

8 If a Project Co Change causes, or will cause, Project Co's costs or those of a sub-contractor to decrease, there shall be a decrease in the Annual Service Payment such that any cost savings (following deduction of costs reasonably incurred by Project Co in implementing such Project Co Change) will be shared on the basis of fifty per cent (50%) of the saving being retained by Project Co and fifty per cent (50%) of the saving being paid to the Board as a lump sum within ten (10) Business Days of agreement or determination or by way of revision of the Annual Service Payment pursuant to Section 6 (*Changing the Financial Mode*l) of this Schedule Part 16 (*Change Protocol*).

SECTION 6

CHANGING THE FINANCIAL MODEL

Procedure

1 If a Relevant Event occurs, the Financial Model shall be adjusted in accordance with this Section 6 (*Changing the Financial Model*) of this Schedule Part 16 (*Change Protocol*).

Adjusting the Logic or Formulae

2 If it is necessary to make a Logic Adjustment to permit an Input Adjustment or Assumption Adjustment to be made, Project Co shall make such Logic Adjustment only:

2.1 to the extent necessary;

2.2 in accordance with generally accepted accounting principles in the United Kingdom; and

2.3 so as to leave Project Co in no better and no worse a position.

3 In order to demonstrate that the conditions in paragraph 2 are met, Project Co shall prepare:

3.1 a run of the Financial Model before making any Assumption Adjustment or Input Adjustment and immediately prior to making the Logic Adjustment; and

3.2 a run of the Financial Model immediately following the Logic Adjustment which shows that Project Co is in no worse and no better a position following the making of the Logic Adjustment.

Adjusting the Assumptions

4 Subject to paragraph5, Project Co may make an Assumption Adjustment so that the Assumptions in the Financial Model reflect:

4.1 reasonable economic assumptions prevailing at the Adjustment Date; and

4.2 reasonably foreseeable changes in the prospective technical performance of the Project arising as a result of the Relevant Event.

5 In making Assumption Adjustments, Project Co may make such adjustments only insofar as they relate to the Relevant Event, and such adjustments shall not have effect in relation to any period prior to the Adjustment Date, nor in relation to any aspect of the Project other than the Relevant Event in the period following the Adjustment Date.

Adjusting the Inputs

6 Project Co may make Input Adjustments to the extent required to reflect the Estimated

Change in Project Costs arising out of the Relevant Event.

Adjusting the Annual Service Payments

7 In order to calculate the adjustment to be made to the Annual Service Payments, Project Co shall run the Financial Model after making the Logic Adjustments, the Assumption Adjustments and the Input Adjustments relating to the Relevant Event and permitted by this Section 6 (*Changing the Financial Model*) of this Schedule Part 16 (*Change Protocol*) so that, following the Relevant Event, it is in no better and no worse a position than it would have been if no Relevant Event had occurred.

8 The Annual Service Payments shall be adjusted by such amount as leaves Project Co, following the Relevant Event, in no better and no worse a position than it would have been if no Relevant Event had occurred.

No better and no worse

9 Any reference in this Agreement to "no better and no worse" or to leaving Project Co in "no better and no worse a position" shall be construed by reference to Project Co's:

9.1 rights, duties and liabilities under or arising pursuant to performance of this Agreement, the Funding Agreements, the Construction Contract and Service Contracts; and

9.2 ability to perform its obligations and exercise its rights under this Agreement, the Funding Agreements, the Construction Contract and Service Contracts,

so as to ensure that:

9.3 Project Co is left in a position in relation to the Key Ratios which is no better and no worse in the Post-Adjustment Financial Model than it is in the Pre-Adjustment Financial Model; and

9.4 following the making of the Adjustments, the ability of Project Co to comply with this Agreement is not adversely affected or improved as a consequence of the Relevant Event.

APPENDIX 1

Part 1

Catalogue[56]

[56] To be provided by the Board during the Dialogue Period.

APPENDIX 1

Part 2

Small Works and Services Rates[57]

[57] Bid Back Item: Bidders to provide.

APPENDIX 2

Part 1

Unit Cost for Construction or Installation Costs[58]

[58] Bid Back Item: Bidders to provide.

APPENDIX 2

Part 2

Unit Costs for Lifecycle Maintenance[59]

[59] Bid Back Item: Bidders to provide.

APPENDIX 2

Part 3

Consultant, Sub-Contractor or Supplier Fees[60]

[60] Bid Back Item: Bidders to provide.

APPENDIX 2

Part 4

Unit Costs for Labour Rates[61]

[61] Bid Back Item: Bidders to provide.

SCHEDULE PART 17

COMPENSATION ON TERMINATION

SECTION 1

COMPENSATION ON TERMINATION FOR BOARD DEFAULT AND VOLUNTARY TERMINATION

1 Compensation on Termination for the Board Default and Voluntary Termination

1.1 If Project Co terminates this Agreement pursuant to Clause 39 (*Board Events of Default*) or the Board terminates this Agreement pursuant to Clause 42.1 the Board shall pay to Project Co the **"Board Default Termination Sum"** as set out in paragraph 1.2.

1.2 Subject to paragraphs 1.4 to 1.6 below the Board Default Termination Sum shall be an amount equal to the aggregate of:

1.2.1 the Base Senior Debt Termination Amount;

1.2.2 Redundancy Payments and Sub-Contractor Losses; and

1.2.3 the aggregate amount for which the share capital of Project Co and the amounts outstanding under the Subordinated Funding Agreements could have been sold on an open market basis based on the Relevant Assumptions,

LESS, to the extent it is a positive amount, the aggregate of without double counting in relation to the calculation of the Base Senior Debt Termination Amount or the amounts below:

1.2.4 the value of any right of Project Co to receive insurance proceeds (save where such insurance proceeds are held in the Insurance Proceeds Account and are to be applied in accordance with Clause 53.19 of this Agreement in reinstatement, restoration or replacement or, in the case of any third party legal liability or employer's liability, in satisfaction of the claim, demand, proceeding or liability) or sums due and payable from third parties (but only when received from third parties) but excluding any claims under any Sub-Contracts or claims against other third parties which have not been determined or have been determined but not yet paid provided that in such case Project Co shall assign any such rights and claims under the Sub-Contracts or claims against other third parties to the Board and give the Board reasonable assistance in prosecuting such claims;

1.2.5 to the extent realised before the Invoice Date the market value of any other assets and rights of Project Co (other than those transferred to the Board pursuant to this Agreement) less liabilities of Project Co properly incurred in carrying out its obligations under this Agreement as at the Termination Date provided that no account should be taken of any liabilities and obligations of Project Co arising out of:

(a) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in connection with Project Co's obligations in relation to the Project; or

(b) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in the ordinary course of business and on commercial arm's length terms; and

1.2.6 amounts which the Board is entitled to set off pursuant to Clause 46.12 of this Agreement.

1.3 To the extent that such assets and rights referred to in paragraph 1.2.5 above are not realised and applied by the Invoice Date, Project Co shall on payment of the Board Default Termination Sum assign such assets and rights to the Board.

1.4 If the aggregate of the amounts referred to in paragraphs 1.2.1 and 1.2.3 is less than the Revised Senior Debt Termination Amount, then the Board Default Termination Sum shall be increased so that it is equal to the aggregate of the Revised Senior Debt Termination Amount and the amount referred to in paragraph 1.2.2 LESS the amounts referred to in paragraphs 1.2.4 to 1.2.6 above; provided always that (a) the amount referred to in paragraph 1.2.2 shall only be paid to the extent that Project Co has demonstrated to the reasonable satisfaction of the Board that the amount will not be applied (in whole or in part) in payment of any Distribution and (b) if, at the time of termination, there are any Additional Permitted Borrowings outstanding, no Sub-Contractor Losses shall be paid in respect of any Sub Contract in circumstances where there is an event of default under such Sub-Contract which would entitle Project Co to terminate such Sub-Contract.

1.5 If a Distribution is made whilst any Additional Permitted Borrowing is outstanding and Project Co has wilfully, or through gross negligence failed to comply with its obligations under clause 9.4.4(a) of the Funders' Direct Agreement then in addition to the deduction of the Distribution made pursuant to paragraph (v) of the definition of Revised Senior Debt Termination Amount, the Board shall be entitled to set off the value of that Distribution a second time against the Board Default Termination Sum, provided that the amount of the Board Default Termination Sum shall never be less than the Revised Senior Debt Termination Amount.

1.6 If Project Co has wilfully or through gross negligence failed to comply with its obligations under clause 9.4.4(b) of the Funders' Direct Agreement and there has been an overstatement of the cash balances by Project Co as at that date which has caused the Board to reasonably believe that it would be required to pay a lesser sum at the Termination Date than it actually is required to pay under the terms of this Section 1 (*Compensation on Termination for Board Default and Voluntary Termination)*, then the Board Default Termination Sum shall be reduced by the amount of such overstatement (to the extent such overstatement is still applicable at the Termination Date), provided that the amount of the Board Default Termination Sum will never be less than the Revised Senior Debt Termination Amount.

1.7 The Board Default Termination Sum shall be payable in accordance with Section 5 (*General*) of this Schedule Part 17 (*Compensation on Termination*).

SECTION 2

COMPENSATION FOR PROJECT CO DEFAULT

1 If the Board terminates this Agreement pursuant to Clause 40 (*Project Co Events of Default*), with the exception of termination pursuant to Clause 40.1.3(b), the Board shall pay to Project Co such sum as is calculated according to this Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*).

2 RETENDERING ELECTION

2.1 The Board shall be entitled to retender the provision of the Project Operations in accordance with paragraph 3 (*Retendering Procedure*) and the provisions of paragraph 3 (*Retendering Procedure*) shall apply if:

2.2.1 the Board notifies Project Co on or before the date falling twenty (20) Business Days after the Termination Date that it intends to retender; and

2.2.2 there is a Liquid Market; and either

(a) the Senior Funders have not exercised their rights to step-in under clause 5 (*Representative*) of the Funders' Direct Agreement; or

(b) Project Co or the Senior Funders have not procured the transfer of Project Co's rights and liabilities under this Agreement to a Suitable Substitute Contractor and have failed to use all reasonable efforts to do so

but otherwise the Board shall not be entitled to re-tender the provision of the Project Operations and paragraph 4 (*No Retendering Procedure*) shall apply.

3 RETENDERING PROCEDURE

3.1 The objective of the Tender Process shall be to enter into a New Agreement with a Compliant Tenderer.

3.2 The Board shall (subject to any legal requirements preventing it from doing so) use all reasonable endeavours to complete the Tender Process as soon as practicable.

3.3 The Board shall as soon as reasonably practicable notify Project Co of the Qualification Criteria and the other requirements and terms of the Tender Process, including the timing of the Tender Process, and shall act reasonably in setting such requirements and terms.

3.4 Project Co authorises the release of any information by the Board under the Tender Process which would otherwise be prevented under Clause 61 (*Confidentiality*) that is reasonably required as part of the Tender Process.

3.5 For all or any part of a month, falling within the period from the Termination Date to the Compensation Date, the Board shall pay to Project Co:

3.5.1 the Post Termination Service Amount for each completed month, on or before the date falling ten (10) Business Days after the end of that month; and

3.5.2 the Post Termination Service Amount for the period from the end of the last completed month until the Compensation Date, on or before the date falling twenty (20) Business Days after the Compensation Date.

3.6 Project Co may, at its own cost, appoint a person to monitor the Tender Process for the purpose of monitoring and reporting to Project Co and the Senior Funders on the Board's compliance with the Tender Process.

3.7 The Tender Process Monitor shall enter into a confidentiality agreement with the Board in a form acceptable to the Board and shall be entitled to attend all meetings relating to the Tender Process, inspect copies of all the tender documentation and bids and make representations to the Board as to compliance with the Tender Process. The Board shall not be bound to consider or act upon such representations but acknowledges that such representations may be referred to by Project Co in the event that Project Co refers a dispute as to the Adjusted Highest Compliant Tender Price to the Dispute Resolution Procedure. The Tender Process Monitor will not disclose confidential information to Project Co or the Senior Funders or any other person (and shall provide an undertaking to the Board to such effect as a condition of his appointment) but shall be entitled to advise Project Co and the Senior Funders on whether it considers that the Board has acted in accordance with the Tender Process and correctly determined the Adjusted Highest Compliant Tender Price.

3.8 If any Post Termination Service Amount is less than zero then it may be carried forward and may be set off against any future positive Post Termination Service Amounts.

3.9 The Board shall require bidders to bid on the basis that they will receive the benefit of any outstanding claims under material damage insurance policies and the amount (if any) standing to the credit of the Insurance Proceeds Account on the date that the New Agreement is entered into.

3.10 As soon as practicable after tenders have been received, the Board shall (acting reasonably) review and assess the Compliant Tenders and shall notify Project Co of:

3.10.1 the Highest Compliant Tender Price;

3.10.2 the Tender Costs; and

3.10.3 the Adjusted Highest Compliant Tender Price.

3.11 If Project Co refers a dispute relating to the Adjusted Highest Compliant Tender Price

to dispute resolution in accordance with Clause 56 (*Dispute Resolution*), the Board shall irrespective of such dispute be entitled to enter into a New Agreement.

3.12 The Adjusted Highest Compliant Tender Price shall be paid in accordance with Section 5 (*General)* of this Schedule Part 17 (*Compensation on Termination*).

3.13 Subject to paragraphs 1.6 and 1.8 of Section 5 *(General)* of this Schedule Part 17 (*Compensation on Termination*), if the Board has not paid an amount equal to the Adjusted Highest Compliant Tender Price to Project Co on or before the date falling two years after the Termination Date then the following provisions of this paragraph 3 shall not apply to that termination and the provisions of paragraph 4 (*No Retendering Procedure*) shall apply instead.

3.14 The Board may elect at any time prior to the receipt of a Compliant Tender, to follow the no retendering procedure under paragraph 4 (No Retendering Procedure) by notifying Project Co that this election has been made.

3.15 In the event that the Adjusted Highest Compliant Tender Price exceeds the Maximum Termination Amount, the Adjusted Highest Compliant Tender Price shall be deemed to be an amount equal to the Maximum Termination Amount.

4 NO RETENDERING PROCEDURE

4.1 Subject to paragraph4.2, if the provisions of this paragraph 4 (*No Retendering Procedure*) apply Project Co shall not be entitled to receive any Post Termination Service Amount.

4.2 If the Board elects to follow the no retendering procedure in accordance with this paragraph 4 (*No Retendering Procedure*) after it has elected to follow the procedure under paragraph 3 (*Retendering Procedure*), then the Board shall continue to pay to Project Co each Post Termination Service Amount until the Compensation Date, in accordance with paragraph 3(*Retendering Procedure*).

4.3 In agreeing or determining the Estimated Fair Value of the Agreement the parties shall be obliged to follow the principles set out below:

4.3.1 all forecast amounts of revenues and costs should be calculated in nominal terms at current prices, recognising the adjustment for indexation in respect of forecast inflation between the date of calculation and the forecast payment date(s) as set out in this Agreement;

4.3.2 the total of all payments of the full Service Payments forecast to be made from the Termination Date to the Expiry Date shall be calculated and discounted at the Discount Rate;

4.3.3 the total of all costs reasonably forecast to be incurred by the Board as a result of termination shall be calculated and discounted at the Discount Rate and deducted from the payment calculated pursuant to paragraph 4.3.2

above, such costs to include (without double counting):

(a) a reasonable risk assessment of any cost overruns that will arise, whether or not forecast in the relevant base case;

(b) the costs of providing the Services reasonably forecast to be incurred by the Board from the Termination Date to the Expiry Date in providing the Project Operations to the standard required; and

(c) any rectification costs required to deliver the Project Operations to the standard required (including any costs reasonably forecast to be incurred by the Board to complete the Works) and additional operating costs required to restore operating services standards less (to the extent that such sums are included in any calculation of rectification costs for the purposes of this paragraph) the aggregate of:

(i) any insurance proceeds received (or held in the Insurance Proceeds Account) or which will be received pursuant to policies maintained in accordance with Clause 53 (*Insurance*): and

(ii) amounts payable by the Board in respect of Capital Expenditure under this Agreement which have not been paid,

in each case such costs to be forecast at a level that will deliver the Services to the standards required by this Agreement;

4.3.4 the Net Present Value at the Termination Date of all future Surplus Payments forecast in the Financial Model shall be calculated and deducted from the payment calculation pursuant to paragraph 4.3.2 above.

4.4 If the parties cannot agree on the Estimated Fair Value of the Agreement on or before the date falling twenty (20) Business Days after the date on which the Board elected or was required pursuant to paragraph 2 (*Retendering Election*) or paragraph 3 (*Retendering Procedure*) to follow the no retendering procedure in accordance with this paragraph 4 (*No Retendering Procedure*), then the Adjusted Estimated Fair Value of the Agreement shall be determined in accordance with Clause 56 (*Dispute Resolution*).

4.5 The Adjusted Estimated Fair Value of the Agreement shall be paid in accordance with Section 5 (*General*) of this Schedule Part 17 (*Compensation on Termination*).

4.6 In the event that the Adjusted Estimated Fair Value of the Agreement exceeds the Maximum Termination Amount, the Adjusted Estimated Fair Value of the Agreement shall be deemed to be an amount equal to the Maximum Termination Amount.

SECTION 3

COMPENSATION ON TERMINATION FOR FORCE MAJEURE

1 CONSEQUENCES OF TERMINATION FOR FORCE MAJEURE

1.1 If Project Co or the Board terminates this Agreement pursuant to Clause 31.1 (*Force Majeure*) or Clause 53.14.2 the Board shall pay to Project Co the **"Force Majeure Termination Sum"** as set out in paragraph1.2.

1.2 Subject to paragraphs 1.4 to 1.6 below the Force Majeure Termination Sum shall be an amount equal to the aggregate of:

1.2.1 the Base Senior Debt Termination Amount;

1.2.2 Redundancy Payments and Sub-Contractor Losses (but excluding therefrom any claims for loss of profit);

1.2.3 an amount equal to the Subordinated Debt less an amount equal to the aggregate of payments of interest paid on the Subordinated Debt provided that where such figure is a negative number it shall be instead fixed at zero; and

LESS, to the extent it is a positive amount, the aggregate of (without double counting) in relation to the calculation of the Base Senior Debt Termination Amount or the amounts below:

1.2.4 the value of any right of Project Co to receive insurance proceeds (save where such insurance proceeds are held in the Insurance Proceeds Account and are to be applied in accordance with Clause 53.19 of this Agreement in reinstatement, restoration or replacement, or in the case of third party legal liability or employer's liability, in satisfaction of the claim, demand, proceeding or liability) or sums due and payable from third parties (but only when received from third parties) but excluding any claims under any Sub-Contracts or claims against other third parties which have not been determined or have been determined but not yet paid provided that in such case Project Co shall assign any such rights and claims under the Sub-Contracts or claims against other third parties to the Board and give the Board reasonable assistance in prosecuting such claims;

1.2.5 to the extent realised before the Invoice Date, the market value of any other assets and rights of Project Co (other than those transferred to the Board pursuant to this Agreement) less liabilities of Project Co properly incurred in carrying out its obligations under this Agreement as at the Termination Date provided that no account should be taken of any liabilities and obligations of Project Co arising out of:

(a) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in connection with Project Co's obligations in relation to the Project; and

(b) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in the ordinary course of business and on commercial arm's length terms; and

1.2.6 amounts which the Board is entitled to set off pursuant to Clause 46.12 of this Agreement.

1.3 To the extent that such assets and rights referred to in paragraph 1.2.4 above are not realised and applied pursuant to that paragraph Project Co shall on payment of the Force Majeure Termination Sum assign such assets and rights to the Board.

1.4 If the aggregate of the amounts referred to in paragraphs 1.2.1 and 1.2.3 is less than the Revised Senior Debt Termination Amount, then the Force Majeure Termination Sum shall be increased so that it is equal to the aggregate of the Revised Senior Debt Termination Amount and the amount referred to in paragraph 1.2.2 LESS the amounts referred to at paragraphs 1.2.4 to 1.2.6 above; provided always that (a) the amount referred to in paragraph 1.2.2 LESS the amounts referred to at paragraphs 1.2.4 to 1.2.6 above shall only be paid to the extent that Project Co has demonstrated to the reasonable satisfaction of the Board that the amount will not be paid (in whole or in part) in payment of any Distribution and (b) if, at the time of termination, there are any Additional Permitted Borrowings outstanding, no Sub-Contractor Losses shall be paid in respect of any Sub Contract in circumstances where there is an event of default under such Sub-Contract which would entitle Project Co to terminate such Sub-Contract.

1.5 If a Distribution is made whilst any Additional Permitted Borrowing is outstanding and Project Co has wilfully, or through gross negligence failed to comply with its obligations under clause 9.4.4(a) of the Funders' Direct Agreement then in addition to the deduction of the Distribution made pursuant to paragraph (v) of the definition of Revised Senior Debt Termination Amount, the Board shall be entitled to set off the value of that Distribution a second time against the Force Majeure Termination Sum, provided that the amount of the Force Majeure Termination Sum shall never be less than the Revised Senior Debt Termination Amount.

1.6 If Project Co has wilfully or through gross negligence failed to comply with its obligations under clause 9.4.4(b) of the Funders' Direct Agreement and there has been an overstatement of the cash balances by Project Co as at that date which has caused the Board to reasonably believe that it would be required to pay a lesser sum at the Termination Date than it actually is required to pay under the terms of this Section 3 (*Compensation on Termination for Force Majeure*), then the Force Majeure Termination Sum shall be reduced by the amount of such overstatement (to the extent such overstatement is still applicable at the Termination Date), provided that the amount of the Force Majeure Termination Sum will never be less than the Revised Senior Debt Termination Amount.

1.7 The Force Majeure Termination Sum shall be paid in accordance with Section 5 (*General*) of this Schedule Part 17 (*Compensation on Termination*).

SECTION 4

CORRUPT GIFTS AND FRAUD, BREACH OF REFINANCING OR BREACH OF NPD REQUIREMENTS

1 Con sequences of Termination for Corrupt Gifts and Fraud, Breach of Refinancing or Breach of NPD Requirements

1.1 If the Board terminates this Agreement pursuant to Clause 40.1.3, Clause 44.3 or Clause 45 (*Breach of NPD Requirements*) the Board shall pay to Project Co an amount equal to the Revised Senior Debt Termination Amount;

LESS, to the extent it is a positive number, the aggregate of (without double counting):

1.1.1 the value of any right to receive insurance proceeds (save where such insurance proceeds are held in the Insurance Proceeds Account and are to be applied in accordance with Clause 53.19 of this Agreement in reinstatement, restoration or replacement or, in the case of third party legal liability or employer's liability, in satisfaction of the claim, demand, proceeding or liability) or sums due and payable from third parties (but only when received from third parties) but excluding any claims under any Sub-Contracts or claims against other third parties which have not been determined or which have been determined but not paid provided that in such case Project Co shall assign any such rights and claims under the Sub-Contracts or claims against other third parties to the Board and give the Board reasonable assistance in prosecuting such claims; and

1.1.2 to the extent realised before the Invoice Date, the market value of any other assets and rights of Project Co (other than those transferred to the Board pursuant to this Agreement) less liabilities of Project Co properly incurred in carrying out its obligations under this Agreement as at the Termination Date provided that no account should be taken of any liabilities and obligations of Project Co arising out of:

(a) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in connection with Project Co's obligations in relation to the Project; and

(b) agreements or arrangements entered into by Project Co to the extent that such agreements or arrangements were not entered into in the ordinary course of business and on commercial arm's length terms.

1.2 To the extent that such assets and rights referred to in paragraph 1.1.2 above are not realised and applied pursuant to that paragraph, Project Co shall, on payment of the sum referred to in paragraph 1.1 above, assign such assets and rights to the Board.

1.3 The sum referred to in paragraph 1.1 above shall be paid in accordance with Section 5 (*General*) of this Schedule Part 17 (*Compensation on Termination*).

SECTION 5

GENERAL

1 PAYMENT AND INTEREST

Following termination for Board Default, Force Majeure, Corrupt Gifts or Fraud, Breach of Refinancing or Breach of NPD Requirements

1.1 In respect of the termination payments to be made pursuant to any of Section 1 (*Compensation on Termination for Board Default and Voluntary Termination*), Section 3 (*Compensation on Termination for Force Majeure*), or Section 4 (*Corrupt Gifts and Fraud or Breach of Refinancing or Breach of NPD Requirements*) of this Schedule Part 17 (*Compensation on Termination*) as soon as practicable after, and in any event within twenty (20) Business Days of, the Termination Date, Project Co shall give to the Board an invoice for the relevant termination sum and sufficient supporting evidence, reasonably satisfactory to the Board, justifying the amount of the relevant termination sum including a breakdown of each of the individual elements of such sum.

1.2 Subject to paragraph 1.3 below, the Board shall pay to Project Co:

1.2.1 the relevant termination amount within forty (40) Business Days of the Invoice Date; and

1.2.2 interest on the relevant termination amount (or any part of such amount that remains outstanding) from the Termination Date until the date of payment:

(a) at the No Default Interest Rate for the period from (but excluding) the Termination Date to (and including) the date which is forty (40) Business Days after the Invoice Date; and

(b) thereafter, at the Default Interest Rate.

1.3 The Board shall be entitled to pay the amount payable pursuant to Section 3 or Section 4 (as the case may be) of this Schedule Part 17 *(Compensation on Termination)* (**"Termination Sum"**) in four (4) equal instalments by serving notice on Project Co within thirty (30) Business Days of the Invoice Date, in which case the provisions of paragraph 1.4 shall apply.

1.4 In the event that the Board elects to pay the Termination Sum in instalments pursuant to paragraph 1.3 then:

1.4.1 the first such instalment (together with interest thereon calculated pursuant to paragraph 1.4.2 below) shall be due on the first Business Day occurring six (6) months after the date of the Board's notice served pursuant to paragraph 1.3 above and the remaining instalments (together with interest thereon calculated pursuant to paragraph 1.4.2 below) shall be due,

respectively, on the first Business Day occurring twelve (12), eighteen (18) and twenty-four (24) months after the date of such notice; and

1.4.2 the Board shall pay interest on the Termination Sum (or any part of such sum that remains outstanding) from the Termination Date until the date of payment at the No Default Interest Rate.

If the Board fails to make a payment under paragraph 1.4.1 or 1.4.2 above in full within ten (10) Business Days of the due date for payment, or an Adverse Law or a Proposal for an Adverse Law is made then the outstanding amount of the Termination Sum shall be immediately due and payable and, thereafter, the Board shall pay interest on such sum at the Default Interest Rate.

Following Retendering

1.5 Subject to paragraphs 1.6 and 1.8, following a retendering exercise under Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 the Board shall pay to Project Co an amount equal to the Adjusted Highest Compliant Tender Price no later than the date falling twenty (20) Business Days after the later of:

1.5.1 the date on which the Board receives the Market Value of the New Agreement from the New Project Co; and

1.5.2 if Project Co has referred a dispute relating to the Adjusted Highest Compliant Tender Price to dispute resolution pursuant to paragraph 3.11 of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17, the date on which the dispute is finally determined in accordance with Clause 56 (*Dispute Resolution*),

provided that, to avoid doubt, if the dispute referred by Project Co to dispute resolution (pursuant to paragraph 1.5.2 above) concerns only a proportion of the Adjusted Highest Compliant Tender Price then the Board shall pay the undisputed proportion of such sum no later than 20 Business Days after the date referred to in paragraph 1.5.1 above (the "**Undisputed Payment Date**") and the Board shall pay interest to Project Co on any amount of the Adjusted Highest Compliant Tender Price which has been withheld, from the Undisputed Payment Date until the date on which payment is due under paragraph 1.5.2 above at the No Default Interest Rate.

1.6 If the Board has received all bids from bidders under the Tender Process and has received a Compliant Tender but decides not to complete the Tender Process, it shall notify Project Co of this decision and (if the Adjusted Highest Compliant Tender Price is a positive number) pay to Project Co an amount equal to the Adjusted Highest Compliant Tender Price within twenty (20) Business Days of such notification.

1.7 If the Board fails to pay the Adjusted Highest Compliant Tender Price (or any proportion thereof) by the date on which payment is due in accordance with paragraph 1.5 or paragraph 1.6 above, the Board shall pay to Project Co interest on such unpaid amount, which shall accrue on such amount at the Default Interest Rate from (but not including) the date on which payment is due in accordance with paragraph 1.5 or paragraph 1.6 above until such amount is paid.

1.8 If the Adjusted Highest Compliant Tender Price is zero or a negative number then, on entering into the New Agreement with the New Project Co, the Board shall have no obligation to make any payment to Project Co and (if a negative number) an amount equal to the Adjusted Highest Compliant Tender Price shall be due and payable by Project Co to the Board on the date of the New Agreement or (where paragraph 1.6 applies) within twenty (20) Business Days of notification from the Board pursuant to that paragraph.

Following no retendering

1.9 If the Board follows the no retendering procedure set out in paragraph 4 of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 *(Compensation on Termination)* then, subject to paragraph 1.10, the Board shall pay to Project Co an amount equal to the Adjusted Estimated Fair Value of the Agreement no later than the date falling twenty (20) Business Days after the Compensation Date together with interest on such amount calculated in accordance with paragraph 1.2.2 above unless the Board has paid Post Termination Service Amounts pursuant to paragraph 3.5 of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 *(Compensation on Termination)*.

1.10 To the extent that the Adjusted Estimated Fair Value of the Agreement is less than zero, then an amount equal to the Adjusted Estimated Fair Value of the Agreement shall be due and payable by Project Co to the Board on the Compensation Date.

2 Full and Final Settlement

2.1 Any and all sums irrevocably paid by the Board to Project Co under this Schedule Part 17 (*Compensation on Termination*) will be in full and final settlement of each party's rights and claims against the other for breaches and/or termination of this Agreement and any other Project Document whether under contract, delict, restitution or otherwise but without prejudice to:

2.1.1 any antecedent liability of Project Co to the Board which the Board has been unable to set off pursuant to Clause 46.12 of this Agreement;

2.1.2 any antecedent liability of either party to the other that arose prior to the Termination Date (but not from the termination itself) to the extent such liability has not already been taken into account in determining or agreeing the Board Default Termination Sum, Adjusted Highest Compliant Tender Price, or Adjusted Estimated Fair Value of the Agreement, the Force Majeure Termination Sum or the Corrupt Gifts Termination Sum as the case may be; and

2.1.3 any liabilities arising in respect of any breach by either party of their obligations under Clause 47.6 of this Agreement which arises or continues after the Termination Date.

2.2 If either the Adjusted Highest Compliant Tender Price or (as the case may be) the Adjusted Estimated Fair Value of the Agreement is zero or a negative number the Board shall be released from all liability to Project Co for breaches and/or termination

of this Agreement and any other Project Document whether under contract, delict, restitution or otherwise save for:

2.2.1 any antecedent liability of the Board which arose prior to the Termination Date (but not from the termination itself) to the extent such liability has not already been taken into account in determining the Adjusted Highest Compliant Tender Price or the Adjusted Estimated Fair Value of the Agreement (as the case may be); and

2.2.2 any liabilities arising in respect of any breach by either party of their obligations under Clause 47.6 of the Agreement which continues after the Termination Date.

3 Costs

The costs and/or expenses to be taken into account in the calculation of all termination sums due pursuant to this Schedule Part 17 (*Compensation on Termination*) shall only be such costs and/or expenses to the extent that they are reasonable and proper in quantum and shall have been or will be reasonably and properly incurred and shall only be counted once.

4 Undisputed Amounts

If the calculation of any termination amount is disputed then any undisputed element of that amount shall be paid in accordance with this Section 5 (*General*) of this Schedule Part 17 (*Compensation on Termination*) and the disputed element shall be dealt with in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

5 Outstanding Senior Debt Amount

5.1 The Board shall be entitled to rely on the certificate of the [Senior Funders' Agent] as conclusive as to the amount of the Base Senior Debt Termination Amount or Revised Senior Debt Termination Amount (as the case may be) outstanding at any relevant time.

5.2 The receipt by the [Senior Funders' Agent] of the Base Senior Debt Termination Amount or Revised Senior Debt Termination Amount or elements thereof (as appropriate) (as the case may be) (and where appropriate any accrued interest or breakage costs as certified in accordance with paragraph 5.1 above) shall discharge the Board's obligations to pay such sums to Project Co.

SECTION 6

DEFINITIONS

"Adjusted Estimated Fair Value of the Agreement" means, subject to paragraph 4.6 of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*), the Estimated Fair Value of the Agreement adjusted as follows:

(a) where in respect of any month or part of a month from the Termination Date to the Compensation Date the Post Termination Service Amount is a negative number, the aggregate of all such negative Post Termination Service Amounts shall be set against and shall reduce the Estimated Fair Value of the Agreement (whether or not such amounts have been set-off by the Board pursuant to paragraph 3.8 of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*));

and the aggregate of the following amounts shall be deducted from the Estimated Fair Value of the Agreement:

(b) the Post Termination Service Amounts actually paid by the Board to Project Co prior to the Compensation Date;

(c) the Tender Costs; and

(d) amounts that the Board is entitled to set off or deduct;

and the aggregate of the following amounts shall be added to the Estimated Fair Value of the Agreement:

(e) all credit balances on any bank accounts held by or on behalf of Project Co on the date that the Estimated Fair Value of the Agreement is calculated; and

(f) any insurance proceeds and other amounts owing to Project Co (and which

Project Co is entitled to retain), to the extent not included in (e);

to the extent that:

(i) (e) and (f) have not been directly taken into account in calculating the Estimated Fair Value of the Agreement; and

(ii) the Board has received such amounts in accordance with this Agreement or such amounts are standing to the credit of the Insurance Proceeds Account;

"Adjusted Highest Compliant Tender Price" means, subject to paragraph 3.15 of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*), the Highest Compliant Tender Price adjusted as follows:

(a) where in respect of any month or part of a month from the Termination Date to the Compensation Date the Post Termination Service Amount is a negative number, the aggregate of all such negative Post Termination Service Amounts shall be set against and shall reduce such highest tender price (whether or not such amounts have been set-off by the Board pursuant to paragraph 3.8 of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*));

and the aggregate of the following amounts shall be deducted from the Highest Compliant Tender Price:

(b) the Forecast Surpluses;

(c) the Post Termination Service Amounts actually paid by the Board to Project Co prior to the Compensation Date;

(d) the Tender Costs; and

(e) amounts that the Board is entitled to set

off or deduct,

and the aggregate of the following amounts shall be added to such highest tender price:

(f) all credit balances on any bank accounts held by or on behalf of Project Co on the date that the highest priced Compliant Tender is received; and

(g) any insurance proceeds and other amounts owing to Project Co (and which Project Co is entitled to retain), to the extent not included in (d);

to the extent that:

(i) (f) and (g) have not been directly taken into account in that Compliant Tender; and

(ii) the Board has received such amounts in accordance with this Agreement;

"APB Distribution" means, for the period during which the Additional Permitted Borrowing subsists, an amount equal to the aggregate of all Distributions made during that period up to an amount equal to the principal of the Additional Permitted Borrowing on the first day of that period;

"Base Senior Debt Termination Amount" means, subject to Clause 4.3:

(a) all amounts outstanding at the Termination Date, including interest and Default Interest accrued as at that date, from Project Co to the Senior Funders in respect of Permitted Borrowings (other than in respect of Additional Permitted Borrowing); and

(b) all amounts including costs of early termination of interest rate hedging arrangements and other breakage costs, payable by Project Co to the Senior Funders as a result of a prepayment in respect of Permitted Borrowings (other than in respect of Additional Permitted Borrowing), or, in the case of early termination of interest rate hedging arrangements only, as a result of termination of this Agreement, subject to

Project Co and the Senior Funders mitigating all such costs to the extent reasonably possible;(c) less, to the extent it is a positive amount the aggregate of (without double counting in relation to the calculation of the Base Senior Debt Termination Amount or the amounts below)

i. any amounts claimable on or after the Termination Date in respect of Contingent Funding Liabilities;

ii. all amounts including costs of early termination of interest rate hedging arrangements and other breakage costs, payable by the Senior Funders to Project Co as a result of prepayment of amounts outstanding in respect of Permitted Borrowings (other than in respect of Additional Permitted Borrowing), or, in the case of early termination of interest rate hedging arrangements only, as a result of termination of this Agreement;

iii. all other amounts received by the Senior Funders on or after the Termination Date and before the date on which any compensation is payable by the Board to Project Co as a result of enforcing any other rights they may have; and

iv. all credit balances on any bank accounts (but excluding the Insurance Proceeds Account) held by or on behalf of Project Co on the Termination Date;

"Compensation Date" means either:

(a) if paragraph 3 (*Retendering Procedure*) of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*) applies, the earlier of:

i. the date that the New Agreement is entered into; and

ii. the date on which the Board pays the Adjusted Highest Compliant Tender Price to Project Co; or

(b) if paragraph 4 (*No Retendering Procedure*) of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*) applies, the date that the Adjusted Estimated Fair Value of the Agreement has been agreed or determined;

"Compliant Tender" means a tender that meets all of the Qualification Criteria;

"Compliant Tenderer" means a Suitable Substitute Contractor who submits a Compliant Tender;

["Contingent Funding Liabilities" [insert any contingent liabilities of the shareholders in respect of financial obligations owed to the Contractor and/or Funders under the Funding Agreements which are triggered as a result of or in relation to the termination of the Agreement, e.g. guarantees or letters of credit in respect of deferred equity];

"Deemed New Agreement" means an agreement on the same terms and conditions as this Agreement, as at the Termination Date, but with the following amendments:

(a) if this Agreement is terminated prior to the Actual Completion Date, then the Longstop Date shall be extended by a period to allow a New Project Co (had one been appointed) to achieve the Actual Completion prior to the Longstop Date;

(b) any accrued Deductions and/or Warning Notices shall, for the purposes of termination only, and without prejudice to the rights of the Board to make financial deductions, be cancelled; and

(c) the term of such agreement shall be for a period equal to the term from the Termination Date to the Expiry Date;

"Discount Rate" means a discount rate expressed as [(1+ real base case project IRR + Gilt B – Gilt A)* (1 + i) -1]

where:

"**real base case project IRR**" is the real pre-tax [Project IRR] as set out in the Financial Model at Financial Close;

"**i**" is the agreed assumed forecast rate of increase in RPI set out in the Agreement, for the remaining term of the Agreement;

"**Gilt A**" is the real yield to maturity on a benchmark government Gilt instrument of the

same maturity as the average life of the outstanding Senior Debt as shown in the Financial Model at Financial Close; and

"**Gilt B**" is the real yield to maturity on a benchmark government Gilt instrument of the same maturity as the average life of the outstanding Senior Debt as shown in the Financial Model as on the Termination Date;

"Distribution" has the meaning given in Schedule Part 23 *(Refinancing)*;

"Estimated Fair Value of the Agreement" means the amount determined in accordance with paragraph 4 (*No Retendering Procedure*) of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*) that a third party would pay to the Board as the market value of the Deemed New Agreement;

"Fair Value" means the amount at which an asset or liability could be exchanged in an arms length transaction between informed and willing parties, other than in a forced or liquidated sale;

"Forecast Surpluses" means the Net Present Value of the Surplus Payments projected to be made by the Compliant Tenderer, as adjusted by the Board to take account of the Board's assessment of the likelihood of such Surpluses arising;

"Highest Compliant Tender Price" means the price offered by the Compliant Tenderer (if any) with the highest tender price, being the sum of:

(a) the capital sum offered by such Compliant Tenderer; and

(b) the Forecast Surpluses;

and, if no Compliant Tenders are received, means zero;

"Invoice Date" means, in respect of the Board Default Termination Sum, the Force Majeure Termination Sum or the Corrupt Gifts Termination Sum (as appropriate), the date that is the later of:

(a) the date on which the Board receives an invoice from Project Co for the relevant termination sum; and

(b) the date on which the Board receives the supporting evidence required pursuant to paragraph 1.1 *(Payment and Interest)* of Section 5 (*General*) of this Schedule Part 17 (*Compensation on Termination*);

"Liquid Market" means that there are sufficient willing parties (being at least two parties, each of whom is capable of being a Suitable Substitute Contractor) in the market for design, build, finance and maintain contracts or similar contracts for the provision of services (in each case the same as or similar to this Agreement) for the price that is likely to be achieved through a tender to be a reliable indicator of Fair Value provided always that any vehicle controlled and established by the Senior Funders specifically for the purposes of the Project and to which this Agreement may be novated shall be discounted in assessing whether there are sufficient willing parties in the market for such purposes;

"Market Value Availability Deduction Amount" means for any month or part of a month, an amount equal to the availability deduction that was made to the Monthly Service Payment under paragraph 4 (Deductions for Availability Failures) of Section 3 (Deductions from Monthly Service Payments) of Schedule Part 14 (*Payment Mechanism*) in the month immediately preceding the Termination Date, less an amount equal to any availability deduction that was made for a Functional Area which was unavailable at the Termination Date but which has subsequently become available whether as a result of the Board incurring Rectification Costs or otherwise;

"Maximum Service Payment" means one twelfth of the Annual Service Payment ASPn as defined in paragraph 2 (Annual Service Payment) of Section 2 (Calculation of Service Payments) of Schedule Part 14 (*Payment Mechanism*);

"Maximum Termination Amount" means either an amount equal to the aggregate of:

(a) the Base Senior Debt Termination Amount; and

(b) the principal amount of the Subordinated Debt outstanding; and

(c) Redundancy Payments and Sub-Contractor Losses;

OR, if the aggregate of the amounts referred to

in 0 and 0 above is less than the Revised Senior Debt Termination Amount then an amount equal to the aggregate of:

(a) the Revised Senior Debt Termination Amount; and

(b) Redundancy Payments;

"New Agreement" means an agreement on the same terms and conditions as this Agreement at the Termination Date, but with the following amendments:

(a) if this Agreement is terminated prior to the Actual Completion Date, then the Longstop Date shall be extended by a period to allow a New Project Co to achieve the Actual Completion Date prior to the Longstop Date [;

(b) any accrued Deductions and/or Warning Notices shall, for the purposes of termination only, and without prejudice to the rights of the Board to make financial deductions, be cancelled;

(c) the term of such agreement shall be equal to the term from the [Termination Date] until the Expiry Date; and

(d) any other amendments which do not adversely affect the Project Co;

"New Project Co" means the person who has entered or who will enter into the New Agreement with the Board;

"No Default Interest Rate" means [incorporate the non-default interest rate definition in the Senior Funding Agreements];

"Post Termination Service Amount" means for the purposes of paragraph 3 (*Retendering Process*) of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*), for the whole or any part of a month for the period from the Termination Date to the Compensation Date, an amount equal to the Maximum Service Payment (pro rata for part of a month) which would have been payable under this Agreement had this Agreement not been terminated, less an amount equal to the aggregate of (without double counting):

(a) (where relevant) the amount by which the Post Termination Service Amounts for the previous month was less than zero;

(b) the Market Value Availability Deduction Amount for that month; and

(c) the Rectification Costs incurred by the Board in that month;

"Qualification Criteria" means the criteria that the Board requires tenderers to meet as part of the Tender Process, which (subject to compliance with procurement regulations) shall be:

(a) the New Agreement terms;

(b) tenderers should have the financial ability to pay the capital sum tendered for the New Agreement and the financial ability to deliver the Works and/or the Services (as appropriate) for the price tendered;

(c) the tenderers may only bid on the basis of a single capital payment to be made on the date of the New Agreement;

(d) the tenderer is experienced in providing the Services or similar services;

(e) the technical solution proposed by the tenderers is capable of delivery and the tenderer is technically capable of delivery of the Services; and

(f) any other tender criteria agreed by the Board and the Project Co;

"Rectification Costs" means, for the purposes of any Termination Date that occurs after the Actual Completion Date, an amount equal to the reasonable and proper costs incurred by the Board in a particular month or part of a month in ensuring that the Services are available;

"Redundancy Payments" means redundancy payments and other termination payments which are required under Law to be made to employees of Project Co

reasonably and properly incurred by Project Co arising as a direct result of terminating this Agreement (provided that Project Co shall use all reasonable endeavours to mitigate its loss) and provided that in calculating such amount no account should be taken of any liabilities and obligations of Project Co arising out of:

(a) contracts of employment or other agreements or arrangements entered into by Project Co to the extent that such contracts of employment agreements or arrangements were not entered into in connection with the Project; and/or

(b) contracts of employment or other agreements or arrangements entered into by Project Co to the extent that such contracts of employment agreements or arrangements were not entered into in the ordinary course of business and on commercial arm's length terms;

"Relevant Assumptions" means the assumptions that the sale of Project Co is on the basis that there is no default by the Board, that the sale is on a going concern basis, that no restrictions exist on the transfer of share capital, that no Additional Permitted Borrowing has taken place and therefore that the effect of the Additional Permitted Borrowing on the calculation of such amount is disregarded but that otherwise the actual state of affairs of Project Co and the Project is taken into account;

"Revised Senior Debt Termination Amount" means, subject to Clause 4.3 and Refinancing:

(a) all amounts outstanding at the Termination Date, including interest and (other than in respect of Additional Permitted Borrowing) Default Interest accrued as at that date, from Project Co to the Senior Funders in respect of Permitted Borrowing; and

(b) all amounts including costs of early termination of interest rate hedging arrangements and other breakage costs, payable by Project Co to the Senior Funders as a result of a prepayment in respect of Permitted Borrowing, or, in the case of early termination or interest rate hedging arrangements only, as a result of termination of this Agreement subject to Project Co and the Senior Funders mitigating all such costs to the extent

reasonably possible;

less, to the extent it is a positive amount, the aggregate of (without double counting in relation to the calculation of the Revised Senior Debt Termination Amount or the amounts below):

i. all credit balances on any bank accounts (but excluding the Insurance Proceeds Account) held by or on behalf of Project Co on the Termination Date;

ii. any amounts claimable on or after the Termination Date in respect of Contingent Funding Liabilities;

iii. all amounts, including costs of early termination of interest rate hedging arrangements and other breakage costs, payable by the Senior Funders to Project Co as a result of prepayment of amounts outstanding in respect of Permitted Borrowing, or, in the case of early termination of interest rate hedging arrangements only, as a result of termination of this Agreement;

iv. all other amounts received by the Senior Funders on or after the Termination Date and before the date on which any compensation is payable by the Board to Project Co as a result of enforcing any other rights they may have; and

v. all APB Distributions;

"Senior Debt" means the financing provided by the Senior Funders under the Senior Funding Agreements;

"Senior Funding Agreements" has the meaning given in Schedule Part 1 (*Definitions and Interpretation*);

"Sub-Contractor Losses" means:

(a) the amount reasonably and properly payable by Project Co to the Contractor under the terms of the Construction Contract as a direct result of the termination of this Agreement provided that such amount shall be reduced to the extent that Project Co fails to use

all reasonable endeavours to mitigate such amount; and

(b) the amount reasonably and properly payable by Project Co to the Service Providers [under their respective contracts with Project Co] (as the case may be) as a direct result of the termination of this Agreement provided that such amount shall be reduced to the extent that Project Co fails to use all reasonable endeavours to mitigate such amount;

provided that in both cases no account should be taken of any liabilities and obligation of Project Co to the Sub-Contractors arising out of:

i. agreements or arrangements entered into by Project Co and/or the Sub-Contractors to the extent that such agreements or arrangements were not entered into in connection with those parties obligations in relation to the Project; and/or

ii. agreements or arrangements entered into by Project Co and/or the Sub-Contractors to the extent that such agreements or arrangements were not entered into in the ordinary course of business and on commercial arm's length terms;

"Suitable Substitute Contractor" has the meaning given in the Funders' Direct Agreement;

"Subordinated Debt" means [ ];

"Tender Costs" means the reasonable and proper costs of the Board incurred in carrying out the Tender Process and/or in connection with any calculation of the Estimated Fair Value of the Agreement;

"Tender Process" means the process by which the Board requests tenders from any parties interested in entering into a New Agreement, evaluates the responses from those interested parties and enters into a New Agreement with a new service provider, in accordance with paragraph 3 (*Retendering Process*) of Section 2 (*Compensation for Project Co Default*) of this Schedule Part 17 (*Compensation on Termination*);

"Tender Process Monitor" means the person appointed under paragraph 3.6 of Section 2 (*Compensation for Project Co*

	Default) of this Schedule Part 17 (*Compensation on Termination*);
"Termination Sum"	has the meaning given in paragraph 1.3 of Section 5 (*General*) of this Schedule Part 17 (*Compensation on Termination*).

SCHEDULE PART 18

HANDBACK PROCEDURE

1 DEFINITIONS

In this Schedule Part 18 (*Handback Procedure*) and elsewhere in this Agreement (save where Schedule Part 1 (*Definitions and Interpretations*) provides to the contrary) the following words shall have the following meanings:

"Handback Works"	means the maintenance works (if any) required to be carried out in respect of the Facilities in order to procure that they will, on the Expiry Date, satisfy the Handback Requirements;
"Handback Programme"	means the programme for carrying out the Handback Works over the remainder of the Project Term describing the total works to be carried out and the method of carrying out such works during the overall period in which the Handback Works are to be executed;
"Handback Amount"	means the estimated cost of carrying out the Handback Works.

2 On the Expiry Date, each element of the Facilities shall be in a condition which is:

2.1 consistent with due performance by Project Co of the Service Level Specification and Method Statements; and

2.2 consistent with the Facilities and each of the elements of them having been designed and constructed in accordance with the applicable design life requirements set out in paragraph [5.1 of Section C] of the Board's Construction Requirements,

together referred to as (the "**Handback Requirements**").

3 Not less than two (2) years prior to the Expiry Date, Project Co and the Board's Representative shall conduct a joint inspection of the Facilities.

4 Within fifteen (15) Business Days after the completion of the inspection, if it is found that any element of the Facilities is not in a condition consistent with the Handback Requirements, Project Co shall forthwith provide to the Board's Representative in accordance with Schedule Part 8 (*Review Procedure*):

4.1 Project Co's proposal as to the Handback Works;

4.2 Project Co's proposal as to the Handback Programme; and

4.3 Project Co's estimate of the cost of the Handback Amount.

5 The Board's Representative may, within fifteen (15) Business Days after receipt of the details set out in paragraph 4 from Project Co, raise comments in accordance with paragraph 3 of Schedule Part 8 (*Review Procedure*) on Project Co's proposals and estimate referred to in paragraph1above.

6 On agreement, or determination in accordance with Schedule Part 20 (*Dispute* Resolution *Procedure*), of the Handback Works, the Handback Programme and/or the Handback Amount (as the case may be), Project Co shall procure that the Handback Works are carried out in accordance with the Handback Programme so as to meet the Handback Requirements. Project Co shall carry out the Handback Works at its own cost notwithstanding that the actual cost of the Handback Works may be higher than the Handback Amount.

7 From the date of the agreement (or determination in accordance with Schedule Part 20 (*Dispute Resolution Procedure*)) of the matters identified in paragraph 6, the Board shall be entitled to withhold ten per cent (10%) of each subsequent Monthly Service Payment up to the amount of the Handback Amount (the "**Withheld Amount**") and the provisions of paragraph 11 shall apply. The Board shall pay such amounts into an interest bearing account in its own name (the "**Retention Fund**").

8 Project Co may elect by notice in writing to the Board within 10 Business Days of the agreement (or determination in accordance with Schedule Part 20 (*Dispute Resolution Procedure*)) of the matters identified in paragraph 6 to procure the provision of a bond (the **"Handback Bond"**) in favour of the Board (and in a form acceptable to the Board (acting in its sole discretion)) for an amount equal to the Handback Amount and from a bank or insurance company authorised to carry out business in the United Kingdom, and upon delivery of the same to the Board, the provisions of paragraph 7 shall not apply.

9 Project Co shall carry out the Handback Works to the satisfaction of the Board's Representative in accordance with Good Industry Practice and in accordance with the Handback Programme so as to meet the Handback Requirements.

10 Notwithstanding:

10.1 the agreement of the Board's Representative to any Handback Works, the Handback Programme or the Handback Amount;

10.2 the participation of the Board's Representative in any inspection under this Schedule; and/or

10.3 the complete or partial carrying out of the Handback Works

Project Co shall not be relieved or absolved from any obligation to conduct any other inspection or to perform any other works in accordance with the Service Level Specification

and Method Statement.

11 Where this paragraph 11 applies, if and to the extent that Project Co carries out any material part of the Handback Works in accordance with paragraph 6, Project Co may make a claim for payment for the work carried out. Any such claim shall be accompanied by a certificate by Project Co setting out the works performed and the value of such works. The Board shall be entitled to require any reasonable further evidence in respect of the valuation of the works. The Board shall make payment of the amount of a valid claim within [fifteen (15) Business Days of the date of the claim and shall be entitled to withdraw that amount from the Retention Fund. If at any time the amount in the Retention Fund is insufficient to cover the costs claimed by Project Co, the Board shall pay the unpaid portion of such valid claim from any amounts which subsequently stand to the credit of the Retention Fund. In the event that the amount remaining in the Retention Fund on the Expiry Date is insufficient to cover Project Co's costs which have not been paid, Project Co shall bear the balance of such costs itself.

12 Not later than ninety (90) Business Days before the Expiry Date, Project Co and the Board's Representative shall conduct a joint inspection of the Facilities. Such inspection shall confirm whether or not the condition of the Facilities is in accordance with paragraph 1above.

13 On, or within ten (10) Business Days after, the Expiry Date, the Board's Representative shall either:

13.1 issue to Project Co a Handback Certificate and return the Handback Bond or pay any balance standing to the credit of the Retention Fund (as appropriate), to Project Co; or

13.2 notify Project Co of its decision not to issue the Handback Certificate stating the reasons for such decision.

14 Any notice given by the Board's Representative in accordance with paragraph 13.2 shall set out each respect in which the Handback Works have not been completed or the Facilities do not comply with the Handback Requirements and shall state the Board’s Representative's estimate of the cost of procuring that the Facilities comply in all respects with the Handback Requirements.

15 Project Co may, within fifteen (15) Business Days after receipt of the notice given in accordance with paragraph 3.2 by notice to the Board's Representative, object to any matter set out in the Board’s Representative's notice. The notice from Project Co shall give details of the grounds of such objection and shall set out Project Co's proposals in respect of such matters.

16 If no agreement is reached between Project Co and the Board's Representative as to any matter referred to in Project Co's notice given in accordance with paragraph 15 within fifteen (15) Business Days of receipt of that notice by the Board's Representative, then either Project Co or the Board's Representative may refer the matter for determination in accordance with Schedule Part 20 (*Dispute Resolution Procedure*) as to:

16.1 whether the Facilities comply in all respects with the Handback Requirements; and

16.2 the estimated cost of procuring that the Facilities comply in all respects with the Handback Requirements, where the Facilities do not comply in all respects with the Handback Requirements.

17 If it is agreed or determined in accordance with Schedule Part 20 (*Dispute Resolution Procedure*) that the Facilities did not, at the Expiry Date, comply in all respects with the Handback Requirements, Project Co shall pay to the Board an amount equal to the estimated cost of completing such Handback Works (less, where applicable, any amounts standing to the credit of the Retention Fund at that time) or procuring that the Facilities comply in all respects with the Handback Requirements. Such payment shall be made not later than fifteen (15) Business Days after the estimated cost has been agreed or determined and, upon such payment being received by the Board, the Board's Representative shall issue the Handback Certificate and return (where applicable) the Handback Bond to Project Co.

SCHEDULE PART 19

RECORD PROVISIONS

SECTION 1

GENERAL REQUIREMENTS

1 Project Co shall retain and maintain all the records (including superseded records) referred to in Section 2 (*Records to be Kept*) of this Schedule Part 19 (*Record Provisions*) in accordance with this Section 1 (*General Requirements*) of this Schedule Part 19 (*Record Provisions*), the requirements of Good Industry Practice, in chronological order, in a form that is capable of audit and at its own expense. Project Co shall make such records available for inspection to the Board where it has reasonable cause for requiring such records, on giving reasonable notice shall provide such facilities as the Board may reasonably require for its representatives to visit any place where the records are held and examine the records maintained under this Schedule Part 19 (*Record Provisions*).

2 Wherever practical, original records shall be retained and maintained in hard copy form. True copies of the original records may be kept by Project Co where it is not practicable to retain original records.

3 Those records relating to the Project Operations (including the design, construction, development, enhancement and maintenance of the Facilities) shall be retained for the duration of the Agreement.

4 Financial and other records (including without limitation all information provided in support of any Change) shall be retained and maintained by Project Co for a period of at least six (6) years after the end of the Project Term in sufficient detail, in appropriate categories and generally in such a manner to enable Project Co to comply with its obligations under Clause 63.1 and where appropriate to enable the data in such records to be entered into the Financial Model so that the output from the Financial Model (on the basis of such data) can be directly compared with the actual financial cashflow and performance of Project Co.

5 Where Project Co wishes to dispose of any records maintained as provided in this Schedule Part 19 (*Record Provisions*) which are more than fifteen (15) years old, or in respect of which the required period for their retention has expired, then Project Co shall notify the Board and if, within forty (40) Business Days of such notice, the Board elects to receive certain of those records, then Project Co shall deliver up such records to the Board in the manner and at the location as the Board shall reasonably specify, and the costs of retaining those records in safe storage and delivering up the same shall be borne by Project Co.

6 Subject to paragraph 5, for a period of not more than six (6) years following the termination for whatever reason of this Agreement, Project Co shall retain in safe storage all such records as are referred to in Section 2 (Records to be Kept) of this Schedule Part 19 (*Record Provisions*) which were in existence at the date of termination of this Agreement. On the expiry of such period or at the earlier request of the Board (and the Parties acknowledge that such a request shall be deemed to have been issued by the Board upon the occurrence of any of the events set out in Clause 40.1.1 whether prior to or following termination of this Agreement), Project Co shall deliver up all those records (or where those records are required by statute to remain with Project Co or a Contracting Associate of Project Co, copies thereof) to the Board in the manner and at the location as the Board shall reasonably specify. The Board shall make available to Project Co all the records Project Co delivers up pursuant to this paragraph subject to reasonable notice. The costs of retaining

those records in safe storage and delivering up the same shall be borne:

6.1 by Project Co where the termination arises as a result of a Project Co Event of Default; and

6.2 by the Board where the termination arises for any other cause.

7 Without prejudice to the foregoing, Project Co shall provide the Board:

7.1 as soon as they may be available and in any event within sixty (60) Business Days after the end of the first six (6) months of each financial year of Project Co which falls during the Project Term, a copy, certified as a true copy by an officer of Project Co, of its unaudited interim accounts and, if appropriate, of consolidated unaudited interim accounts of Project Co, its Subsidiaries and Holding Company (if any) which would (if Project Co were listed on the London Stock Exchange whether or not it is) be required to be sent to shareholders as at the end of and for each such six (6) month period; and

7.2 as soon as they shall have been sent to its shareholders in order to be laid before an annual general meeting of Project Co but not later than one hundred and thirty (130) Business Days after the end of each accounting reference period of Project Co part or all of which falls in a Contract Year, a copy of Project Co's audited accounts and if appropriate, of the consolidated audited accounts of Project Co and, its Associated Companies (if any), in respect of that period, prepared in accordance with the Companies Act 1985 and generally accepted accounting principles and bases in Scotland, consistently applied together with copies of all related directors' and auditors' reports and all other notices/circulars to shareholders.

8 Project Co shall provide to the Board on 31 March, 30 June, 30 September and 31 December each year a document listing all information provided by it to the Senior Funders during the preceding three month period and, at the request of the Board, provide to the Board any information provided by it to the Senior Funders during the Project Term and any other information relating to the Project that the Board may reasonably require.

9 Any drawings required to be made or supplied pursuant to this Agreement shall be of a size appropriate to show the detail to be depicted clearly without magnifying aids and shall conform to British Standards 1192 or 308 or equivalent as appropriate. Where by prior agreement the Board has agreed to accept microfilm, microfiche or other storage media (which must include secure back up facilities), drawings and other documents shall be made or supplied in such form as has been agreed.

10 Upon termination or expiry of this Agreement, and in the event that the Board wishes to enter into another contract for the operation and management of the Project, Project Co shall (and shall ensure that the sub-contractors will) comply with all reasonable requests of the Board to provide information relating to Project Co's costs of operating and maintaining the Project.

11 Project Co shall use all reasonable endeavours to assist the Board in its preparation of any report and/or return required pursuant to regulations, directions or guidance applicable to the Board (in each case as amended, replaced or consolidated from time to time) or as

required by external agencies including without limitation, reports and returns regarding the physical condition of the Facilities, health and safety, under the Fire (Scotland) Regulations 2005 and the Fire Safety (Scotland) Regulations 2006, relating to environmental health and to comply with The NHS and You or any document replacing it or required by the Scottish Government Health Directorates, the Scottish Government or the Scottish Futures Trust from time to time.

SECTION 2

RECORDS TO BE KEPT

1 The Design Build Finance and Maintain Agreement, its Schedule and the Project Documents including all amendments to such agreements.

2 Project Co shall at all times maintain a full record of particulars of the costs of performing the Project Operations, including those relating to the design, construction, maintenance, operation and finance of the Facilities the Retained Estate Handback Infrastructure. This shall require Project Co to keep (and where appropriate to procure that the sub-contractors shall keep) books of account in accordance with best accountancy practice with respect to the Agreement showing in detail:

2.1 administrative overheads;

2.2 payments to Sub-Contractors and to sub-contractors;

2.3 capital and revenue expenditure;

2.4 such other items as the Board may reasonably require to conduct cost audits for verification of cost expenditure or estimated expenditure, for the purpose of Clause 29.11, Schedule Part 16 (*Change Protocol*) and Clause 32 (*Changes in Law*).

and Project Co shall have (and procure that the sub-contractors shall have) the books of account evidencing the items listed in paragraphs 2.1 to 2.4 available for inspection by the Board (and any expert) upon reasonable notice, and shall present a report of these to the Board as and when requested.

3 All other documents, software or other information expressly referred to in this Agreement.

4 Records relating to the appointment and supersession of the Board's Representative and Project Co's Representative.

5 Project Data.

6 Documents, drawings, design data or submissions raised in accordance with Schedule Part 8 (*Review Procedure*).

7 Documents relating to planning applications, consents, refusals and appeals.

8 Records relating to any specialist or statutory inspections of the Facilities the Retained Estate Handback Infrastructure, including any roadways.

9 Notices, reports, results and certificates relating to completion of the Works and completion of the commissioning activities.

10 All operation and maintenance manuals and a full record of all maintenance procedures carried out during the Project Term.

11 Documents relating to events of Force Majeure, Delay Events and Relief Events and the consequences of the same.

12 All formal notices, reports or submissions made to or received from the Board's Representative in connection with the provision of Services, the Monitoring of Performance or the availability of the Facilities.

13 All certificates, licences, registrations or warranties related to the provision of Services.

14 Documents in support of claims for Services Payments.

15 Documents submitted in accordance with Schedule Part 16 (*Change Protocol*) and all documents provided in support.

16 Documents related to referrals to the Dispute Resolution Procedure.

17 Documents related to change in ownership or any interest in any or all of the shares in Project Co and/or Hold Co.

18 Documents relating to the rescheduling of the indebtedness of Project Co or refinancing of the Project.

19 Tax invoices and records related to Value Added Tax.

20 Financial records, including audited and unaudited accounts of [Hold Co and] Project Co and related reports

21 Records required by Law (including in relation to Health and Safety matters and health and safety files prepared pursuant to CDM Regulations) and all Consents.

22 Documents relating to insurance and insurance claims.

23 All other records, notices or certificates required to be produced and/or maintained by Project Co pursuant to this Agreement or any Project Document.

24 Records of all persons employed by Project Co or its sub-contractors and who are wholly or mainly engaged in the delivery of Services.

SCHEDULE PART 20

DISPUTE RESOLUTION PROCEDURE

1 The procedure set out in this Schedule Part 20 (*Dispute Resolution Procedure*) shall apply to any dispute, claim or difference arising out of or relating to this Agreement ("**Dispute**") except where it has been excluded from this procedure by an express term of this Agreement.

2 This Dispute Resolution Procedure shall not impose any pre-condition on either party or otherwise prevent or delay either party from commencing proceedings in any court of competent jurisdiction in relation to any Dispute in which that party requires either:

2.1 an order (whether interlocutory or final) restraining the other party from doing any act or compelling the other party to do any act; or

2.2 a decree for a liquidated sum to which there is no stateable defence.

3 MEDIATION

3.1 If the parties have been unable to resolve the Dispute within twenty (20) Business Days of the Dispute arising, they may (if both parties so agree) refer the Dispute to mediation on such conditions as may be agreed between the parties. Any mediation shall be completed within thirty (30) Business Days of such referral and any agreement arising therefrom shall be recorded in writing and signed by the parties and shall be binding and final to the extent set out in such agreement unless otherwise agreed.

3.2 For the avoidance of doubt, mediation shall not be a precondition to the commencement of Adjudication or court proceedings.

4 ADJUDICATION

4.1 Either party may at any time (notwithstanding that other dispute resolution procedures are running concurrently) give the other party to the Dispute notice of its intention to refer the Dispute to adjudication (the **"Notice of Adjudication"**). The party giving the Notice of Adjudication (the **"Referring Party"**) shall by the same means of communication send a copy of the Notice of Adjudication to an adjudicator selected in accordance with paragraph 4.2 below or paragraph 4.11 (*Related Adjudicator*) below (the **"Adjudicator"**).

4.2 The Adjudicator nominated to consider a Dispute referred to him shall, subject to paragraph 4.11, be selected on a strictly rotational basis from the relevant panel of adjudicators appointed in accordance with the following:

4.2.1 there shall be two (2) panels of adjudicators, one in respect of construction matters (the "**Construction Panel**") and one in respect of operational and maintenance matters (the "**Operational Panel**"). All the adjudicators on

each panel shall be wholly independent of Project Co, the Board, the relevant Sub-Contractor and any of the major competitors of Project Co or the relevant Sub-Contractor;

4.2.2 the Construction Panel shall be comprised of three (3) adjudicators as identified in paragraph 7 (*Panel Members*);

4.2.3 the Operational Panel shall be comprised of three (3) adjudicators [as identified in paragraph 7 (*Panel Members*);

4.2.4 if any member of either panel resigns during the term of the Agreement, a replacement adjudicator shall be appointed by Project Co and the Board as soon as practicable;

4.2.5 if Project Co and the Board are unable to agree on the identity of the adjudicators to be selected for the panels or any replacement adjudicator, the Chairman (or Vice Chairman) for the time being of the Chartered Institute of Arbitrators Scottish Branch shall appoint such adjudicators(s) within seven (7) days of any application for such appointment by either party;

4.2.6 in the event that the first panel member is unable or unwilling to confirm acceptance of his appointment as Adjudicator or where he fails to respond within two (2) days of the date of the Notice of Adjudication, then the Referring Party shall invite the person next in line to act as Adjudicator. In the event that the second panel member is unwilling or unable to confirm acceptance of his appointment as Adjudicator within four (4) days of the date of the Notice of Adjudication or if the parties disagree as to the relevant panel of adjudicators to be used, then the Referring Party may apply to the Chairman (or Vice Chairman) for the time being of the Chartered Institute of Arbitrators Scottish Branch who shall within seven (7) days of the date of the Notice of Adjudication, nominate an Adjudicator (who shall also within the same period, confirm acceptance of his appointment as Adjudicator) to determine the Dispute described in the Notice of Adjudication;

4.2.7 no member of either panel shall be entitled to accept an appointment to act as Adjudicator unless he is willing also to be appointed as the adjudicator to adjudicate any dispute which:

(a) may arise between Project Co and the Contractor and raises issues which, in the opinion of Project Co, are substantially the same as or connected with the Dispute in relation to which he has been appointed; and/or

(b) may arise between Project Co and the Service Provider and raises issues which, in the opinion of Project Co, are substantially the same as or connected with the Dispute in relation to which he has been appointed; and/or

(c) may arise between Project Co and the Independent Tester and raises

issues which, in the opinion of Project Co, are substantially the same as or connected with the Dispute in relation to which he has been appointed.

4.3 The Referring Party shall, within 7 days of the date of the Notice of Adjudication, serve its statement of case (the **"Referral Notice"**) on the Adjudicator (appointed pursuant to paragraph 4.2) and the other party to the Dispute (the **"Responding Party"**). The Referral Notice shall set out each element of the Referring Party's claim and the relief or remedy sought in sufficient detail so as to enable the Responding Party to understand and, where appropriate, respond to the claim and the Referral Notice shall be accompanied by copies of, or relevant extracts from, this Agreement and such other documents as the Referring Party intends to rely upon. The date of the referral of the Dispute (the **"Referral"**) shall be the date of the Referral Notice.

4.4 Within seven (7) days of appointment in relation to a particular Dispute, the Adjudicator shall establish the procedure and timetable for the adjudication. The Adjudicator shall have absolute discretion as to how to conduct the adjudication, including whether a meeting is necessary. He shall establish the procedure and timetable subject to any limitation within this Agreement. The parties shall comply with any request or direction of the Adjudicator in relation to the adjudication.

4.5 The Adjudicator shall reach a decision on the Dispute within twenty-eight (28) days of the date of the Referral (or such other period as the parties may agree). The Adjudicator may extend the period of 28 days by up to 14 days with the consent of the Referring Party. Unless the parties otherwise agree, the Adjudicator shall give reasons for his decision. Unless and until the Dispute is finally determined by Court proceedings or by an agreement in writing between the parties, the Adjudicator's decision shall be binding on both parties who shall forthwith give effect to the decision.

4.6 The Adjudicator's costs of any reference shall be borne as the Adjudicator shall specify or, in default, equally by the parties. Each party shall bear its own costs arising out of the adjudication, including legal costs and the costs and expenses of any witnesses.

4.7 The Adjudicator shall be deemed not to be an arbitrator but shall render his decision as an adjudicator and the law relating to arbitration shall not apply to the Adjudicator or his determination or the procedure by which he reached his determination.

4.8 The Adjudicator shall act fairly and impartially and may take the initiative in ascertaining the facts and the law. The Adjudicator shall have the power to open up, review and revise any opinion, certificate, instruction, determination or decision of whatever nature given or made under this Agreement.

4.9 All information, data or documentation disclosed or delivered by a party to the Adjudicator in consequence of or in connection with his appointment as Adjudicator shall be treated as confidential. The Adjudicator shall not, save as permitted by Clause 61 (*Confidentiality*), disclose to any person or company any such information, data or documentation and all such information, data or documentation shall remain the property of the party disclosing or delivering the same and all copies shall be returned to such party on completion of the Adjudicator's work.

4.10 The Adjudicator is not liable for anything done or omitted in the discharge or purported discharge of his functions as Adjudicator unless the act or omission is in bad faith. Any employee or agent of the Adjudicator is similarly protected from liability.

4.10A.1 The Adjudicator may on his own initiative or on the request of the Referring Party or Responding Party correct his decision so as to remove a clerical or typographical error arising by accident or omission.

4.10A.2 Any correction of a decision shall be made within 5 days of the date upon which the Adjudicator's decision was delivered to the parties.

4.10A.3 Any correction of a decision shall form part of the decision.

4.11 If any Dispute raises issues which, in the opinion of Project Co, are substantially the same as or connected with issues raised in a dispute or difference arising out of or relating to any other agreement (all such agreements being referred to as the "Related Agreements") between:

4.11.1 Project Co and the Contractor;

4.11.2 Project Co and the Service Provider; and/or,

4.11.3 Project Co and the Independent Tester,

which was or has been referred to adjudication (the "**Related Adjudication**") and an adjudicator has already been appointed (the "**Related Adjudicator**") then Project Co may request that the Dispute be referred to the Related Adjudicator and paragraphs 4.12 to 4.14 shall apply.

4.12 Subject to paragraphs 4.13 and 4.14 below, in the event that a Related Adjudicator orders that a Dispute under this Agreement be consolidated with a Related Adjudication with which he is dealing under the Related Agreement, then:

4.12.1 with effect from the time of such order, the Dispute shall be determined by the Related Adjudicator, who shall become the Adjudicator; and

4.12.2 such order shall be binding on Project Co and the Board and both of them shall acknowledge the appointment of the Related Adjudicator as the adjudicator of the Dispute, with Project Co or the Board (as the case may be) using its best endeavours to procure that the third party who is a party to the Related Agreement shall with effect from the time of such order comply with the requirements of the Related Agreement (including if applicable any requirement or direction of the Related Adjudicator appointed under such Related Agreement) as to the future conduct of the determination of the Dispute and the Related Adjudication; and

4.12.3 notwithstanding paragraph 4.6, Project Co and the Board shall be jointly responsible with the third party who is a party to the Related Agreement for the Related Adjudicator's fees and expenses including those of any specialist consultant appointed under the adjudication procedure in the Related Agreement, in respect of the period in which the Dispute is consolidated with the Related Adjudication pursuant to an order of the Related Adjudicator (**"Consolidated Adjudication Costs"**). Project Co and the Board agree that the Related Adjudicator shall have the discretion to make directions to require Project Co, the Board and the third party who is a party to the Related Agreement to pay or make contribution to the Consolidated Adjudication Costs in different proportions. If no such directions are made, Project Co, the Board and the third party who is a party to the Related Agreement shall bear the Consolidated Adjudication Costs in equal shares, and if Project Co, the Board or the third party has paid more than such equal share, that party or third party shall be entitled to a contribution from the other party, parties or third party, as the case may be.

4.13 Notwithstanding anything to the contrary a Dispute under this Agreement may only be consolidated with a Related Adjudication, if the Related Adjudicator receives particulars of the Dispute within ten (10) days of the referral of the Related Adjudication to the Related Adjudicator under the Related Agreement.

4.14 Where Project Co requests that a Dispute under this Agreement be consolidated (in terms of paragraph 4.11) with a Related Adjudication and heard by the Related Adjudicator, the Dispute may only be consolidated where the Board has previously consented in writing to the identity of the Related Adjudicator appointed in respect of the Related Adjudication. The Board's consent to such request shall not be unreasonably withheld and if the Board refuses to consent, it must give reasons in writing for its refusal. Should the Board fail to respond within two (2) days of receipt of such a request it shall be deemed to have consented to the appointment of the Related Adjudicator. Where the Related Adjudicator is on the Construction Panel or Operational Panel at the time of the Referral then the Board shall be deemed to have consented to the appointment of the Related Adjudicator.

5 COURT PROCEEDINGS

Subject to paragraph 4 (*Adjudication*) all Disputes, to the extent not finally resolved pursuant to the procedures set out in the foregoing provisions of this Schedule Part 20 (*Dispute Resolution Procedure*), shall be referred to the Court of Session in Edinburgh.

6 SUBMISSIONS IN RELATION TO ADJUDICATION

6.1 If any Dispute raises issues which relate to:

6.1.1 any dispute between Project Co and the Contractor arising under the Construction Contract or otherwise affects the relationship or rights of Project Co and/or the Contractor under the Construction Contract (the **"Construction Contract Dispute"**); or

6.1.2 any dispute between Project Co and the Service Provider arising under the Service Contract or otherwise affects the relationship or rights of Project Co

and/or the Service Provider under the Service Contract (the **"Service Contract Dispute"**); or

6.1.3 any dispute between Project Co and the Independent Tester arising under the Independent Tester Contract or otherwise affects the relationship or rights of Project Co and/or the Independent Tester under the Independent Tester Contract (the **"Independent Tester Contract Dispute"**),

then Project Co may include as part of its submissions made to the Adjudicator submissions made by the Contractor or by the Service Provider or the Independent Tester as appropriate.

6.2 Any submissions made by the Contractor or the Service Provider or the Independent Tester shall:

6.2.1 be made within the time limits applicable to the delivery of submissions by Project Co to the Adjudicator; and

6.2.2 concern only those matters which relate to the Dispute between the Board and Project Co arising out of this Agreement or in connection therewith.

6.3 Where the Contractor or the Service Provider or the Independent Tester makes submissions in any reference before the Adjudicator, the Adjudicator's costs of such reference shall be borne as the Adjudicator shall specify, or in default, one-third by the Board and two-thirds by Project Co.

6.4 The Board shall have no liability to the Contractor or the Service Provider or the Independent Tester arising out of or in connection with any decision of the Adjudicator or in respect of the costs of the Contractor or the Service Provider or the Independent Tester in participating in the resolution of any Dispute under this Agreement.

6.5 Project Co shall not allow the Contractor or the Service Provider or the Independent Tester access to any Confidential Information relevant to the issues in dispute between the Board and Project Co save where:

6.5.1 the Confidential Information is relevant also to the issues relating to the Construction Contract Dispute or the Service Contract Dispute or the Independent Tester Contract Dispute as the case may be; and

6.5.2 Project Co has first delivered to the Board a written undertaking from the Contractor and/or the Service Provider and/or the Independent Tester (as appropriate) addressed to the Board that they shall not use any such Confidential Information otherwise than for the purpose of the dispute resolution proceedings under this Agreement and that they shall not disclose such Confidential Information to any third party other than the Adjudicator or the courts or any professional adviser engaged by the Contractor or the Service Provider or Independent Tester (as appropriate) to advise in connection with the Dispute.

7 PANEL MEMBERS

The panel members referred to in paragraph 4 are as follows:

Construction Panel [ ]

Operational Panel [ ]

8 NO LOSS

Where the Board would otherwise be expressly liable to make payment to Project Co of sums which include amounts payable in turn by Project Co to any Sub-Contractor, the Board shall not be entitled to withhold, reduce or avoid any such payment to Project Co in reliance only on the fact that the amount which is due from Project Co to the Sub-Contractor or the entitlement of the Sub-Contractor to payment of such amount as a result of the circumstances giving rise to the Board's obligation to pay, is conditional on the entitlement of, or receipt of payment by Project Co from the Board.

9 CONTINUING OBLIGATIONS

Unless this Agreement has already been repudiated or terminated, the parties shall, (notwithstanding that any Dispute is subject to the Dispute Resolution Procedure set out in this Schedule Part 20 (*Dispute Resolution Procedure*)), continue to carry out their obligations in accordance with this Agreement.

SCHEDULE PART 21

PROJECT CO INFORMATION

SECTION 1

PROJECT CO INFORMATION

Name :

Date of Incorporation :

Registered number :

Registered office :

Directors :

Name	**Address**

Secretary :

Subsidiary undertakings at the date of this Agreement :

Authorised and issued share capital at the date of this Agreement :

Name and address of registered holder	**Number and class held**	**Amount paid up**

Loan Stock at the date of this Agreement issued as follows:

Name and address of registered holder	**Nominal value of Loan stock**

Loan Stock Provisions :

SECTION 2

HOLD CO INFORMATION

Name :

Date of Incorporation :

Registered number :

Registered office :

Directors :

Name	**Address**

Secretary :

Subsidiary undertakings at the date of this Agreement :

Authorised and issued share capital at the date of this Agreement :

Name and address of registered holder	**Number and class held**	**Amount paid up**

Loan Stock at the date of this Agreement issued as follows:

Name and address of registered holder	**Nominal value of Loan stock**

Loan Stock Provisions :

SCHEDULE PART 22

CERTIFICATES

Commencement Certificate

Issued by: **LOTHIAN HEALTH BOARD**

Address: [ ]

Project Co: [**PROJECT CO**]

Address: [ ]

Issue date: ……

Works:

Situated at:

Design Build Finance and Maintain Agreement dated: ……

I/we certify that this is the Commencement Certificate issued pursuant to Clauses 2 (*Execution and Delivery of Documents*) and 9(*Nature of Land Interests*) and Section 2 (*Documents to be delivered by the Board*) of Schedule Part 2 (*Completion Documents*) of the above mentioned Design Build Finance and Maintain Agreement.

To be signed by or for the issuer named above.

Signed .....……..... **LOTHIAN HEALTH BOARD**

Handback Certificate

Issued by: Board's Representative

Address: [ ]

Board: **LOTHIAN HEALTH BOARD**

Address: [ ]

Project Co: [**PROJECT CO**]

Address: [ ]

Issue date: ……

Works :

Situated at :

Design Build Finance and Maintain Agreement dated: ……

I/we certify that the condition of the Facilities is in accordance with paragraph 1 of Schedule Part 18 (*Handback Procedure*) of above mentioned Design Build Finance and Maintain Agreement.

To be signed by or for the issuer named above.

Signed.....
LOTHIAN HEALTH BOARD

***Certificate of Practical Completion**

Issued by: Independent Tester – **[ ]**

Address: [ ]

Project Co: **[PROJECT CO]**

Address: [ ]

Board: **LOTHIAN HEALTH BOARD**

Address: [ ].

Contractor: **[CONTRACTOR]**

Address: [ ]

Issue date: ……

Works:

Situated at:

Design Build Finance and Maintain Agreement dated: ……

Under the terms of the above-mentioned Design Build Finance and Maintain Agreement, I/we certify that the Actual Completion Date of the Works was achieved on [ ].

To be signed by or for the issuer named above.

Signed.....
[INDEPENDENT TESTER]

***Commissioning Completion Certificate**

Issued by: Independent Tester – **[ ]**

Address: [ ]

Hold Co: **[PROJECT CO]**

Address: [ ]

Board: **LOTHIAN HEALTH BOARD**

Address: [ ]

Contractor: **[CONTRACTOR]**

Address: [ ]

Issue date: ……

Works:

Situated at:

Design Build Finance and Maintain Agreement dated: ……

Under the terms of the above-mentioned Design Build Finance and Maintain Agreement,

I/we certify that the Actual Commissioning End Date was achieved on [ ].

To be signed by or for the issuer named above.

Signed....……
[INDEPENDENT TESTER]

SCHEDULE PART 23

REFINANCING

Requirement for Board Consent

1 Project Co shall obtain the Board's prior written consent to any Qualifying Refinancing and both the Board and Project Co shall at all times act in good faith with respect to (a) any Refinancing or (b) any potential or proposed Refinancing under Article [4] of the Articles of Association.

2 The Board shall be entitled to receive:

2.1 a 90% share of the Margin Gain arising from any Qualifying Refinancing which gives rise to a reduction in the Margin from the Margin as shown in the Senior Funding Agreements as at Financial Close (or, in the case of a second or subsequent Qualifying Refinancing, from the Margin as shown in the Senior Funding Agreements as updated at the immediately preceding Qualifying Refinancing);

2.2 a share of any Refinancing Gain (arising otherwise than from a reduction in Margin) from a Qualifying Refinancing, in respect of any Refinancing Gain (when considered in aggregate with all previous Qualifying Refinancings) as follows:

2.2.1 for a Refinancing Gain from £1 up to £1 million, a 50% share;

2.2.2 for a Refinancing Gain from £1 million up to £3 million, a 60% share;

2.2.3 for a Refinancing Gain in excess of £3 million, a 70% share.

3 The Board shall not withhold or delay its consent to a Qualifying Refinancing to obtain a greater share of the Refinancing Gain than that specified in paragraph 2 above.

Project Co Details

4 Project Co shall promptly provide the Board with full details of any proposed Qualifying Refinancing, including a copy of the proposed financial model relating to it (if any) and the basis for the assumptions used in the proposed financial model. The Board shall (before, during and at any time after any Refinancing) have unrestricted rights of audit over any financial model and documentation (including any aspect of the calculation of the Refinancing Gain) used in connection with the Refinancing whether that Refinancing is a Qualifying Refinancing or not.

Receipt of Gain

5 The Board shall have the right to elect to receive its share of any Refinancing Gain (including any Margin Gain) as:

5.1 a single payment being the proportion (corresponding to the proportion of the Refinancing Gain to which the Board is entitled pursuant to paragraph 2 above) of the amount which, but for the provisions of this Schedule Part 23, would otherwise be capable of being released as a Distribution and/or a Surplus Payment on or about the date of the Refinancing;

5.2 a reduction in the Annual Service Payments over the remaining term of this Agreement; or

5.3 a combination of the above.

Method of Calculation

6 The Board and Project Co will negotiate in good faith to agree the basis and method of calculation of the Refinancing Gain (including any Margin Gain) and payment of the Board's share of the Refinancing Gain (taking into account how the Board has elected to receive its share of the Refinancing Gain under paragraph 5 (Receipt of Gain) above). If the parties fail to agree the basis and method of calculation of the Refinancing Gain or the payment of the Board's share, the dispute shall be determined in accordance with Schedule Part 20 (*Dispute Resolution Procedure*).

Costs

7 The Refinancing Gain (including any Margin Gain) shall be calculated after taking into account any breakage costs necessary to facilitate the Qualifying Refinancing together with the reasonable and proper professional costs that each party directly incurs in relation to the Qualifying Refinancing and on the basis that all reasonable and proper professional costs incurred by the Board will be paid to the Board by Project Co within twenty eight (28) days of any Qualifying Refinancing. Such costs shall be allocated pro rata between the Margin Gain (if any) and the remaining Refinancing Gain.

8 Without prejudice to the other provisions of this Schedule Part 23 (*Refinancing*), Project Co shall:

8.1 notify the Board of all Notifiable Financings on becoming aware of the same and again when they are entered into and provide full details of the same; and

8.2 include a provision in the Funding Agreements (other than the Subordinated Funding Agreements) whereby it is entitled to be informed of any proposals which the Senior Funders may have to refinance the Funding Agreements (other than the Subordinated Funding Agreements).

Definitions

In this Schedule Part 23 (*Refinancing*) and elsewhere in this Agreement (save where Schedule Part 1 (*Definitions and Interpretation*) provides to the contrary) the following words and expressions shall have the following meanings:

"Distribution" means:

(a) whether in cash or in kind, any:

i. dividend or other distribution in respect of share capital (whether made validly in accordance with the Articles of Association or otherwise);

ii. reduction of capital, redemption or purchase of shares or any other reorganisation or variation to share capital;

iii. payments under the [Subordinated Funding Agreements] (whether of principal, interest, breakage costs or otherwise);

iv. payment, loan, contractual arrangement or transfer of assets or rights to the extent (in each case) it was put in place after Financial Close and was neither in the ordinary course of business nor on reasonable commercial terms;

v. the receipt of any other benefit which is not received in the ordinary course of business and on reasonable commercial terms; or

(b) the early release of any Contingent Funding Liabilities, the amount of such release being deemed to be a gain for the purposes of any calculation of Refinancing Gain;

"EEA" means from time to time the European Economic Area as created by The Agreement on the European Economic Area 1992 or any successor or replacement body, association, entity or organisation which has assumed either or both the function and responsibilities of the European Economic Area;

"Exempt Refinancing" means:

(a) any Refinancing that was fully taken into account in the calculation of the Annual Service Payments;

(b) a change in taxation or change in accounting treatment;

(c) the exercise of rights, waivers, consents

and similar actions which relate to day to day administrative and supervisory matters, and which are in respect of:

i. breach of representations and warranties or undertakings;

ii. movement of monies between the [Project Accounts] in accordance with the terms of the Senior Funding Agreements as at Financial Close;

iii. late or non-provision of information, consents or licences;

iv. amendments to Sub-Contracts;

v. approval of revised technical and economic assumptions for financial model runs (to the extent required for forecasts under the Funding Agreements);

vi. restrictions imposed by Senior Funders on the dates at which the [Senior Debt] can be advanced to Project Co under the Senior Funding Agreements and/or amounts released from [Escrow Account] during the [Initial Availability Period], each as defined in the Senior Funding Agreements and which are given as a result of any failure by Project Co to ensure that the construction work is performed in accordance with the agreed construction programme and which is notified in writing by Project Co or the Senior Funders to the Board prior to being given;

vii. changes to milestones for drawdown and/or amounts released from the [Escrow Account] during the [Initial Availability Period] set out in the Senior Funding Agreements and which are given as a result of any failure by Project Co to ensure that construction work is performed in accordance with the agreed construction programme and which is notified in writing by Project Co or the Senior Funders to the Board prior to being given;

viii failure by Project Co to obtain any consent by statutory bodies

required by the Senior Funding Agreements; or

ix. voting by Senior Funders and the voting arrangements between the Senior Funders in respect of the levels of approval required by them under the Senior Funding Agreements;

(d) any amendment, variation or supplement of any agreement approved by the Board as part of any Qualifying Change under this Agreement;

(e) any sale of shares in Project Co [or HoldCo] by the shareholders or securitisation of the existing rights and/or interests attaching to shares in Project Co [or HoldCo provided that this paragraph (e) shall, in respect of shares in HoldCo, only apply for so long as HoldCo holds 100% of the issued share capital of Project Co];

(f) any sale or transfer of the Subordinated Funders' existing rights and/or interests under the Subordinated Funding Agreements or securitisation of the Subordinated Funders' existing rights and/or interests under the Subordinated Funding Agreements; or

(g) any Qualifying Bank Transaction;

"Insurance Undertaking" has the meaning given in the rules from time to time of the Financial Services Board;

"Margin" [define by reference to Senior Funding Agreements;]

"Margin Gain" means an amount equal to the lower of:

(a) the Refinancing Gain; and

(b) the higher of:

i. zero; and

ii. D – E;

where:

D = the Net Present Value of the Surplus Payments projected immediately prior to the

Refinancing (taking into account the effect of the change in Margin only in relation to the Refinancing and the senior debt repayment profile immediately prior to the Qualifying Refinancing and using the Financial Model as updated (including as to the performance of the Project) so as to be current immediately prior to the Refinancing but disregarding any Distribution (including any payment under clause [ ] of the [Loan Stock Agreement]) that, but for the Refinancing, would not be made) to be made over the remaining term of this Agreement following the Refinancing; and

E = the Net Present Value of the Surplus Payments projected immediately prior to the Refinancing (but without taking into account the effect of the Refinancing and using the Financial Model as updated (including as to the performance of the Project) so as to be current immediately prior to the Refinancing) to be made over the remaining term of this Agreement following the Refinancing;

"Net Present Value" means the aggregate of the discounted values, calculated as at the relevant date, of each of the relevant projected cashflows, in each case discounted at [7]%;

"Notifiable Financings" means any Refinancing described in paragraphs (a) or (c) of the definition of Refinancing and any other arrangement which has or would have a similar effect or which has or would have the effect of limiting Project Co's or any Associated Company's ability to carry out any such refinancing or other arrangements that would have a similar effect;

"Project Accounts" means accounts referred to in and required to be established under the Senior Funding Agreements;

"Qualifying Bank Transaction" means:

(a) the syndication by a Senior Funder, in the ordinary course of its business, of any of its rights or interests in the Senior Funding Agreements;

(b) the grant by a Senior Funder of any rights of participation, or the disposition by Senior Funder of any of its rights or interests (other than as specified in paragraph (a) above in respect of the Senior Funding Agreements in favour of:

i. any other Senior Funder;

ii. any institution which is recognised

or permitted under the law of any member state of the EEA to carry on the business of a credit institution pursuant to Council Directive 2006/48/EC relating to the taking up and pursuit of business of credit institutions or which is otherwise permitted to accept deposits in the United Kingdom or any other EEA member state;

iii. a local authority or public authority;

iv. a trustee of a charitable trust which has (or has had at any time during the previous two years) assets of at least £10 million (or its equivalent in any other currency at the relevant time);

v. a trustee of an occupational pension scheme or stakeholder pension scheme where the trust has (or has had at any time during the previous two years) at least 50 members and assets under management of at least £10 million (or its equivalent in any other currency at the relevant time);

vi. an EEA or Swiss Insurance Undertaking;

vii a Regulated Collective Investment Scheme;

viii. any Qualifying Institution; or

ix. any other institution in respect of which the prior written consent of the Board has been given; and/or

(c) the grant by a Senior Funder of any other form of benefit or interest in either the Senior Funding Agreements or the revenues or assets of Project Co [or HoldCo], whether by way of security or otherwise, in favour of:

i. any other Senior Funder;

ii. any institution specified in paragraphs bii to bvii above;

iii. any Qualifying Institution; or

iv. any other institution in respect of

which the prior written consent of the Board has been given;

"Qualifying Institutions" means [ ];

"Qualifying Refinancing" means any Refinancing that will give rise to a Refinancing Gain greater than zero that is not an Exempt Refinancing;

"Refinancing" means:

(a) any amendment, variation, novation, supplement or replacement of any Funding Agreement (other than any Subordinated Funding Agreement);

(b) the exercise of any right, or the grant of any waiver or consent, under any Funding Agreement (other than any Subordinated Funding Agreement);

(c) the disposition of any rights or interests in, or the creation of any rights of participation in respect of, the Funding Agreements (other than the Subordinated Funding Agreements) or the creation or granting of any other form of benefit or interest in either the Funders' Agreements (other than the [Subordinated Funding Agreements]) or the contracts, revenues or assets of Project Co whether by way of security or otherwise; or

(d) any other arrangement put in place by Project Co or another person which has an effect which is similar to any of (a)-(c) above or which has the effect of limiting Project Co's or any Associated Company's ability to carry out any of (a)–(c) above;

"Refinancing Gain" means an amount equal to the greater of zero and [(A – B)], where:

A = the Net Present Value of the Surplus Payments projected immediately prior to the Refinancing (taking into account the effect of the Refinancing using the Financial Model as updated (including as to the performance of the Project) so as to be current immediately prior to the Refinancing but disregarding any Distribution (including any payment under clause [ ] of the [Loan Stock Instrument]) that, but for the Refinancing, would not be made) to be made over the remaining term of this Agreement following the Refinancing; and

B = the Net Present Value of the Surplus Payments projected immediately prior to the Refinancing (but without taking into account the effect of the Refinancing and using the Financial Model as updated (including as to the performance of the Project) so as to be current immediately prior to the Refinancing) to be made over the remaining term of this Agreement following the Refinancing;

"Regulated Collective Investment Scheme" has the meaning given in the rules from time to time of the Financial Services Authority;

"Shareholder" means any person from time to time holding share capital in Project Co or [HoldCo].

SCHEDULE PART 24

SECTION 1

NOT USED

SECTION 2

NOT USED

SECTION 3

NOT USED

SCHEDULE PART 25
INSURANCE PROCEEDS ACCOUNT AGREEMENT

AGREEMENT

AMONG:

(1) [PROJECT CO] of [ ] (the "**Issuer**"); and

(2) **LOTHIAN HEALTH BOARD**, a health board constituted in Scotland under the National Health Service (Constitution of Health Boards) (Scotland) Order 1974 (S.I. 1974/267) as amended by the National Health Service (Constitution of Health Boards) (Scotland) Amendment Order 2003 (S.S.I. 2003/217) pursuant to Section 2 of the National Health Service (Scotland) Act 1978 as amended by section 28 of the National Health Service and Community Care Act 1990 and having its principal address at Waverley Gate, 2-4 Waterloo Place, Edinburgh EH1 3EG (the **"Board"**) ;

(3) [FUNDER] of [ ] (the "**Account Bank**"); and

(4) [TRUSTEE] of [ ] (the "**Security Trus**tee").

WHEREAS

(A) The Issuer and the Board have agreed to open an insurance proceeds account in their joint names.

(B) The parties hereto have agreed to set out the terms on which payments may be made to or from that account in this Agreement.

IT IS AGREED as follows:

1 [DEFINITIONS AND INTERPRETATION

"Credit Provider"	means [ ];
"Design, Build, Finance and Maintain Agreement"	means the agreement dated [ ] between the Project Co and the Board in relation to [ ];
"Event of Default"	has the meaning given in Clause 4.5 of this Agreement;
"Qualifying Bank"	means any institutions which is recognised or permitted under the law of any member state of the EEA to carry on the business of a credit institution pursuant to Council Directive 2006/48EC relating to the taking up and pursuit of the business of credit institutions or which is otherwise permitted to accept deposits in the United Kingdom or any other EU member state;
"Senior Finance Documents"	means [ ];
"Security Documents"	means [ ].

1.1 Capitalised terms defined in the Design Build Finance and Maintain Agreement shall have the same meaning in this Agreement.]

1.2 **European Economic and Monetary Union**

In the event that the United Kingdom joins EMU any figures expressed in "£" and "sterling" under this Agreement shall be converted into Euro at the rate for conversion of sterling into Euro established by the Council of the European Union pursuant to the Treaty (including compliance with rules relating to rounding in accordance with European Community regulations) and any reference to a figure in "£" or "Sterling" shall mean that figure adjusted into Euro.

2 INSURANCE PROCEEDS ACCOUNT

Each of the Issuer and the Board (together the "**Account Holders**") hereby appoint [ ] as the Account Bank.

2.1 The Account Bank has opened on its books, at its office at [ ], an account in the joint names of the Account Holders designated the Board Insurance Proceeds Account (the "Account").

2.2 The Account Bank shall, save as otherwise provided herein, maintain the Account in accordance with its usual practices, provided that, in the event of any conflict between the provisions of this Agreement and any applicable mandate, the provisions of this Agreement shall prevail.

2.3 Notwithstanding anything else in this Agreement, no person shall request or require that any withdrawal be made from the Account if it would cause the Account to become overdrawn and to the extent that any withdrawal (if made in full) would cause the Account to become so overdrawn, such withdrawal shall be made in part in as great an amount as possible as will not result in such Account becoming overdrawn.

2.4 Where any withdrawal required under this Agreement cannot be made in its entirety, the Account Bank shall promptly notify both of the Account Holders of that fact and provide details of the payment not made, the date on which it should have been made and the amount unpaid.

2.5 Each amount from time to time standing to the credit of the Account shall bear interest at the rate agreed between the Account Bank and the Account Holders from time to time, such interest to be credited to the Account in respect of which such interest has accrued in accordance with the relevant mandate.

2.6 Subject to and in accordance with the provisions of this Agreement, including without limitation Clause 4 (*General Provisions for the Account*) of this Agreement, the Account Bank agrees that it shall make such payments out of the amount standing to the credit of the Account as may from time to time be requested by the Account Holders jointly subject to the restrictions as contained in this Agreement. Save as otherwise provided in this Agreement, no party shall be entitled to require the Account Bank to make, and the Account Bank shall not make, any payment out of the amount standing to the credit of the Account.

2.7 Subject to Clause 8.6 of this Agreement, the Account Holders shall maintain the

Account with the Account Bank until the termination of the Design Build Finance and Maintain Agreement. If so instructed after the termination of the Design Build Finance and Maintain Agreement, the Account Bank shall, at the sole cost and expense of the Issuer, terminate the Account in accordance with the relevant instructions and pay any amount standing to the credit of such accounts as the Account Holders may elect in accordance with Clause 4.1 of this Agreement.

3 RECEIPTS AND PAYMENTS

3.1 The Account may only be used in accordance with the terms of and for the purposes set out in this Clause 3 (*Receipts and Payments*).

3.2 The Account shall be used for receiving, to the extent required by Clause 53 (*Insurance*) of the Design Build Finance and Maintain Agreement, the proceeds of all Insurances (as defined in the Design Build Finance and Maintain Agreement).

3.3 Subject to restrictions set out in this Agreement, the Account shall only be used for applying the proceeds of the Board Insurances in accordance with Clause 53 (*Insurance*) of the Design Build Finance and Maintain Agreement either directly or indirectly by way of the reimbursement to the Issuer of costs or expenses incurred or monies paid by it (or on its behalf) in or towards satisfaction of the reinstatement restoration or replacement requirements of that Clause 53 (*Insurance*). In the event that any amount standing to the credit of the Account is not so required to be applied, such amount shall (subject to Clause 4.3 and 4.5 below) be paid by the Account Bank to the Receipts Account, or as otherwise instructed by the Security Trustee pursuant to Clause 4.5 below.

4 GENERAL PROVISIONS FOR THE ACCOUNT

4.1 Subject to Clauses 4.3 and 4.5 below, and provided that:

4.1.1 the Account Bank has received notice in writing from two signatories, one of which shall be an authorised signatory of the Issuer and the other an authorised signatory of the Board, as listed under the applicable mandate that such payment is authorised under this Agreement; and

4.1.2 no notice has been given to the Account Bank by the Credit Provider prior to the making of such payment or transfer of an Event of Default which is subsisting and the Account Bank has no actual notice that an Event of Default will occur as a result of the making of any such payment or transfer,

the Account Bank agrees that it shall only make payments or transfers from the Account on the request of the Account Holders.

4.2 The Board undertakes to provide notice to the Account Bank as prescribed in Clause 4.1.1 for, the purposes of applying any part of the balance standing to the credit of the Account in accordance with Clause 3.3 of this Agreement.

Each of the Account Bank and the Issuer shall be entitled to treat any act of the authorised signatory of the Board as being expressly authorised by the Board and neither the Account Bank nor the Issuer shall be required to determine whether an express authority has in fact been given.

4.3 No payments or transfers from the Account shall be made after an Event of Default which is continuing until the Credit Provider has confirmed to the Account Bank that such payment or transfer may be made except as expressly permitted under this Agreement. The Account Bank shall not be under any obligation to investigate the compliance of any payment with this Agreement.

4.4 All amounts withdrawn from the Account for transfer to another account or for application in or towards making a specific payment or meeting a specific liability shall be transferred to that account or applied in or towards making that payment or meeting that liability, and for no other purpose.

4.5 Notwithstanding any other provision of this Agreement, at any time following the occurrence of any Event of Default (as defined in Schedule Part 4 (*Funders' Direct Agreement*) of the Design Build Finance and Maintain Agreement) which is continuing and has not been waived or remedied, the Security Trustee may at any time give notice to the Account Bank instructing it not to act on the instructions of or at the request of the Issuer in relation to any sums at any such time standing to the credit of the Account. Without prejudice to the foregoing, the Account Bank agrees that it shall pay any amount standing to the credit of the Account and payable to the Issuer in accordance with Clause 3.3 of this Agreement to such a bank account as the Security Trustee shall direct following the occurrence of any Event of Default. The Account Bank agrees that it shall not so act and shall act on the instructions of the Security Trustee in place of the Issuer.

4.6 In establishing the balance standing to the credit of the Account at any time, the Account Bank may take into account credits to and withdrawals from such Account which are to be made on such day.

5 QUALIFYING BANK

If at any time the Account Bank ceases to be a Qualifying Bank, the Account Holders shall promptly open or cause to be opened a new account with a Qualifying Bank on the same terms as the Account and the Account Holders shall take all such action as may be required to open the new account.

6 CHARGES

The charges of the Account Bank (if any) for the operation of the Account shall be for the account of the Account Holders in equal amounts and shall be debited from the balance standing to the credit of the Account as from time to time agreed between the Account Bank, the Board and the Issuer.

7 MANDATES

Each of the Account Holders will deliver to the Account Bank on or prior to the date hereof the applicable mandate together with authorised signature lists for both the Issuer and the Board.

8 THE ACCOUNT BANK

8.1 The Account Bank may:

8.1.1 engage and pay reasonable fees for the advice or services of any lawyers, accountants or other experts whose advice or services may to it seem necessary, expedient or desirable and rely upon any advice so obtained;

8.1.2 rely upon any communication or document believed by it to be genuine and, in particular, rely upon any notice, request or other communication of the Account Holders for the purposes of this Agreement if such notice, request or other communication purports to be signed or sent by or on behalf of an authorised signatory of the Account Holders;

8.1.3 assume that no Event of Default has occurred unless it has actual notice to the contrary; and

8.1.4 assume that all conditions for the making of any payment out of the amount standing to the credit of the Account which is specified in the Design Build Finance and Maintain Agreement or any of the Senior Finance Documents has been satisfied, unless it has actual notice to the contrary.

8.2 Notwithstanding anything to the contrary expressed or implied herein and subject to Clause 2 (*Insurance Proceeds Account*) of this Agreement (Insurance Proceeds Account), the Account Bank shall not:

8.2.1 be bound to enquire as to the occurrence or otherwise of an Event of Default or be affected by notice of any of the same except by reason of and to the extent expressly provided in this Agreement;

8.2.2 be bound to account to any other party hereto for any sum or the profit element of any sum received by it for its own account;

8.2.3 save as provided in this Agreement be bound to disclose to any other person any information relating to any other party hereto;

8.2.4 be under any fiduciary duty towards any other party hereto or under any obligations other than those for which express provision is made in this Agreement;

8.2.5 have any responsibility to ensure that the information set out in any instructions received by it hereunder are correct or to check or enquire as to or otherwise be affected by whether any condition has been or will be met or

fulfilled or any instruction is properly given on behalf of the person from whom it purports to be given or any instruction is given properly other than to exercise the bankers duty of care; or

8.2.6 have any responsibility to any party if any instruction which should be given by the Account Holders to the Account Bank under or in connection with this Agreement is for any reason not received by the Account Bank or is not made at the time it should be made.

8.3 The Account Bank does not have and does not accept any responsibility for the accuracy and/or completeness of any information (other than statements provided in accordance with Clause 9.2 of this Agreement (*Acknowledgements by the Account Bank*)) and the Account Bank shall not be under any liability as a result of taking or omitting to take any action in relation to the Account, save in the case of negligence or wilful misconduct or breach of its obligations under this Agreement.

8.4 Each of the other parties hereto agrees that it will not assert or seek to assert against any director, officer or employee of the Account Bank any claim it might have against the Account Bank in respect of the matters referred to in Clause 8.3 above.

8.5 The Account Bank may accept deposits from, lend money to, invest in and generally engage in any kind of banking or other business with the Account Holders, the Shareholders and any other party to any of the Project Documents.

8.6 The Account Bank may, at any time, (without assigning any reason therefor) notify the Account Holders in writing that it wishes to cease to be a party hereto as Account Bank (a **"cessation notice"**). Upon receipt of a cessation notice the Account Holders may nominate a Qualifying Bank as a successor to the Account Bank (a **"successor Account Bank"**). If no such nomination is made before the date specified in the cessation notice as being the date on which the Account Bank wishes to cease to be a party hereto (the "cessation date") (which date shall be a Business Day falling not less than thirty (30) days after the date of delivery of the cessation notice to the Account Holders) then the Account Bank may nominate a Qualifying Bank as successor Account Bank itself.

8.7 If a successor Account Bank is nominated under the provisions of Clause 8.6 above, then on the cessation date, provided the successor Account Bank has executed and delivered to the Account Holders a deed of novation in such form as the Account Holders may require undertaking to become a party to and bound by the terms and conditions of this Agreement and to become a party to such other documents as may be required by the Security Trustee in order to perfect the security created by the Senior Finance Documents:

8.7.1 the successor Account Bank shall open on its books at its principal office an account equivalent to that described in Clause 2 of this Agreement and any amounts standing to the credit of the Account shall be transferred to the corresponding one of such account;

8.7.2 any reference in the Design Build Finance and Maintain Agreement or any Senior Finance Document to the Account shall be deemed to refer to the corresponding account opened pursuant to Clause 8.7.1;

8.7.3 the Account Bank shall cease to be a party hereto as Account Bank and shall cease to have any obligation hereunder in such capacity (but without prejudice to any accrued liabilities under this Agreement and its obligations under this Clause 8 (*The Account Bank*)) (but shall remain entitled to the benefit of the provisions of this Clause 8 (*The Account Bank*)); and

8.7.4 the successor Account Bank and each of the other parties hereto shall have the same rights and obligations amongst themselves as they would have had if such successor Account Bank had been an original party hereto as Account Bank.

9 ACKNOWLEDGEMENTS BY THE ACCOUNT BANK

9.1 Notwithstanding anything to the contrary in any applicable mandate, the Account Bank hereby waives so far as it may validly and lawfully do so any right it has or may hereafter acquire to combine, consolidate or merge the Account with any other account of the Account Bank, Account Holders or the Security Trustee or any other person or with any liabilities of Account Holders or the Security Trustee or any other person to the Account Bank. In addition, the Account Bank agrees so far as it may validly and lawfully do so that it may not set off, combine, withhold or transfer any sum standing to the credit of the Account in or towards satisfaction of any liabilities to the Account Bank of the Account Holders, the Security Trustee or any other person.

9.2 After the date hereof and until the Account Bank has been notified by the Account Holders of the termination of the Design Build Finance and Maintain Agreement or until the Account Bank ceases to be a party to this Agreement pursuant to the provisions of Clause 8.7 above, the Account Bank shall provide each of the Account Holders and the Security Trustee with statements in respect of the Account, such statement to be supplied in accordance with any reasonable request therefore by the Account Holders.

10 ASSIGNATION

The Account Holders may not assign any of their rights under this Agreement or in relation to the Account otherwise than pursuant to the Security Documents or as permitted under the Design Build Finance and Maintain Agreement. The Security Trustee may assign its rights under this Agreement to a successor Security Trustee appointed in accordance with the Security Trust and Intercreditor Deed and shall promptly give notice of any such assignation to the Account Bank. The Account Bank shall not be entitled to novate (except in accordance with Clause 8.7 above) or assign all or any part of its rights under this Agreement.

11 SECURITY TRUSTEE

The Security Trustee is party hereto solely for the purpose of receiving the benefits and exercising the rights specifically allocated to it under the terms of this Agreement.

12 FURTHER ASSURANCE

The parties hereto agree that they will co-operate fully to do all such further acts and things and execute any further documents as may be necessary or reasonably desirable to give full effect to the arrangements contemplated by this Agreement, subject to any such party being reimbursed to its satisfaction for any costs, expenses (including VAT) liabilities or fees reasonably incurred by it in the negotiation, preparation or execution of any such further documents.

13 AMENDMENTS

The provisions of this Agreement may not be amended (otherwise than in accordance with the terms hereof) except by written agreement between all the parties hereto.

14 NOTICES

14.1 Each communication to be made hereunder shall be made in writing and, unless otherwise stated, may be made by facsimile or letter delivered by registered post or courier.

14.2 Any communication or document to be made or delivered by one person to another pursuant to or in connection with this Agreement shall (unless that other person has by ten days' written notice to the other specified another address) be made or delivered to that other person at the address set out below identified with its signature below or identified with its signature in any deed of novation and shall be deemed to have been made or delivered:

14.2.1 (in the case of any communication made by letter) when delivered to that address; or

14.2.2 (in the case of any communication by facsimile) when transmission of such facsimile communication has been received in legible form and receipt has been confirmed, and communication verified, by telephone,

provided that (a) if such communication or document would otherwise be deemed to have been received on a day which is not a Business Day it shall be deemed to have been received on the next subsequent Business Day, (b) if any communication is made or document is delivered to the Security Trustee, such communication or document shall be effective only if the same is expressly marked for the attention of the officer identified the Security Trustee, as the case may be, below (or such other officer as the Credit Provider or the Security Trustee, as the case may be, shall from time to time specify for this purpose) and (c) if any communication or document is made or delivered to the Account Bank or the Security Trustee, such communication or document shall be effective only when received by the Account Bank, or the Security Trustee.

14.3 Notice to the Account Bank at any other office than the address shown beside its execution of this Agreement or such substitute address notified in accordance with Clause 14.2 above shall not constitute notice to the Account Bank unless agreed in writing by the Account Bank by reference to this Agreement.

15 MISCELLANEOUS

The parties hereto each acknowledge that the Security Trustee when acting hereunder shall be acting in accordance with and subject to the terms of the Security Trust and Intercreditor Deed.

16 GOVERNING LAW AND JURISDICTION

This Agreement is governed by, and shall be construed in accordance with, Scottish law.

17 THIRD PARTY RIGHTS

Save to the extent expressly provided in this Agreement, it is expressly declared that no rights shall be conferred under and arising out of this Agreement upon any person who is not a party to this Agreement and, without prejudice to the foregoing generality, there shall not be created by this Agreement a jus quaesitum tertio in favour of any person whatsoever.

IN WITNESS WHEREOF:

SCHEDULE PART 26

COMMERCIALLY SENSITIVE INFORMATION

Where information or material falls within more than one category identified in column 1 of the table below, it shall be deemed to fall within the category whose corresponding period of confidentiality identified in column 2 of the table below will expire the soonest.

Category of Information/Material	**Period for which information is to be kept confidential**
Financial Model (as at Financial Close)	From the Effective Date until the date falling 2 years after the Actual Completion Date
Financial Model (amended from time to time in accordance with this Agreement)	From the date of the relevant Financial Model until the date falling 2 years after the later of: - the Actual Completion Date; and - the date on which the amendments to Financial Model are agreed in accordance with this Agreement
Prices within the Catalogue of Small Works and Services	Period during which the relevant prices are applicable
Small Works and Services Rates	Period during which the relevant Small Works and Services Rates are applicable
Project Co bank account information	Project Term
[IRR]	In the case of the [IRR] contained in the Financial Model as at Financial Close from the Effective Date until the date falling 2 years after the Actual Completion Date In the case of the [IRR] contained in the Financial Model as amended from time to time in accordance with this Agreement, from the date of the relevant Financial Model until the date falling 2 years after the later of: - the Actual Completion Date; and - the date of the Financial Model containing the relevant information
Ancillary Documents	Project Term
Funding Agreements	Project Term
Information about Project Co's processes, methodologies, working methods and information relating to the development of new processes and methodologies which amounts to a trade secret or which, if	Trade secrets – Project Term All other cases – 5 years from the date on which the information is produced to the Board

disclosed, could reasonably be considered to provide a commercial advantage to Project Co's competitors	
Breakdown of prices within the overall contract price (to the extent not disclosed within the Financial Model)	Project Term
Information on Project Co's costing mechanisms including information obtained from Project Co relating to project risks and pricing of the same and cost information relating to third party contractors and the Sub-Contractors	Project Term
Financial term sheets and related funding information including any funder pricing	2 years from the date on which the information is produced to the Board
Information relating to the appointment of Project Co as the preferred bidder to the Project (including the preferred bidder letter and correspondence and minutes relating to the same)	Until the date falling 2 years after the Actual Completion Date
Information contained within or relating to Project Co's bid for the Project except as otherwise listed in this Schedule Part 26 (*Commercially Sensitive Information*) or otherwise provided in the Agreement	Until the date falling 2 years after the Actual Completion Date

SCHEDULE PART 27

PLANS

Plan 1
[●]

Plan 2
[●]

Plan 2A
[●]

Plan 3
[●]

Plan 4
[●]

Plan 5
[●]

Plan 6
[●]

Plan 7
[●]

Plan 8
[●]

Plan 9

Plan 10
[●]

Plan 11
[●]

Plan 12
[●]

Plan 13
[●]

SCHEDULE PART 28

BOARD POLICIES

Policy Type	Name of Board Policy
Employment	
	Alcohol and substance use
	Dealing positively with stress at work
	Dignity at work
	Facilities Agreement
	Freedom of speech
	Healthcare associated infection: staff screening during incidents and outbreaks
	Management of employee capability
	Management of violence and aggression
	Recruitment guide Appendix 6: Disclosure Scotland / Protection of Vulnerable Groups
	Adult support and protection procedures
	Inter-agency child protection procedures
	Social media
	Tobacco policy
	Dress code
Financial	
	Business conduct procedure
Health and Safety	
	Alarm system and emergency response
	Control of contractors
	Fire safety
	First aid
	Health and safety
	Hot water management
	Incident management

	Legionella
	Lone working
	Manual handling
	Preventing slips, trips and falls
	Pseudomonas
	Staff action in the event of collapse, injury or other clinical emergency
	Traffic management
	Waste
	Window management
Infection Control	
	Infection Prevention and Control Manual - Glossary of terms and selected chapters:
	Chapter 1. Health Protection Scotland: standard infection prevention and control precautions
	Chapter 2. NHS Lothian: transmission based precautions
	Chapter 6. NHS Lothian: specimen policy
	Chapter 9. NHS Lothian: cleaning and decontamination policy
	Chapter 10. NHS Lothian: food hygiene
	Chapter 30. NHS Lothian: new equipment purchase for NHS, University, research, trial or loan
	Chapter 32. NHS Lothian: care and management of patient beds, mattresses and trolleys
Information Governance	
	CCTV
	Code of practice on the discharge of functions by public authorities under the Freedom of Information (Scotland) Act 2002
	Confidentiality of personal health information
Business Continuity and Emergency Planning	
	Major Incident Policy

	Business Continuity Tactical Plan: Estates - Hard Facilities Management
Sustainability	
	Carbon management plan
	Sustainable development strategy

Scottish Hospitals Inquiry – Working draft documents issued on 10 June 2022
Multiplex Construction Europe Limited – Response
29 July 2022

1 Introduction

1.1 The following is a response by Multiplex Construction Europe Limited ("**Multiplex**") to the working draft documents issued by the Inquiry by e-mail dated 10 June 2022 (timed at 16:48) having the following titles:

1.1.1 Scottish Hospitals Inquiry – Research Paper. Comparison across versions of the Environmental Matrix in relation to SHTM 03-01 up to Financial Close (13 Feb 2015);

1.1.2 Narrative concerning the Reference Design of the Royal Hospital for Sick Children and Department for Clinical Neurosciences; and

1.1.3 List flagging gaps in paperwork and ambiguity surrounding final versions identified in the Reference Design paper.

1.2 In preparing this response, Multiplex has proceeded on the basis that the responses to the questions are only to address the period up to 13 February 2015 (being Financial Close), with the period after 13 February 2015 and evidence relating thereto to be addressed at a later stage in the work of the Inquiry.

1.3 As a general point Multiplex note its involvement in RHSC & DCN project first commenced in or around March 2013. Multiplex is therefore not able to assist the Inquiry in relation to the period prior to this.

2 Multiplex response to each of the questions 1 to 14 listed in 'Scottish Hospitals Inquiry – Research Paper. Comparison across versions of the Environmental Matrix in relation to SHTM 03-01 up to Financial Close (13 Feb 2015)'

2.1 "*1. Do you agree with the above? If not, please provide any corrections and/or clarifications.*"

2.1.1 In relation to the matters set out at paragraphs 1 to 10 generally, as a preliminary point Multiplex would respectfully direct the Inquiry to Multiplex's responses (dated 8 October and 5 November 2021) to the Inquiry's Request for Information Number 2, which responses address, *inter alia*, the EM. In particular, Multiplex would direct the Inquiry to paragraph 2.2 of the response and document nos. 2.7 (Critical Care) and 2.11 (Single Room).

2.1.2 Paragraph 1 – Multiplex was not involved in the development of the earlier versions of the EM. For the reasons set out in the above noted documents and explained further below, Multiplex respectfully submits that the reports prepared by KPMG and Grant Thornton are incorrect where they refer to there being 'errors' in the EM. Multiplex's understanding was that the EM represented NHSL's specific requirements for the RHSC & DCN project.

2.1.3 Paragraph 1 – "*In particular, it was identified that 4ACH had been specified in the EM for critical care and multi-bed rooms when - per the Board's Construction Requirements and Table A1 of SHTM 03-01 Part A - 6ACH should have been specified (for general wards) and 10ACH (for critical care areas).*" Multiplex would respectfully submit that this sentence is incorrect. The Board's Construction Requirements provide that:

"*8 Mechanical & Electrical Engineering Requirements*

Project Co shall provide the Works to comply with the Environmental Matrix."[1]

In addition, compliance with SHTM 03-01 was qualified in terms of the Project Agreement[2].

2.1.4 Paragraph 6 –"*Neither NHSL nor IHSL picked up on many of the discrepancies between what was stated in the EM and the SHTM until July 2019 when the IOM testing was carried out*". Multiplex would respectfully submit that this sentence is incorrect. NHSL and IHSL were aware that NHSL's requirements as set out in the EM departed from, *inter alia*, SHTM 03-01 prior to Financial Close. By way of clarification the Inquiry is directed to the following:

2.1.4.1 On 3 July 2014 Multiplex requested that Mott MacDonald provide to it a copy in native format of the EM which had been prepared by NHSL and which formed part of the ITPD[3]. A copy in native format of the EM was provided by Mott MacDonald to Multiplex on 11 July 2014[4].

2.1.4.2 On 29 September 2014 Multiplex issued to NHSL and Mott MacDonald a draft version of the EM[5] which had been prepared by Wallace Whittle and which EM complied with the EM provided to Multiplex referred to at paragraph 2.1.4.1 above[6].

2.1.4.3 On 14 October 2014 Mott MacDonald issued to Multiplex a copy of NHSL's initial technical comments[7] on the draft EM, an extract from which comments is shown below:

7. Bedrooms 4ac/hr, SHTM says 6 ac/hr
   Bedrooms have no extract
   Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr
   Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure
   The supply air to a bedroom has to be balanced with extract
   e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr
   En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr
   To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr

8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr

1 Page 104 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).
2 As explained in Multiplex's responses to the Inquiry's Request for Information Number 2.
3 E-mail dated 3 July 2014 (timed at 09:00).
4 Aconex mail number MM-GC-000126 dated 11 July 2014. Document with file name "*RHSC_DCN RDS Environmental Matrix- SoA 13_Issue*".
5 Aconex mail number BMCE-GC-001193 dated 29 September 2014. Document with file name "*RHSC_DCN RDS Environmental Matrix-140904*".
6 Volume 3, Schedule Part 6, Section 3, Appendix C to the ITPD. The EM was unchanged in the version incorporated as part of the IFST.
7 Aconex mail number MM-GC-000339 dated 14 October 2014. Document with file name "*141013 Environmental Matrix Comments*".

2.1.4.4 On 28 October 2014 Multiplex forwarded Wallace Whittle's response to the initial technical comments to Mott MacDonald, an extract from which response (Wallace Whittle's response being the right-hand column in the table) is copied below[8]:

7. Bedrooms 4ac/hr, SHTM says 6 ac/hr Bedrooms have no extract Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure The supply air to a bedroom has to be balanced with extract e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr	The scheme is based on the Reference design throughout which is essentially mixed mode with openable windows and 2/3rds mechanical supply air to all bedrooms. This gives physiological benefits with access to fresh air control by user and obvious Energy benefits. We have amended the environmental schedule to show the room being balanced which is provided by the opening window.
8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr	15 ac/hr utilised with the current design, matrix amended accordingly.

2.1.4.5 The matter of air change rates and pressure regimes set out in the EM departing from SHTM were therefore the subject of discussion by this date. The matter of air change rates having been settled, discussions which then followed related only to pressure regimes as set out below.

2.1.4.6 On 31 October 2014 Multiplex issued an updated version of the EM to Mott MacDonald[9].

2.1.4.7 A meeting with the subject 'Environmental Matrix NHSL Comments Feedback' was convened on 11 November 2014. The meeting was attended by representatives from Multiplex, Wallace Whittle, NHSL and Mott MacDonald. Notes of the meeting were prepared by Mott MacDonald and issued by e-mail on 11 November 2014[10], which notes are copied below:

"Project Co shall update the Environmental Matrix to reflect the following Board comments

- Update the Environmental Matrix shall by updated by Project Co to reflect all the rooms and room types in the proposed Facility, this should be based on an updated Schedule of Accommodation that has been commented on separately by the Board. This also needs to reflect the names and room numbers in the GSU table.
- Include the requirements contained in the Clinical Output Specification including but not limited to the requirement that theatre temperatures are to be able to be raised to 31°C for certain operations
- Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of the following room types to reduce the temperature control from 28°C to 25°C
  - Treatment Rooms;
  - Consulting Rooms;
  - Laboratory;
  - Physiotherapy Studio;
  - Recovery.

  These room shall not exceed the maximum acceptable level of 25°C for more than 50 hours per annum
- Detailed proposal awaited on bedroom ventilation to achieve balanced/negative pressure relative to corridor.
- Colour rendering all stated as 80 where certain areas should be 90
- There also need to have a consistent approach e.g. guidance notes and ED body view room stated as 28 -8, bereavement suite body view room stated as 25 -8.
- Further discussion is required on the minimum temperate requirement for the Body View Room.

8 Aconex mail number BMCE-GC-001410 dated 28 October 2014. Document with file name "*20141027 Environmental Matrix Comments*"

9 Aconex transmittal number BMCE-TRANSMIT-001192. Document with file name "*WW-XX-XX-DC-XXX-001*"

10 E-mail dated 11 November 2014.

Bullet point 4 above relates to the discussions concerning the pressure regime for single bedrooms.

2.1.4.8 On 19 November 2014 a Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) ("HAI-Scribe") meeting was held at which it was recorded:

2.2	Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems?	**Yes**		**No**	**x**	**N/A**	
		Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk/issue.					

2.1.4.9 On 13 January 2015 an MEP workshop meeting was held at which the issue of pressure regimes was discussed. This was originally planned as a HAI-Scribe Stage 3 review which was cancelled due to attendance, however ventilation was discussed by those who attended. A 'ventilation overview paper' was issued by Multiplex that day following the meeting[11].

2.1.4.10 On 19 January 2015 Multiplex issued a Request for Information[12] to Mott MacDonald in the following terms:

"*As per meeting of Tuesday 13.01.15 and our request for clarity on negative / positive pressure regime within the bedrooms, we attach the sketches distributed at the meeting and seek confirmation / acceptance from the NHS review with infection control.*"

2.1.4.11 On 29 January 2015 Mott MacDonald responded[13] to Multiplex's Request for Information in the following terms:

"*Following your recent RFI, the Board respond as follows:*

- *The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.*
- *The design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice.*
- *The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor.*
- *Isolation room ventilation shall comply with SHPN 04 Supplement 1.*"

11 Aconex mail number BMCE-GC-001652 dated 13 January 2015.
12 BMCE-RFI-000077 - Bedroom Ventilation: HAI Scribe Confirmation.
13 E-mail dated 29 January 2015.

This was a variation / change to the mandated positive pressure requirement defined within the reference design EM to a balanced or negative pressure regime for the single bedrooms.

2.1.4.12 Following the above discussions, the EM was incorporated into the Project Agreement at Financial Close as part of the Room Data Sheets. The EM was defined as detailing "*the room environmental condition requirements of the Board within each department/unit/space/area*…." with Part 8 of the BCR's stating: *"Project Co shall provide the Works to comply with the Environmental Matrix."*[14]

2.1.4.13 NHSL's requirements as to, *inter alia*, air change rates and pressure regimes were subsequently confirmed post Financial Close during the RHSC & DCN project. By way of example, the EM was reviewed as part of the Schedule 8 Review Procedure, together with the wider associated ventilation design documents. Further, on 18 April 2018, as part of discussions in relation to the pressure regime in Multi-Bed Wards, NHSL expressly confirmed they *were "seeking design for 4 Air Changes to all 14 Rooms"*, four of these 14 rooms were located in Critical Care[15]. The associated design drawing was then issued through RDD on 21 June 2019 and given Status A by NHSL on 27 July 2018.[16]

2.1.5 Footnote 5 - "*The inquiry is unclear what "positive to ensuite" means in terms of the SHTM standards.*" Multiplex understands this term is used to determine the direction of airflow from clean to less clean i.e., air movement from the bedroom to the en-suite. This is to reduce contaminant and/or odour in the en-suite entering the bedroom.

2.1.6 Paragraph 10 – "*Instead all rooms in the hospital are categorised by their room function, irrespective of what department that room is situated in.*" Multiplex would note that in the body of the EM rooms are categorised by department.

2.1.7 Paragraph 14.2 - The change in pressure from positive to balanced was a result of NHSL's comments issued on 14 October 2014 and the response from Wallace Whittle on 28 October 2014 (referred to at paragraph 2.1.4 above).

2.2 "*2. Who produced or proposed changes to the Environmental Matrix at the following stages? 2.1. Before the switch to NPD 2.2. During the reference design stage 2.3. During Competitive Dialogue 2.4. After selection of the preferred bidder*"

2.2.1 Multiplex is unable to assist the Inquiry in relation to questions 2.1 and 2.2.

2.2.2 In relation to question 2.3 in the period from 11 March 2013 to 5 March 2014 the EM was under the control of Mott MacDonald and NHSL.

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14 Reference is made to Section 2 of Multiplex's 5 November 2021 Response to the Inquiry's Request for Information Number 2,

15 Aconex mail number NHSL-GC-002953 dated 18 April 2018.

16 WW-SZ-XX-DC-XXX-010 – REV 7.

2.2.3 In relation to question 2.4 in the period from 6 March 2014 to 13 February 2015, the EM was updated by Wallace Whittle in response to comments received from Mott MacDonald on behalf of NHSL and issued on 29 September 2014 and on 31 October 2014 before then being incorporated into the Project Agreement, reference is made to paragraph 2.1.4 above.

2.3 "*3. Who approved or confirmed acceptance of the Environmental Matrix and any changes made to it?*"

2.3.1 Multiplex is unable to assist the Inquiry in relation to the period prior to 11 March 2013.

2.3.2 In the period from 11 March 2013 to 5 March 2014 the EM was under the control of Mott MacDonald and NHSL.

2.3.3 In the period from 6 March 2014 to 13 February 2015 Multiplex issued the EM to Mott MacDonald for comment and acceptance on behalf of NHSL on 29 September 2014 and on 31 October 2014 before then being incorporated into the Project Agreement, reference is made to paragraph 2.1.4 above.

2.4 "*4. What was the purpose of the Environmental Matrix?*"

2.4.1 Multiplex understands that the purpose of the EM was to define NHSL's specific room environmental requirements. In this regard, Multiplex would direct the Inquiry to Section 2 of Multiplex's 5 November 2021 Response to the Inquiry's Request for Information Number 2, together with the following:

Bid submission requirement C8.3 of the ITPD stated:

"*Whilst bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis*"

The BCRs within the ITPD and Project Agreement confirmed:

"*Environmental Matrix*

Means the Environmental Matrix, which ***details the room environmental condition requirements of the Board required within each department / unit / space / area****. The title is Reference Design Envisaged Solution – RHSC / DCN Environmental Matrix version third issue as set out in Appendix C of this Section 3 (Board's Construction Requirements) of Schedule Part 6*

(Construction Matters) (as varied, amended or supplemented from time to time in accordance with the Project Agreement);"[17] (emphasis added)

"*8 Mechanical & Electrical Engineering Requirements*

[17] Page 11 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).

Project Co shall provide the Works to comply with the Environmental Matrix."[18] (emphasis added)

"*The need to* ***maintain comfort conditions in accordance with the Room Data Sheets*** *in all areas but particularly in clinical areas is of paramount importance and Project Co shall develop strategies for achieving these conditions together with minimum energy consumption.*"[19] (emphasis added)

"*2.5.3 Room Data Sheets*

Standard format Room Data Sheets have not been prepared by the Board for the Project*.* ***The specific room requirements*** *(the "Room Information")* ***are detailed in*** *a combination of the following documents:*

- *The Board's Construction Requirements;*
- ***The Environmental Matrix****;*
- *The Schedule of Operational/Design Notes;*
- *The Equipment Schedule;*
- *The Equipment Responsibility Matrix;*
- *The Draft Schedule of Accommodation; and*
- *The Operational Functionality elements of the Reference Design.*"[20]

2.4.2 Item 1 of the Guidance Notes to the EM provided with the ITPD stated: "*This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets"*

2.4.3 Item 1 of the Guidance Notes to the EM incorporated in the Project Agreement, stated: "*This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets."*

2.4.4 Page 3 of the EM is then titled: "*Room Function Reference Sheet*" and states: "*The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions*". In relation to ventilation this table provides the type, supply air changes per hour ("ac/hr"), extract ac/hr, relative pressure, and minimum filtration required for each room type. This being then further expanded within the matrix by reference to each department, with paragraph 2.5 of the BCR's stating:

18 Page 104 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).
19 Page 120 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).
20 Page 200 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).

"*…Where the Board has defined their preference specifically, Project Co shall adopt these preferences as a mandatory requirement. Where no Board preference is stated, Project Co shall engage the Board in the design development process to seek and incorporate the Board's preference within the Facilities*".

2.4.5 Paragraph 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, which stated:

2.1.4: "*All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets*"

2.1.32: "*Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix*"

2.4.6 The EM defined NHSL's specific environmental requirements for each space and IHSL were then to develop the building services engineering solutions to achieve these defined environmental requirements.

2.5 "*5. What are Schedule of Accommodation sheets, who produces them and what information did they contain?*"

2.5.1 Generally, a schedule of accommodation defines the minimum space requirements within a facility. The schedule is usually prepared by the client as a briefing document defining their needs. The schedule is likely to contain a room reference no, room name, room type, room area (m²) and arranged by department. As a project progresses the design team develops and expands the schedule to record the actual designed area highlighting any variance.

2.5.2 For the RHSC & DCN project the schedule of accommodation was prepared by NHSL and included within the ITPD Room Information. During the preferred bidder stage the schedule of accommodation was developed by IHSL.

2.6 "*6. Particularly with regard to paragraph 6, could you further explain or clarify the connection between the room function reference sheet, the 'department sheets', ADB Room Data Sheets, and the room data sheets that NHSL and IHSL were responsible for (as you understand it).*"

2.6.1 As a preliminary point, as explained above and by way of clarification, Multiplex would direct the Inquiry to the response to questions 1 and 4 above, as to the responsibility for the EM and Room Data Sheets.

2.6.2 The environmental matrix format was devised prior to Multiplex's involvement and contained both the Room Function Reference Sheet and the Department Sheets.

2.6.3 The Room Function Reference Sheet was included in the EM provided with the ITPD, it provided one line entry for each room type in the facility. The sheet contains the environmental data for each room type. This sheet confirms "*Refer to individual department sheets for individual room environmental conditions"*.

2.6.4 The Department Sheets contain all rooms within each department and provides the environmental conditions for each room. It covers all departments within the facility, as such it is significantly larger than the Room Function Reference Sheets.

2.6.5 Room data sheets are generally produced using a software package such as the Activity Data Base ("ADB") or similar. The system allows room data sheets to be developed from a standard library that can be modified to record specific client requirements.

2.6.6 Item 1 of the Guidance Notes to the EM provided with the ITPD stated: "*This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets."*

2.6.7 Item 1 of the Guidance Notes to the EM incorporated in the Project Agreement stated: "*This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets.*"

2.6.8 At Financial Close, under the Project Agreement, Room Data Sheets were defined as having "*the meaning given in Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters)*". Section 6 then states:

"*The Room Data Sheets are the Room Data Sheets as set out on the disc in the Agreed Form identified and executed as Appendix 1 (RDS Pack) and Appendix 2 (Environmental Matrix) of Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) of this Agreement, referred to in and forming part of this Agreement.*"

2.6.9 The Room Data Sheets on the project were accordingly formed of two parts: (1) the Room Data Sheets which were provided as Appendix 1 to Section 6; and (2) the EM which is Appendix 2. The ventilation requirements in the Room Data Sheets incorporated as Appendix 1 to Section 6 of the Project Agreement were derived from the EM on the basis they represented NHSL's specific requirements for the project.

2.7 "*7. Other than SHTM 03-01, what guidance and sources of information were used to compile the Environmental Matrix, with particular reference to single bedrooms, 4 bed-rooms/multi-bed wards, and Critical Care/HDU?*"

2.7.1 Multiplex is unable to assist the Inquiry with this question in relation to the EM's prepared by NHSL.

2.7.2 Likewise, insofar as the EM issued on 29 September 2014 and on 31 October 2014 is concerned, the environmental conditions within the EM were provided by NHSL. Multiplex would respectfully direct the Inquiry to Wallace Whittle as the authors of the EMs issued in 2014 to as to the guidance and information it took into account in preparing the EMs.

2.8 "*8. Why are a number of department-specific room types (for example for neutropenic patient areas, infectious disease iso room, UCV operating theatre and anaesthetic room) not included in the Room Function Reference Sheet when they are referred to in Appendix 1 of SHTM 03-01 part A as requiring specialised ventilation?*"

2.8.1 Multiplex is unable to assist the Inquiry with this question, the format of the Room Function Reference Sheet was decided prior to their involvement.

2.9 "*9. Is there a difference between "HDU" and "Critical Care"?*"

2.9.1 Multiplex is unable to assist the Inquiry with this question as it is a matter for suitably qualified clinical experts.

2.9.2 Multiplex would note that at the RHSC & DCN project the "*Critical Care*" department provides both Paediatric Intensive Care ('PICU') and High Dependency ('HDU').

2.10 "*10. Why was "HDU" removed from the room function reference sheet in IHSL's version of the EM dated from September 2014? Was NHSL informed?*"

2.10.1 The EM issued on 29 September 2014 was prepared by Wallace Whittle and Multiplex would therefore respectfully direct the Inquiry to Wallace Whittle to respond to this question.

2.10.2 Multiplex would note that the tab 'All Rooms' includes reference to HDU's.

2.11 "*11. The table in appendix 1 of SHTM 03-01 Part A recommends 'S/E/N' (supply, extract and natural) ventilation for single rooms. What do you understand this to mean in relation to the 'mixed mode' ventilation strategy referred to in different versions of the EM?*"

2.11.1 Multiplex understands the S/E/N outlined in SHTM 03-01 Part A, to be referencing alternative means of providing ventilation i.e. mechanical supply, mechanical extract or natural ventilation. The SHTM has a section that outlines the use and limitations of a natural ventilation solution, and the variability on ventilation rates. The SHTM further goes on to state that *'the variability is normally acceptable for general areas including office accommodation, general wards,….'*.

2.11.2 The mixed mode ventilation strategy was devised prior to Multiplex's involvement, with the BCRs requiring the minimisation of mechanical ventilation and use of natural ventilation (reference is made to paragraphs 5.26 and 8.5.3).

2.11.3 Multiplex were not involved in the production of the Reference Design EM. It would appear to include 4 ac/hr mechanically while taking advantage of natural ventilation effects when present. The 4 ac/hr mechanical ventilation appears to be that required to maintain the NHSL enhanced temperature range of 18 - 25°C for bedrooms as described within the Hulley & Kirkwood reference design Thermal Comfort Report. Multiplex is of the view that this could (along with any other factors considered to be relevant by NHSL) be a possible explanation for the selection of 4 ac/hr plus natural ventilation as designed by Hulley & Kirkwood and prescribed in the Project Agreement. Reference is made to item 5 and 15 in the Guidance Notes to the ITPD and Project Agreement EM and Guidance Note 26 of the Project Agreement EM.

2.12 "*12. In respect of the table below, do you agree that the following are areas of non-compliance with SHTM 03-01? To what extent would these issues have compromised patient safety?*"

2.12.1 As a preliminary point and for clarification, Multiplex would refer to Section 2 of its 5 November 2021 Response to the Inquiry's Request for Information Number 2, including that under the Project Agreement between NHSL and IHSL and the Construction Contract between IHSL and Multiplex, the design and installation of the ventilation systems for the RHCYP & DCN project which Multiplex

was to provide, was to comply with SHTM 03-01, except where a differing requirement was expressed by NHSL in the BCR's and/or required by the Room Data Sheets, as reviewed and approved by NHSL.

Non-compliance with SHTM 03-01 at financial close	Multiplex Comments
Multi-bed ward: SHTM 03-01 recommends 6ac/hr supply/natural ventilation for 'General Ward'. The EM provides for 4 ac/hr supply with extract via en-suite.	Generally concur that this statement aligns with SHTM 03-01 part A and the EM at Financial Close, although understanding of limitations in demonstrating air change rate when reliant on natural ventilation.
Multi-bed ward: SHTM 03-01 does not specify pressure regime. The EM provides for pressure to be positive to en-suite.	SHTM 03-01 Part A App A does not give criteria for multi bed ward – it gives criteria for general ward or single bedroom. General ward criteria within SHTM 03-01 Part A does not stipulate specific pressure requirement.
SHTM recommends temperature range of 18 – 28 degrees Celsius for single bedrooms and general wards. The EM provides for 18 – 25 degrees.	This aligns with Multiplex's understanding of SHTM 03-01 Part A, the Board's Construction Requirements and other contract documents stipulate more onerous criteria, hence the values of the tighter range in the EM.
Single bedrooms: SHTM 03-01 recommends 6ac/hr, EM recommends 4ac/hr	Generally, concur that this statement aligns with SHTM 03-01 part A. the EM at Financial Close required (rather than recommended) 4 mechanical ac/hr. The impact of natural ventilation and the methods of achieving i.e. S/E/N needs to also be considered.
Haematology/Oncology ward (which accommodates neutropenic patients). SHTM 03-01 recommends 10ac/hr supply and 10Pa (positive) pressure EM provides for: Bedrooms: 4ac/hr balanced pressure Isolation bedrooms: 10 ac/hr balanced pressure Multi-bed wards: 4ac/hr positive pressure	This aligns with Multiplex's understanding of SHTM 03-01Part A. EM statement about isolation room states supply of 10ac/h and balanced, however the type states supply air via lobby. EM also states multi bed as natural and central supply with 4 ac/h supply, extract via ensuite and positive pressure to ensuite.
Critical Care/HDU, single bed cubicles: SHTM 03-01 recommends 10ac/hr supply with positive pressure. The EM provides for 4ac/hr natural and central supply air, with extract via ensuite and balanced pressure	It should be noted that critical care and high dependency unit bed bays / single cubicles are not explicitly stated within App A of SHTM 03-01 Part A at time of developing brief / design. Section 8 of SHTM 03-01 Part A V3 (2022) now includes specific criteria for critical individual rooms and open bays.
Critical Care/HDU open plan bays: SHTM 03-01 recommends 10ac/hr supply with positive pressure. EM provides for 4ac/hr natural and central supply air with extract via en-suite and pressure positive to ensuite	It should be noted that critical care and high dependency unit bed bays / single cubicles are not explicitly stated within App A of SHTM 03-01 Part A at time of developing brief / design. Section 8 of SHTM 03-01 Part A V3 (2022) now includes specific criteria for critical individual rooms & open bays.

Non-compliance with SHTM 03-01 at financial close	Multiplex Comments
Critical Care/HDU isolation bedroom: SHTM 03-01 recommends 10ac/hr supply air, negative pressure and temperature 18-25 degrees Celsius. EM provides for isolation room with 10ac/hr, balanced pressure and temperature at 21-25 degrees Celsius. Also includes isolation room lobby which is not mentioned in SHTM 03-01	Under critical care areas, SHTM 03-01 Part A App A states isolation room **may** be negative pressure. For ward isolation rooms SHTM 03-01Part A App A, cross refers to SHPN 04 S1. Critical Care Units HBN 04-02 (2014) published as best practice guidance in Scotland states that *'ventilation system should provide source and protective isolation. A balanced supply and extract ventilation to isolation room and gowning lobby is, therefore, proposed.'*
Recovery Room (for operating theatres): SHTM 03-01 recommends 15ac/hr supply and extract with balanced pressure and temperature control range of 18-25 degrees Celsius. EM provides for 15ac/hr supply and extract and balanced pressure, but a 20 – 28 degrees Celsius temperature control range	This aligns with Multiplex's understanding of SHTM 03-01 Part A. In future revisions of the EM the temperature control range is changed to 20 - 25°C.

2.12.2 As set out previously, in terms of "*EM recommends*", adherence to the EM was mandated by NHSL, it was not a recommendation. This was used as the basis of the MEP design.

2.12.3 The EM at Financial Close, closely aligns with the reference design EM taking into account comments received from Mott MacDonald on behalf of NHSL. In versions post Financial Close the single bedrooms change to balanced pressure in-line with comments made by NHSL prior to Financial Close.

2.12.4 Multiplex is unable to assist the Inquiry in relation to matters of patient safety as that is a matter for suitably qualified clinical experts. In this regard, and by way of example, the Inquiry heard evidence from Mr Professor Humphreys that:

"*Controlled ventilation such as in isolation facilities is one component of preventing infection being spread or being acquired by patients via air.*"[21]

"*It is challenging to identify specially the exact contribution a controlled ventilated area may have in either preventing a patient acquiring infection or in general preventing infections being transmitted within a hospital, because ventilation is not used alone, but is part of a suite of preventative measures.*"[22]

2.13 "*13. Who reviewed the EM?*"

2.13.1 Multiplex is unable to assist the Inquiry in relation to the period prior to 11 March 2013.

2.13.2 In the period from 11 March 2013 to 5 March 2014 the EM was under the control of Mott MacDonald and NHSL.

21 Page 13 of Hearing commencing 9 May 2022 - Bundle 6 Expert Reports and Statement.
22 Page 14 of Hearing commencing 9 May 2022 - Bundle 6 Expert Reports and Statement.

2.13.3 In the period from 6 March 2014 to 13 February 2015 the EM was reviewed by Multiplex who deferred to Wallace Whittle as its specialist design consultant, Wallace Whittle, Mott MacDonald and NHSL reference is made to paragraph 2.1.4 above.

2.14 "*14. Was the EM reviewed by a healthcare planner, an Infection Prevention and Control nurse or expert, by clinicians or by Health Facilities Scotland? Please provide details.*"

2.14.1 Multiplex is unable to assist the Inquiry with this question. Communication to and from NHSL with regards to the EM was through Mott MacDonald.

3 Multiplex response to 'Narrative concerning the Reference Design of the Royal Hospital for Sick Children and Department for Clinical Neurosciences'

3.1 "*4.1 When was the Reference Design completed?*"

3.1.1 Multiplex is unable to assist the Inquiry with this question.

3.2 "*4.2 Room Data Sheets were a deliverable of the Reference Design Team. Why was the decision taken in May 2012 to cease production of Room Data Sheets?*"

3.2.1 Multiplex is unable to assist the Inquiry with this question.

3.3 "*4.3 When Room Data Sheet production was ceased, did the number of completed Room Data Sheets represent the majority of the development?*"

3.3.1 Multiplex is unable to assist the Inquiry with this question.

3.4 "*4.4 What were the Room Data Sheets referred to in Section 3.6.3 of ITPD Volume 3 and 'included in Schedule Part 6 Section 6'? Why were these given to bidders?*"

3.4.1 In regard to the first question, Room Data Sheets were not provided to the bidders. This was clarified at the bidder's day presentation on 13 December 2012, and reinforced within section 2.53 of the ITPD Volume 1 Revision B (noted at paragraph 2.4.1 above).

3.4.2 Multiplex is unable to assist the Inquiry with the second question.

3.5 "*4.5 Why was ventilation data provided in these Room Data Sheets if the preferred bidder had to verify it against functional requirements?*"

3.5.1 Reference is made to the response at paragraph 3.4.1 above.

3.5.2 Multiplex was not obliged to verify the ventilation data as the Reference Design EM was presented as defining NHSL's specific requirements.

3.6 "*4.6 Why was the Environmental Matrix from the capital phase of the project taken forward and developed under the NPD phase when, under that model, responsibility for environmental specifications was going to sit with the preferred bidder?*"

3.6.1 Multiplex is unable to assist the Inquiry with this question.

3.7 "*4.7 Where did the data within the Environmental Matrix come from? How was it arrived at?*"

3.7.1 Multiplex is unable to assist the Inquiry with this question in relation to the EM's prepared by NHSL.

3.7.2 Insofar as the EM issued on 29 September 2014 and on 31 October 2014 is concerned, the data came from NHSL.

3.8 "*4.8 The Inquiry understands that SG policy set out in HDL (2006) 58 and revised by CEL 19 (2010) mandated the use of ADB. It is further understood that ADB is typically used as the basis for producing project specific Room Data Sheets. However section 2.5.3 of ITPD Volume 1 (Reference Design and Mandatory Reference Design Requirements, Room Data Sheets) required bidders to incorporate the terms of the Environmental Matrix into Room Data sheets. Why were bidders to use the Environmental Matrix as the basis for producing Room Data Sheets rather than ADB?*"

3.8.1 Multiplex is unable to assist the Inquiry with this question.

3.9 "*4.9 HDL (2006) 58 and CEL 19 (2010) provided that an alternative to ADB could be used, so long as it was demonstrated that the alternative was of equal quality and value in its application as ADB. How was it demonstrated that the Environmental Matrix was of equal quality and value as ADB?*"

3.9.1 Multiplex is unable to assist the Inquiry with this question.

3.9.2 Multiplex understood that the EM defined NHSL's requirements and replaced the environmental data within ADB.

3.10 "*4.10 The Environmental Matrix features in ITPD Volume 1 Section 2.5 (Reference Design and Mandatory Reference Design Requirements), and ITPD Volume 3 presents the Environmental Matrix as mandatory for bidders to adopt. Why was this the case when the Reference Design was only to mandate Operational Functionality, and Operational Functionality was exclusively to be outlined in the Clinical Output Specification, the Schedule of Accommodation and the Adjacency Matrix?*"

3.10.1 Multiplex is unable to assist the Inquiry with this question.

3.10.2 Multiplex understood the EM was mandatory and that it set out NHSL's specific requirements for the RHSC & DCN project.

3.11 "*4.11 The Environmental Matrix derogated from the terms of SHTM 03-01. Was this derogation intended, and if so, was the decision to derogate documented and supplemented by a risk assessment?*"

3.11.1 Multiplex is unable to assist the Inquiry with this question.

3.11.2 Multiplex understood the EM represented NHSL's specific requirements for the RHSC & DCN project and so any derogation was intended. This was confirmed during the course of the project and as part of the Settlement Agreement and Supplemental Agreements between NHSL and IHSL and IHSL and Multiplex dated 22 February 2019.

3.12 "*4.12 Within the Room Information, the Reference Design contained ventilation requirements. Were these ventilation requirements approved by clinicians, IP&C specialists, or an Authorising Engineer (or an equivalent independent engineering professional) before the Reference Design was issued to bidders?*"

3.12.1 Multiplex is unable to assist the Inquiry with this question.

3.13 "*4.13 The Environmental Matrices of 2010 anticipated a bedroom ventilation design supplemented by openable windows. Why in 2015 did the Board confirm that the ventilation design should not rely on openable windows?*"

3.13.1 Mott MacDonald's response on 29 January 2015 (referred to at paragraph 2.1.4.11 above) was in relation to negative / positive pressure regime within the bedrooms, not air change rates.

3.14 "*4.14 The M&E Reference Design Approach paper provides that 'rooms will not be reliant on natural ventilation alone, unless they comply with maximum temperature limits listed in the RDS Environmental Matrices'. Were maximum temperature limits the decisive factor for how rooms would be ventilated?*"

3.14.1 Multiplex is unable to assist the Inquiry with this question, as they were not involved during this period, reference is made to paragraph 2.11.3 regarding Multiplex's current understanding of the impact of temperature on NHSL's ventilation strategy.

3.15 "*4.15 If it was intended that the preferred bidder would verify and develop the Environmental Matrix, how and where was this communicated?*"

3.15.1 Multiplex is unable to assist the Inquiry with this question as to NHSL's intentions.

3.15.2 Multiplex understood the EM was mandatory and that it set out NHSL's specific requirements for the RHSC & DCN project.

3.16 "*4.16 If one of the failed bidders changed ventilation data within the Environmental Matrix and brought this to the attention of NHSL, what was NHSL's response and why?*"

3.16.1 Multiplex is unable to assist the Inquiry with this question.

4 Multiplex response to 'List flagging gaps in paperwork and ambiguity surrounding final versions identified in the Reference Design paper'

4.1 Multiplex provides the following documents in response to the Inquiry's request:

4.1.1 Hullley and Kirkwood Consulting Engineers Ltd, 'Reference Design Stage BREEAM 2008/2011 Comparison and Project Implications' (September 2011, Issue No.2, Rev A);

4.1.2 Hulley and Kirkwood, 'Reference Design Stage: Section 6 SBEM Compliance Report Revision A' (17 February 2012);

4.1.3 NHS Lothian, 'Invitation to Participate in Dialogue Volume 1 Revision B' (17 April 2013);

4.1.4 NHS Lothian, ‘Invitation to Submit Final Tender’ (Volume 1, Revision A) (16 December 2013);

4.1.5 Wallace Whittle, ‘Air Movement Report For Single Bedrooms (Draft)’ (12 January 2015).

29/07/2022

Healthcare Associated Infection System for Controlling Risk in the Built Environment (HAI-SCRIBE)

HAI SCRIBE

Project: RHSC & DCN Re-Provision Project, Little France
Location:
Date:19th November 2014

Construction Start: **TBC**
Construction End: **TBC**

Project Summary:

A project to re-provide the services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France

DRAFT

Risk Assessment in accordance with “HAI-SCRIBE June 2007: Development Stage 3, Construction / Redevelopment Phase in accordance with: Scottish Health Facilities Note 30: Version 3”

Section 1

Scope of Works:	
Location of work activity	**RIE Campus – Car Park B**
Commencement date and duration	**TBC**
Description of work activity	**Construction of new facility**
Who will carry out the work	**IHSL**
Estates Department representative name and contact details.	

HAI SCRIBE Assessment			
Construction/ Refurbishment activity type	**Type 4– Major demolition and construction projects**		
	Comment Small amount of demolition required		
Patient Risk Group	**Group 4 – highest risk**		
	Comment		
Risk Classification	**Class I**	Tick	
	Class II		
	Class III		
	Class IV	√	

Healthcare Associated Infection System for Controlling Risk in the Built Environment (HAI-SCRIBE)

DRAFT

Section 2 – consultation.			
The undernoted staff have been consulted in the preparation of this Risk Assessment			
Department	**Print**	**Sign**	**Date**
Infection Control	Janette Richards		19:11:2014
Design Manager/IHSL	Liane Edwards-Scott		19:11:2014
Lead Architect/IHSL	Lorraine Robertson		19:11:2014
Technical Advisor	David Stillie		19:11:2014
Technical Advisor	Colin Macrae		19:11:2014
Clinical Director	Janice MacKenzie		19:11:2014
Project Manager	Fiona Halcrow		19:11:2014
Contracts Manager	Stuart Davidson		19:11:2014

Section 3 – contractor acceptance.			
I have read and understood the control measures detailed within this risk assessment and accept responsibility for the implementation and maintenance of those measures. The work activity **must not** commence until the work area has been inspected and approval to proceed has been granted by the responsible Estates Department representative.			
Organisation	Print name	Sign	Date

Section 4 – initial inspection of control measures.			
I have inspected the work area and am satisfied that the necessary control measures are in place.			
Department	Print	Sign	Date
Estates			
Infection Control			

Proposed Plan

Section 2: Assessment of the Risk of Infection from the Design and Layout of the Facility

	Comments					
	Yes	**X**	**No**		**N/A**	

DRAFT

	healthcare facility inhibit the spread of infection?	With reference to national Guidance SHTMs, HBNs etc Infection Control Drawings have been produced and reviewed throughout the process up until FC.					
2.2	Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems?	**Yes**		**No**	**x**	**N/A**	
		Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk/issue.					
2.3	Has account been taken of the use of natural ventilation being affected by neighbourhood sources of environmental pollution as discussed in Development Stage 1?	**Yes**	**X**	**No**		**N/A**	
2.4	Is the interior of the healthcare facility easy to clean and maintain clean? (Surfaces of floors, walls and ceilings should be appropriate to the particular room and the required management of infection risk. Thus, carpeted floors in offices may be appropriate but not appropriate in clinical areas. There should be coving at right angle junctions of walls, floors and ceilings to ease effective cleaning.)	**Yes**	**X**	**No**		**N/A**	
		Throughout the process interior design has been discussed and meets HAI Scribe 30. No clinical area will have carpets in this building.					
2.5	Does each ward allow sufficient space between beds to comply with the current guidance, thus facilitating the healthcare services to the patient, which in turn may reduce HAI risk?	**Yes**	**X**	**No**		**N/A**	
		The distance between bed spaces in the multiple bed areas has been assessed throughout the process and meets guidance. Single room accommodation derogation was sought for both RHSC and DCN and approved by the SGHD.					
2.6	Are there facilities to enable high standards of hand hygiene to be maintained? For example, standards specified in: • 'Improving Clinical Care in Scotland Healthcare Associated Infection (HAI); Infection Control' (QIS 2003); • 'Standards Healthcare Associated Infection (HAI) Infection Control' (CSBS 2001).	**Yes**	**X**	**No**		**N/A**	
		Reviewed thoroughout detailed UGM's (April-July 2014).					
2.7	Where curtain rails and curtains are fitted are they easy to clean and maintain clean?	**Yes**	**X**	**No**		**N/A**	
		To be further developed through procurement phase.					

DRAFT

2.8	Is the toilet, bath and shower accommodation conveniently sited in relation to the ward and, where possible, is this accommodation en- suite?	**Yes**	**X**	**No**		**N/A**	
		This has been achieved and all relevant drawings have been signed off as operationally acceptable during the UGMs (Apr-July 2014).					
2.9	Is the toilet, bath and shower accommodation accessible for cleaning purposes and is the accommodation easily cleaned?	**Yes**	**X**	**No**		**N/A**	
		Will be compliant with SHTM 64.					
2.10	Does the ventilation of the toilet, bath and shower accommodation ensure extraction of air from the room to the outside air?	**Yes**	**X**	**No**		**N/A**	
		Exceeds guidance (3 to 10 air changes).					
2.11	Are the staff changing facilities suitably sited, have sufficient space, and readily accessible?	**Yes**	**X**	**No**		**N/A**	
		Various staff changing accommodation within building that meets relevant guidance. Signed off during UGM's (April - July 2014)					
2.12	Are the staff showering facilities suitably sited and readily accessible for use, particularly in the event of contamination incidents?	**Yes**	**X**	**No**		**N/A**	
		Showering facilities for staff to access in incidents requiring decontamination are sited in relevant departments (e.g. ED/Child Life and Health/Radiology Department /Helipad).					
2.13	Is there satisfactory provision of isolation facilities for infectious and potentially infectious patients?	**Yes**	**X**	**No**		**N/A**	
		Each ward area has the required number of isolation facilities.					
2.14	Is there separation of dirty areas from clean areas to minimise the risk of HAI contamination?	**Yes**	**X**	**No**		**N/A**	
		FM drawings illustrate the separation of dirty and clean areas. Drawings accepted at UGM's and FM Group.					
2.15	Is there sufficient storage accommodation provided in each area of the healthcare facility for equipment which is mobile and not in continuous use?	**Yes**	**X**	**No**		**N/A**	
		Sufficient storage accommodation has been provided in all departments to meet users needs (Mobile Hoists/wheelchairs etc).					
2.16	Are there satisfactory facilities for storage of	**Yes**	**X**	**No**		**N/A**	

DRAFT

cleaning equipment e.g. Domestic Services room?	DSR facilities provided in department areas that allow for the safe storage of materials.

DRAFT

2.17 Is the service ducting for utilities etc. concealed to ease routine cleaning of surfaces?	**Yes**	**X**	**No**		**N/A**	
	Integrated Plumbing System used to ease access for cleaning and identified on drawings. Bed Head trunking will conceal services.					
2.18 Does the service ducting for utilities provide sufficient access for maintenance and pest control?	**Yes**	**X**	**No**		**N/A**	
	Drawings show removable panels for access for maintenance and management of pest control. Further detail to be developed.					
2.19 Are there sufficient and conveniently sited facilities provided for the cleaning of common equipment like trolleys, wheelchairs etc?	**Yes**	**X**	**No**		**N/A**	
	Designated areas in specific departments to aid this process.					
2.20 Are the food preparation areas (including ward kitchens) and distribution systems fit for purpose and complying with current food safety and hygiene standards?	**Yes**	**X**	**No**		**N/A**	
	Specialist catering advisors involved in process to ensure areas fit for purpose on completion.					
2.21 Are waste management facilities and systems robust and fit for purpose? (This includes local and central storage, systems for movement of waste to central storage, systems for handling and compaction of waste, systems for separation and security of waste, especially healthcare clinical waste.)	**Yes**	**X**	**No**		**N/A**	
	Segregated waste areas provided and further detail to follow as part of the RDD process.					
2.22 Is the water distribution system designed to discourage bacterial growth and to ensure delivery of hot and cold water to users at the appropriate temperatures?	**Yes**	**X**	**No**		**N/A**	
	Further detail to follow as part of the RDD process.					
2.23 Is the drainage system design, especially within the healthcare facility building, fit for purpose with access points for maintenance carefully sited to minimise HAI risk?	**Yes**	**X**	**No**		**N/A**	
	Further detail to be provided through RDD process.					

DRAFT

2.24	Are there satisfactory arrangements for effective management of laundry? (This includes local and central storage, systems for movement of laundry to central storage, systems for handling laundry, systems for separation and security of laundry, especially contaminated laundry.)	**Yes**	**X**	**No**		**N/A**	
		Areas identified to manage all laundry types.					
2.25	Are there sufficient and suitably sited facilities for bed pan washing/disposal?	**Yes**	**X**	**No**		**N/A**	
		Each clinical area has a dirty utility room with access to facilities for bed pan washing/disposal where relevant.					

The answers to the above questions should be 'yes'. Where a potential hazard is identified a careful assessment of that hazard must be undertaken.

DRAFT

RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

1.0 Introduction

We have been asked to review the air movement within the single bedrooms under various ventilation scenarios.

1. Windows and trickle vents closed, no natural ventilation, mechanical ventilation only provided to the bedrooms.

2. Windows and window trickle vents open, natural and mechanical ventilation provided to the bedrooms.

3. Some of the windows and window trickle vents open and some closed, mixture of natural and mechanical ventilation to the bedrooms.

2.0 Interpretation of SHTM 03 Ventilation for Healthcare Premises

A single room within Appendix 1 : Table A1 : Recommended air-change rates is given under the ventilation column as supply/extract/natural, with 6 ac/hr and room pressure as zero or negative. The single room WC from the table is 3 ac/hr and room pressure is negative.

Current bedroom ventilation design is supply into the room at 4 ac/hr with opening windows and trickle vents to provide natural ventilation, this gives a balanced room pressure as long as the window is open.

The single bedroom WC extract has been enhanced to 10 ac/hr and the room pressure is negative.

3.0 Ventilation Scenario's

Scenario 1

1. Bedroom is positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows to the corridor via doors.
4. Corridor is provided with extract ventilation, pressure is balanced.

Scenario 2

1. Bedroom has balanced pressure.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows and trickle vents.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms and other rooms.

RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

Scenario 3

1. Bedrooms with open windows have balanced pressure and bedrooms with closed windows are positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows or through the bedroom doors if the windows are closed.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms.

Refer to Appendix 1 for the Air Flow and Resultant Room Pressure drawings.

The original reference design as detailed within the Environmental Matrix is as follows:-

Bedroom - Supply 4Ac/Hr & Room Pressure Positive.
WC – Extract 10Ac/Hr & Room Pressure Negative.

4.0 Conclusion

Reviewing the three air flow and resultant room pressure scenario drawings G1547/(57)SK01-SK03:

When the windows and trickle vents are utilised for natural ventilation the bedroom pressure is balanced and the corridor becomes negative.

If some of the windows and trickle vents are closed, these bedrooms will become positive and the bedrooms with open windows again will be balanced, where the corridor is negative.

Should all the bedroom windows and trickle vents be closed, the bedroom pressure is positive and the corridor shall be balanced as the corridor extract rate will match the supply air coming from the bedrooms via their doors.

The window trickle vents should be left open when the rooms are occupied, this will ensure that the bedroom pressure is balanced.

By utilising the proposed mixed mode ventilation proposal for the bedrooms, ie. opening windows and trickle vents with the supply air reduced from 6Ac/Hr to 4Ac/Hr direct into the bedroom, this will provide the most energy efficient solution for the space.

We believe that we have complied with the reference design concept as detailed within the original Environmental Matrix.

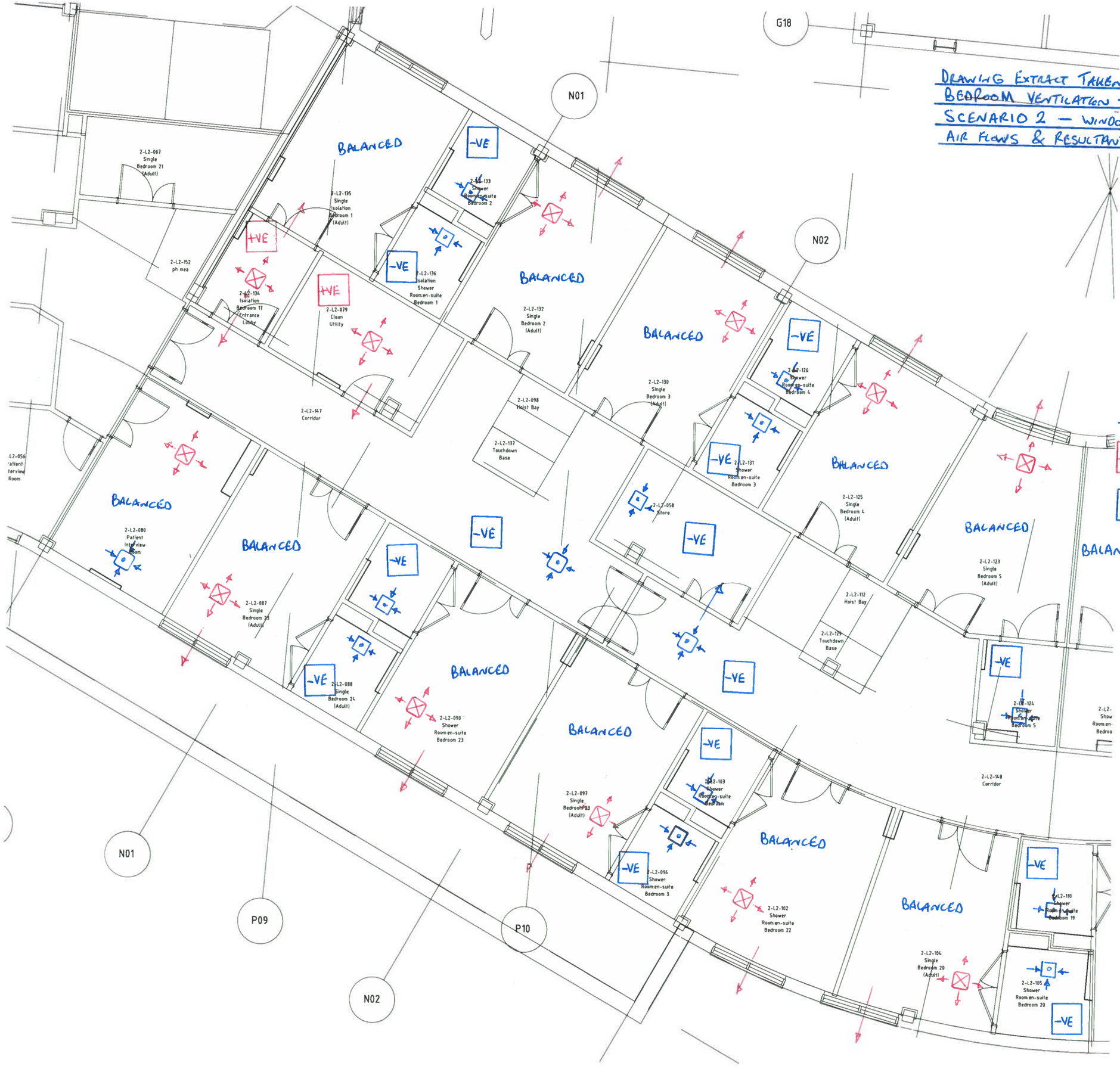
DRAWING EXTRACT TAKEN FROM LEVEL 2
~~BEDROOM VENTILATION~~ - MECHANICAL ONLY
SCENARIO 1 - WINDOWS CLOSED
AIR FLOWS & RESULTANT ROOM PRESSURES

LEGEND
- SUPPLY GRILLE
- EXTRACT GRILLE
- AIR FLOW.
- +VE - POSITIVE ROOM PRESSURE
- -VE - NEGATIVE ROOM PRESSURE
- BALANCED - BALANCED ROOM PRESSURE

G1547(57)SK01
RHSC & DCN

A43133429

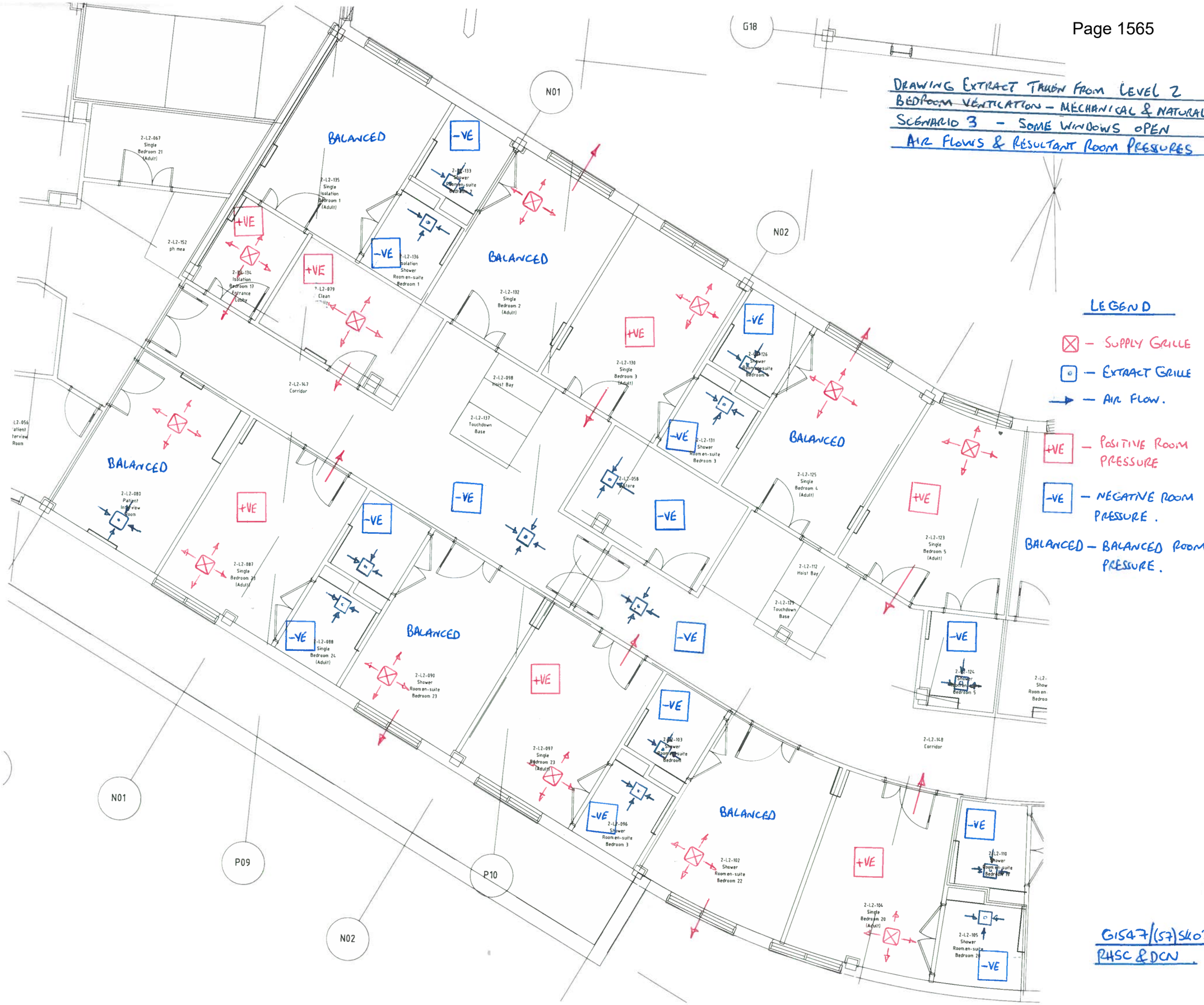
DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 2 – WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES



LEGEND.

- ⊠ – SUPPLY GRILLE
- ⊡ – EXTRACT GRILLE
- → – AIR FLOW
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE
- BALANCED – BALANCED ROOM PRESSURE

G1547/(57)SK02
RHSC & DCN.



DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 3 – SOME WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES

LEGEND

- ⊠ – SUPPLY GRILLE
- ⊡ – EXTRACT GRILLE
- → – AIR FLOW.
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE.
- BALANCED – BALANCED ROOM PRESSURE.

G1547/(57)SK03
RHSC & DCN.

A43133429

Re-Provision of RHSC and DCN at Little France

SECTION 4.10 SUSTAINABILITY AND ENERGY MODEL

September 2014 – 6TH ISSUE – FINAL TENDER DOCUMENTS

COMMERCIAL IN CONFIDENCE

SCHEDULE PART 6 (CONSTRUCTION MATTERS)
SECTION 4 (PROJECT CO'S PROPOSALS)
ITEM 10 (SUSTAINABILITY AND ENERGY MODEL)

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- 2.4 Scottish Technical Standards Section 6 Compliance
- 2.5 Scottish Energy Performance Certificate
- 2.6 Section 7 Compliance
- 2.7 Edinburgh Council Standard for Sustainable Buildings
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- 2.9 Ene 01 Reduction of Emissions BREEAM Assessment
- 2.10 Potable Water Consumption
- 2.11 Structural Design

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- 3.2 Modelling Methodology
- 3.3 Model Geometry from Architectural Information
- 3.4 Estimating Operating Hours and Occupancy Factors
- 3.5 Evaluating Internal Lighting Energy Use
- 3.6 Evaluating Energy Use for External Lighting
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- 3.11 Evaluating Energy Use for Lifts
- 3.12 Evaluating Energy Use for Server Rooms
- 3.13 Evaluating Energy Use CT Scanners/ X-rays
- 3.14 Evaluating Energy Use of Space Heating, Cooling, Fans and Pumps
- 3.15 Estimating Management Factors
- 3.16 Results

4.0 APPENDICES 20

4.1 Section 6 Compliance BRUKL Report
4.2 Scottish EPC
4.3 Edinburgh Standards for Sustainable Buildings S1 Form
4.4 Energy Model Inputs Templates – Financial Close
4.5 BREEAM Ene01 Compliance Checker Calculator
4.6 Part L2A 2010 Compliance BRUKL
4.7 Future Actions
4.8 CHP Utilisation Strategy

5.0 ELECTRONIC FILE ATTACHMENTS 32

5.1 RHSC DCN IHS Lothian Energy Calculations – Financial Close -IHSL-XX-XX-DC-4_10_1
5.2 RHSC DCN IHS Lothian Energy Model Input Data – Financial Close – IHSL-XX-XX-DC-4_10_2
5.3 RHSC DCN IHS Lothian Operational Energy Model – Financial Close – IHSL-XX-XX-DC-4_10_3

1. INTRODUCTION

The holistic design approach delivers a passive, energy efficient and green design. The passive design measures, energy efficiency initiatives and Low and Zero Carbon Generating Technology (LZCGT) reduce resource demand which delivers the required energy and carbon savings to meet and improve on the Building Standards.

In this Project, a holistic and integrated design process has been adopted from the very early design stage through to the completion of the Project as well as interfacing with thermal and efficiency testing procedures and metering strategies. The resulting design reflects an environmentally, socially, and financially responsible design, and includes fully integrated architecture and MEP systems to achieve high performance, sustainable, and optimised design. A Dynamic Simulation Modelling (DSM) tool has been employed to investigate various design strategies and proposals in order to achieve design targets. A 3D dynamic simulation model using the approved DSM software IES VE 2012 has been created to simulate the energy hierarchy and to demonstrate compliance with Scottish Building Regulations (Section 6) as well as to determine the BREEAM Ene01 credit achieved. The 3D dynamic simulation model is regarded as a live energy model, which has been and will continue to be regularly updated as the Project progresses through to handover. The milestones of the model update procedure will follow the stages of the Project. The compliance with the Scottish Building Regulations (Section 6) will be issued for building warrant and the Scottish EPC will be issued upon building handover. During the post Financial Close the model will be continually developed and updated to take account of developments to the design and to ensure that the design is maintained to meet the Project requirements.

In addition, the 3D IES VE model will be used in conjunction with metering strategies and thermal and efficiency testing procedure so that the simulation model can be calibrated simultaneously to bridge the performance gap between predicted simulation results and actual performance results based on measured data. The thermal efficiency of the building system will be monitored through a combination of measurement data derived from BMS and additional physical monitoring sensors. The BMS will be configured to provide complete continuous internal data on a zone basis and the metered data will be imported to the 3D simulation model for calibration and model updating purpose.

This document should be read in conjunction with Schedule Part 12 Section 4 – Energy Strategy.

The proposed building has been divided into 2 blocks as Block A and Block B, as shown in figures below. The model iterations have been used to educate the design process with building fabric U values and solar performance amended for optimum compliance.

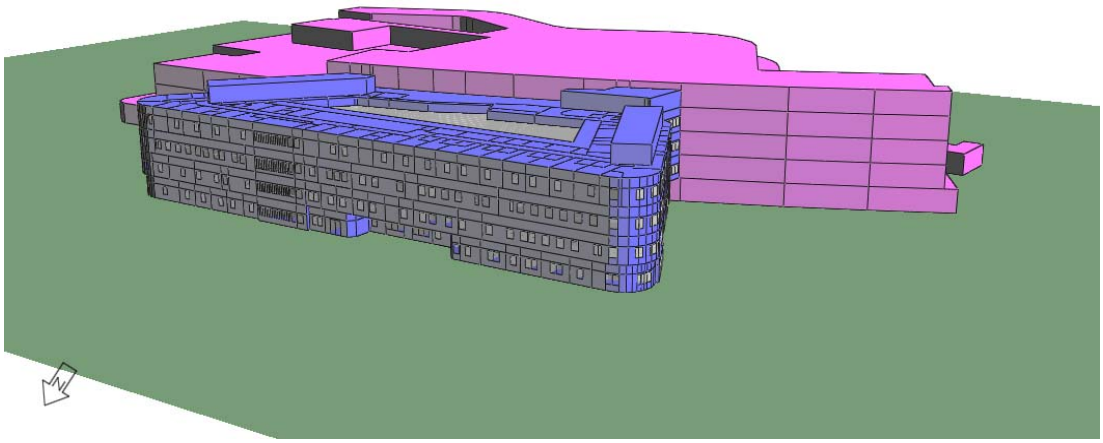


Figure 1: 3D Model of RHSC and DCN – Block A

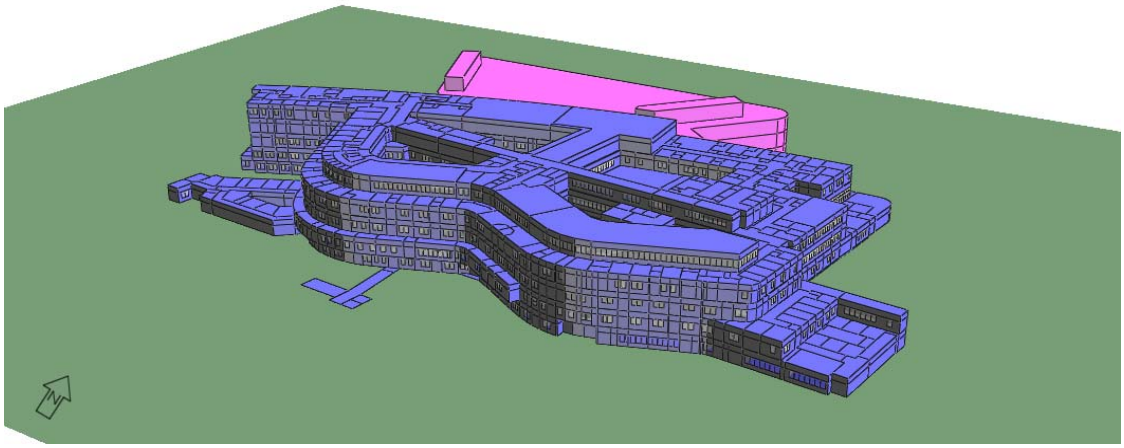


Figure 2: 3D Model of RHSC and DCN – Block B

2. SUSTAINABILITY

2.1 Introduction

The energy hierarchy approach in the design of the building for the facility allows the development to meet and better the carbon reduction requirements of Section 6 (Energy) of the 2013 Scottish Building Standards and achieve a Silver rating under Section 7 (Sustainability) of the 2013 Scottish Building Standards.

The development also meets the sustainability principles set out in the Edinburgh Standards for Sustainability as detailed in the document issued by the Edinburgh City Council "Edinburgh Standards for Sustainable Buildings - Section 3.2 Principles & Standards for Sustainable Building – Key Recommendation details the requirements to meet the standards".

The Project increases the overall energy efficiency of the development through energy efficient design and management. The energy strategy optimises the incorporation of energy efficiency measures into the facility and meets the 2013 Scottish Building Standards carbon reduction requirements. An IES model has been set-up for 2013 Scottish Technical Standards for Section 6 Compliance and EPC. In order to achieve the ENE1 BREEAM credit the IES model has also been simulated using England and Wales Part L2A 2010 methodology.

We will provide a thermally comfortable environment maximising available natural daylighting where the room type and geometry permits and minimising environmental impact, at construction stage and through the facility's lifecycle.

The energy hierarchy adopts passive design features to lower the baseline energy demand, utilises energy efficient building systems and controls before adopting low and zero carbon technologies to reduce carbon emissions further.

This holistic approach in designing the facility and its systems provides reliable low energy and low carbon solutions, which complement the healthcare environment and the needs of the facility users.

2.2 Energy & Resource Conservation

Our design achieves energy and resource conservation through the following prescriptive energy and carbon reduction. Please refer to the document "4.11 – BREEAM Assessment – Issue 2" for additional information on meeting the requirements for BREEAM Ene01.

- 8 credits for Ene01 reduction of emissions in the BREEAM assessment have been achieved (demonstrated through Part L2A 2010 assessment using the BREEAM Ene01 calculator, as explained in the following sections of this document),
- 23.21% of the Sites energy is provided by low carbon and renewable energy sources – Natural Gas Combined Heat and Power (CHP) (derogation submitted regarding the use of Natural Gas CHP in place of a renewable technology) and Solar Photovoltaic Panels. Please refer to electronic document "RHSC DCN IHS Lothian Energy Calculations – Financial Close" for the calculation.
- Scottish Technical Standards 2013 Section 6 Compliance
- Scottish Technical Standards Section 7
- Aspect Silver Level 1: carbon dioxide emissions (Building Emission Rate) are to be 28.6% lower than the Target Emission Rate (TER) set by the 2010 standards. Please refer to electronic document of "RHSC DCN IHS Lothian Energy Calculations – Financial Close" for the calculation
- Edinburgh Council Standard for Sustainable Buildings
- The delivered energy usage for development has achieved design target proposal at Financial Close of 49 GJ/100m^3 of EnCO2de which is less than 55 GJ/100m^3, hence it has met the requirement set by the Scottish Health Technical Memorandum 07-02.

2.3 Energy Approach

2.3.1 Passive Design

The following passive design measures are included

- High performance façade solution with low U-Values and solar transmittance. Details of U-values and solar transmittance refer to the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close".
    - External Wall – 0.20 w/m^{2}k
    - Ground Floor – 0.20 w/m^{2}k
    - Roof – 0.15 w/m^{2}k
    - Window – 1.60 w/m^{2}k
    - Rooflight – 2.00 w/m^{2}k
    - G-Value Window – 0.64 (Block A)
      0.50 (Block B)
    - Window Light Transmission – 0.76
- Low air permeability - the air permeability target value used in the model is 5.
- Size of glazing openings has been examined and proposed through early development with the architect. The proposed glazing strategy will vary according to room activity for each space. The main occupied areas glazed openings are based on the architects practical knowledge of fenestration and our experience of solutions that achieve the balance of natural daylight and reducing unwanted solar gains. Solar controlled glazing is applied to the east, south and west facing facades to reduce the risk of overheating.
- Consideration of building orientation has been taken into account during the early building design process. Due to the shape and complexity of the building geometry and with the repetitiveness of the glazing area along all façades, adjustments to the building orientation will not have a large impact on improving the building energy performance. For example, when rotating the building by 45 degrees, the total energy consumption of some rooms have decreased, but increases in other rooms and the total energy consumption of the whole building has not changed greatly. As mentioned above, the glazing area was determined by the room activity of each space and the balance of glazing proposed does not merit solar shading devices to be used in the building design.
- Thermal mass has been considered as a strategy, which has been achieved through the concrete slab construction. In order to achieve maximum heat absorption, the surface is proposed to be designed as:
    - be 100-200mm thick to provide sufficient mass for optimal heat storage
    - be insulated underneath the slab or on the exterior face of external walls
- Natural ventilation has been incorporated and working in conjunction with mechanical ventilation (mixed mode ventilation) for perimeter rooms in the facility. The natural ventilation is to be operated through openable windows. The strategy is to use natural ventilation whenever it is feasible or desirable, to maximize comfort. To avoid the risk of over cooling, change-over designs have been adopted, where the facility "changes-over" between natural ventilation and mechanical ventilation on a seasonal or even daily basis. No pollution sources have been identified nearby the Site and additionally the building site is located in a suburban tree lined environment, therefore the proposed natural ventilation strategy is feasible. Details of rooms designed with mixed mode ventilation refer to the electronic document "RHSC DCN IHS Lothian Operational Energy Model Input Data – Financial Close".

2.3.2 Energy Efficiency

The following energy efficient building systems are included and for details of the values assigned in the simulation model; refer to the electronic document “RHSC DCN IHS Lothian Operational Dynamic Energy Model Input Data – Financial Close”. For technical information of how these energy efficiency systems operate in the building refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”.

- Reduced lighting power densities / high efficiency fluorescents and the use of 50% LED lighting;
- Presence detection – auto on/off sensors are applied; refer to the electronic document “RHSC DCN IHS Lothian Operational Energy Model Input Data – Financial Close”;
- Low specific fan powers refer to the electronic document “RHSC DCN IHS Lothian Operational Energy Model Input Data – Financial Close”;
- Mechanical ventilation units incorporating heat recovery minimum 60%;
- Variable speed pumps with multiple pressure sensors on all main circulating heating and cooling pumps;
- Building controls to ensure the optimum performance of the systems; refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”;
- Metering and sub-metering to allow better management of energy uses all thermal and electrical energy to be sub-metered; refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”;
- Low loss transformers and power factor correction >0.95 refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”;
- Free cooling chillers using air cooled chillers refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”.

2.3.3 LZCT

The following low and zero carbon measures are included.

- Gas fired Combined Heat and Power (CHP), detailed as the table below:

Table 1 – Combined Heat and Power detail

Combined Heat and Power	
Fuel	**Natural Gas**
Performance Rated Output (%)	100
Heat Output (kW)	654
Thermal Efficiency (%)	44
Electrical Efficiency (%)	40
Performance Minimum Output (%)	50
Thermal Efficiency (%)	48
Electrical Efficiency (%)	36.5
Profile	G1547_CHP_Annual

The model allows 1 day CHP downtime every 6 months for maintenance. For details of how CHP is operated in different seasons and loads refer to Appendix 4.8 CHP Utilisation Strategy.

- Solar Photovoltaic’s (PV) providing electricity for use within the facility, detailed as the table below:

Table 2 – Photovoltaic Panels detail PV setup

Photovoltaic Panels	
Area (m2)	800
Type	Polycrystalline
Nominal Efficiency (%)	15
Nominal Cell Temperature (oC)	45
Temperature Coefficient	0.004
Electrical Conversion Efficiency (%)	95
Inclination Angle (deg)	30
Angle from North (deg)	180.0 (South)

2.4 Scottish Technical Standards Section 6 Compliance

Section 6 (Energy) of the Scottish Building Regulations aims to ensure that effective measures for the conservation of fuel and power are incorporated in buildings. In addition to limiting energy demand through specification of the performance of building fabric and building services, a carbon dioxide emissions standard (Standard 6.1) obliges designers of new buildings to consider building performance in a holistic manner.

The Scottish Building Regulations Technical Standards Section 6 (Energy) details the calculation methodology and the modeling has been carried out in accordance to the methodology and the modeling has been carried out in accordance to the methodology using approved DSM software IES.

The TER with the benchmark applied must be achieved but the inclusion of LZC technologies is not mandatory.

UK calculation tools conform with European Directive 2002/91/EC and are to be used with the carbon dioxide emissions standard and in the production of Energy Performance Certificates (EPCs). For non-domestic buildings, the National Calculation Method (NCM) is used.

Dynamic Simulation Model (DSM) primarily applies to building analysis software that can model the thermal dynamic response of buildings. These software tools can be used both to demonstrate compliance with Standard 6.1 of the Building Regulations and for producing EPCs.

Approved software IES VE 2012 demonstrates that Project Co will achieve compliance with Section 6 of the Scottish Technical Standards refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”.

Appendix 4.1 of this document includes the Section 6 BRUKL report. The table below summarises the results of the compliance analysis:

Table 3 Summary results of the Section 6 carbon dioxide emission

Block	Section 6 Target Emission Rate (TER) kgCO2/m^2	Section 6 Building Emission Rate (BER) kgCO2/m^2	Section 6 Compliance?
A	45.9	31.1	Yes
B	37.4	27.0	Yes

2.5 Scottish Energy Performance Certificate

The Energy Performance Certificate (EPC) has been introduced through European legislation and the Energy Performance of Buildings Directive (EPBD). The certificate provides an illustration of the energy efficiency of a building based on standard assertions for occupation and use. The EPC shows the rating range for a building as **A-G**, with **A** being the most efficient.

Standard 6.9 of the Scottish Technical Standards note that every building must be designed and constructed in such a way that:

a. an energy performance certificate for the building is affixed to the building.

b. the energy performance certificate is displayed in a prominent place within the building.

The certification must be carried out using the Directive compliant methodology and the calculation tool, which was used to assess compliance with Standard 6.1.

Using the approved software, IES VE 2012 predicts that Project Co will achieve a minimum EPC rating of C.

Appendix 4.2 of this document includes the draft EPC.

2.6 Section 7 Compliance

The Energy Strategy allows the development to comply with Section 7 Aspect Silver 1 Level.

The standard sets out to encourage developments to go beyond the minimum standards of sustainability required within the Building Standards Sections 1 to 6. Details refer to *Technical Handbook: Non-domestic – Sustainability* for additional guidance on the ratings applicable.

The aim of the standard is to:

- Recognise the level of sustainability already achieved, as compliance with the 2010 regulations is the benchmark level.
- Encourage more demanding sustainable standards.
- Encourage consistency between planning authorities that use supplementary guidance to promote higher levels of sustainability.

The standard will provide a sustainability "label" to the building, which will require to be displayed prior to completion as per an EPC certificate.

A building at this first optional upper level (in this aspect only) should meet all the standards in sections 1 – 6 that apply to the building for the bronze level and in addition, the building should comply with the following:

Carbon dioxide emissions – Under the guidance to standard 6.1, carbon dioxide emissions (Building Emission Rate) is to be 28.6% lower than the Target Emission Rate (TER) set by the 2010 standards. To establish this, the TER from NCM calculation should be multiplied by 0.714, to give a revised figure that the BER should not exceed.

Approved software IES VE 2012 demonstrates that Project Co will achieve compliance with Section 6 of the Scottish Technical Standards.

Appendix 4.1 of this schedule includes the Section 6 BRUKL report. The table below summarises the results of the compliance analysis:

The Energy Strategy allows the development to comply with Section 7 Aspect Silver 1 as summarised below:

The two models Block A and B results have been multiplied by an appropriate weighting factor based on the building floor area to calculate the average carbon emissions figures from Block A and B results. Refer to the document of "RHSC DCN IHS Lothian Energy Calculations – Financial Close".

Table 4 Summary of the average Section 6 compliance results for the overall building with appropriate weighting factor applied.

Block	Section 6 Target Emission Rate (TER) kgCO2/m2	Section 6 Building Emission Rate (BER) kgCO2/m2	Section 7 Improvement (Target 28.6%)
All	39.10	27.82	28.84%

2.7 Edinburgh Council Standard for Sustainable Buildings

The aim of the Edinburgh Standards for Sustainable Building is to promote sustainable development that mitigates against climate changes caused by carbon emissions.

Planning application now have to be accompanied by a sustainability statement which details how the applicant proposes to meet the sustainability standards. The standards are divided according to six key principles/themes;

1. Design quality
2. Inclusive, safe and healthy environments
3. Reduction of climate change and increase of renewables
4. Use of sustainable resources and materials
5. Reduction of pollution and increase of recycling
6. Improvement in sustainable construction and operation

To ensure the standards are met the sustainability statement poses a series of questions under each principle, with the applicant's response to the each question being evaluated and scored. The applicant must reach a minimum threshold of points for each section/principle with the scoring system based generally on whether the standard is met or not. The minimum threshold of points that must be obtained can vary depending upon the type, location and importance of the proposed development.

There are however, two mandatory standards under the third principle which have been met.

- CO^2 emissions from the development are at least 5% lower than the Target Carbon Dioxide Emissions Rating (TER).
- A minimum of 10% of the energy requirement for the development is to be supplied by renewable energy generation.

Project Co have provided input to the Edinburgh Standards for Sustainable Building S1 form. This sustainability statement has now been submitted to the City of Edinburgh Council to discharge planning condition No. 1(j). Please refer to Appendix 4.3 Edinburgh Standards for Sustainable Building S1 form.

Derogation has been submitted regarding the use of natural gas fuelled CHP in place of renewable technology.

2.8 Scottish Health Technical Memorandum 07-02

The Scottish Health Technical Memorandum 07-02 (EnCO2de) requires that the delivered energy usage for the development is less than 55 GJ/100m^3. The Financial Close Energy Model has achieved 49 GJ/100m^3.

Compliance has been achieved and this is confirmed by the operational models provided which have been combined with additional energy consuming systems not included within the model, namely – lifts, catering, freezers and external lighting.

The combined energy model results are detailed in the electronic document ‘RHSC DCN IHS Lothian Operational Energy Model – Financial Close’.

The allowances and operational details, as entered into the dynamic model, are detailed in the electronic document ‘RHSC DCN IHS Lothian Energy Model Input Data-Financial Close’ and Appendix 4.4 ‘Energy Model Inputs Templates – Financial Close’.

2.9 Ene01 Reduction of Emissions BREEAM Assessment

The energy strategy for the development achieves a minimum of 6 credits for issue Ene 01 Reduction of CO_2 emissions.

The following outputs have been assessed for the calculation of the credit:

- Energy demand for the facility.
- Energy consumption for the facility.

- CO_2 emissions for the facility.

Using the above an Energy Performance Ratio for New Constructions (EPR_{NC}) is generated for the development which is then judged against benchmark scales using the English Building Regulations Approved Document Part L 2A.

The Financial Close Energy Model has achieved 8 credits and demonstrated a 25% reduction in CO_2 emissions under Part L2A 2010 arising from regulated building energy consumption. Refer to Appendix 4.5 'BREEAM Ene01 Compliance Checker Calculator" for details. A weighted factor that has been applied to both Block A and B Part L results to determine the 25% reduction.

Refer to document '4.11 – BREEAM Assessment" for further information on BREEAM credits.

2.10 Potable Water Consumption

Potable water consumption for the Facilities will not exceed 170,000 litres/bed/annum.

As per the SHTM 01-01 Water Safety for Healthcare Premises the development, construction, installation and maintenance of hot and cold water supply systems are vital for public health.

Healthcare premises are dependent upon water to maintain hygiene and a comfortable environment for patients and staff, and for clinical and surgical care.

Since the interruption of water supply can disrupt healthcare activities the design of systems must ensure that sufficient reserve water storage is available to minimise the consequence of disruption, while at the same time ensuring an adequate turnover of water to prevent stagnation in storage and distribution vessels.

Water provision to the Project will be fully compliant with the SHTM 04-01 and will achieve two credits on BREEAM Wat-01 Water Consumption. The core water provision will be maintained with the improvements and water saving measures based on:

- Reduced water consumption through specification of water efficient fittings. The fittings will allow the Project to achieve Performance Level 2 within BREEAM credit Wat-01.
- Metering of water consumption and provision of leak detection systems to achieve BREEAM credits Wat-02 and Wat-03.
- Motorised valves on water distribution to toilets controlled via presence detectors to minimise water wastage i.e. room occupied water available, room unoccupied water not available to achieve BREEAM credit Wat-03.
- Water efficient fittings in line with BREEAM credit Wat-01.

Please refer to "*4.11 – BREEAM Assessment*" for further explanation of BREEAM credits.

3. OPERATIONAL ENERGY MODEL

3.1 Introduction

This section details the methodology and results of the Energy Model. The results detailed in this document are based on a combination of actual data, NCM values and a competent engineer's knowledge of building services. The model has used actual equipment efficiencies proposed for the facility. However, these figures should not be deemed to give 100% accuracy and thus should not be used for detailed energy reference. The data detailed in this document will be a guide only to evaluate the actual energy consumption of the facility and may include data collected from analysis of previous projects.

The results given in this report are based on the output of a complex, dynamic thermal model which takes account of predicted data; relating to plant and systems, published data and theoretical judgement with regards to the following design criteria; building orientation, geometry and fabric, climate data, internal gains and occupancy profiles, plant efficiencies and operational hours. Although actual data and design parameters have been used during this detailed analysis, there is still a large amount of uncertainty. Certain information that will affect the 'true' energy consumption of the facility include, occupancy times, behaviour characteristics of the occupants and detailed information on services. The outputs from the model contain theoretical and actual data and indicate a better indication of the thermal performance of the facility throughout the year compared to the facility based on NCM values.

In addition to these assumptions and any stated facility usage characteristics, the importance of user diligence should be highlighted as the simulation is modelled on this principal. Diligent use of space involves users not leaving equipment (computers), heating and lighting switched on all the time.

Dynamic Simulation Models (DSM) contain inherent simplifications and assumptions compared to the way that a real building would operate. For example, DSM use a simplified approach for the heat flow through the ground floor slab with an assumed ground temperature, U-values are static, when they are actually dynamic and change with temperature and other climatic conditions and use standard weather data sets based on historic weather data, which will be different from the conditions in any given year that the facility is operating.

3.2 Modelling Methodology

The general procedure for this investigation comprises the creation of a 3D geometrical model of the proposed building using approved Integrated Environmental Solutions Virtual Environment 2012 (IES VE 2012). This is referred to as IES.

The methodology set out proposes that the energy use of complex systems heating, cooling, humidification, ventilation systems should be evaluated using some form of dynamic simulation model (DSM).

DSM should provide a better estimate of energy use compared to steady state calculations as they take into account more of the complexities of the variation in energy use across the year.

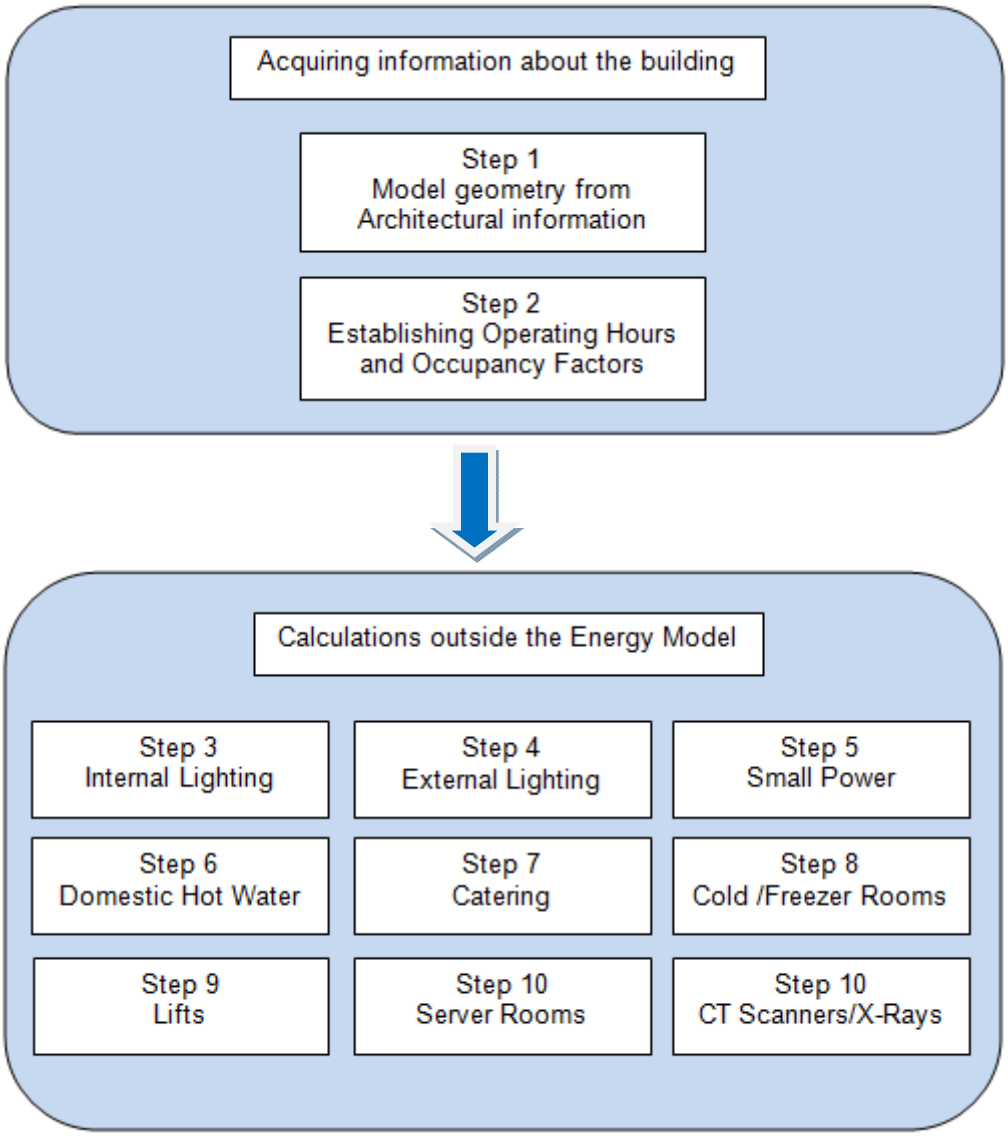
The model has been zoned and internal conditions (heat gains and environmental controls) and constructional building elements attributed to the model. This building model allows simulation results to be obtained for:

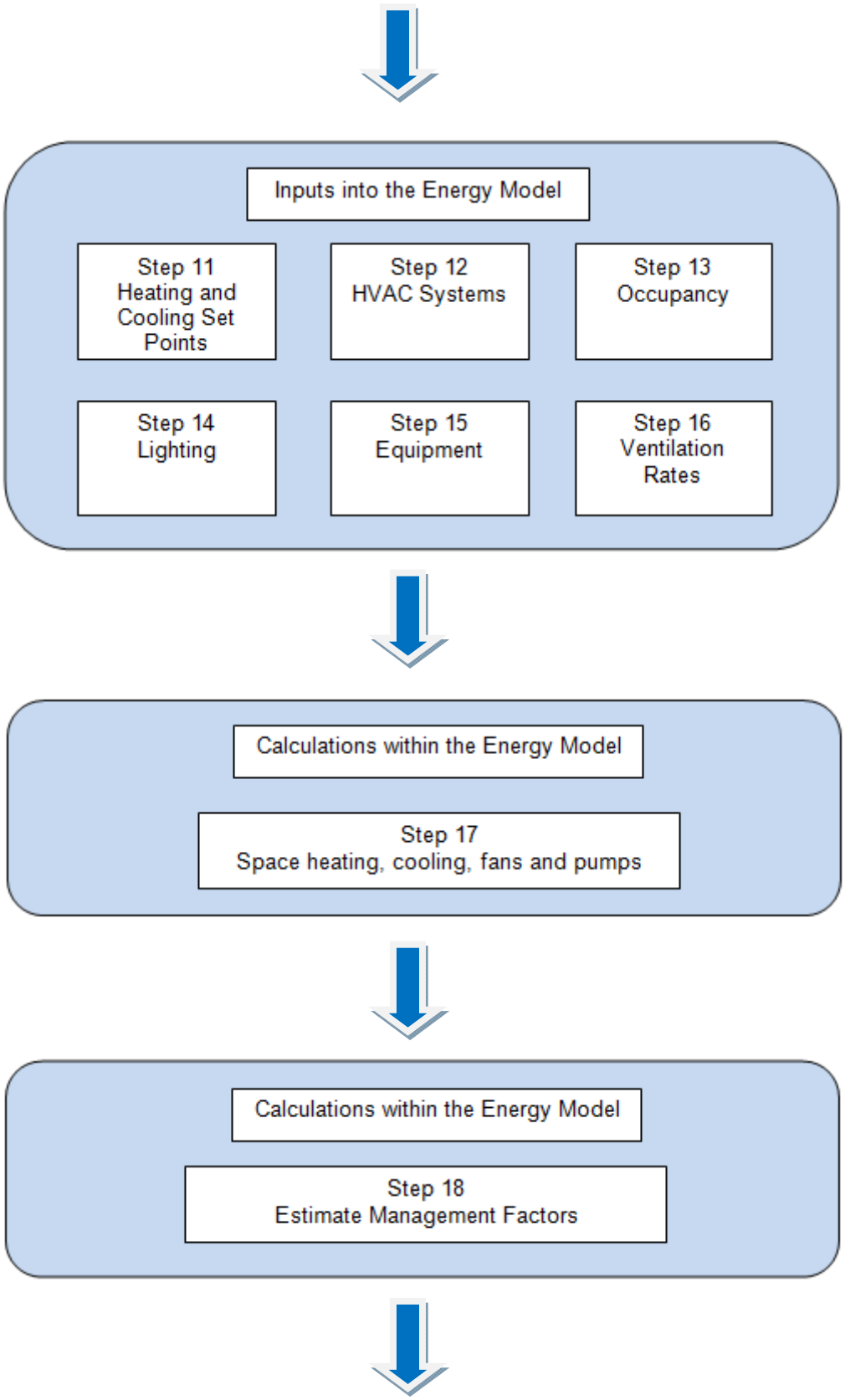
- Total natural gas
- Total electricity usage
- Boiler Loads
- CHP generated heat
- DHW heating demand
- Total Building energy

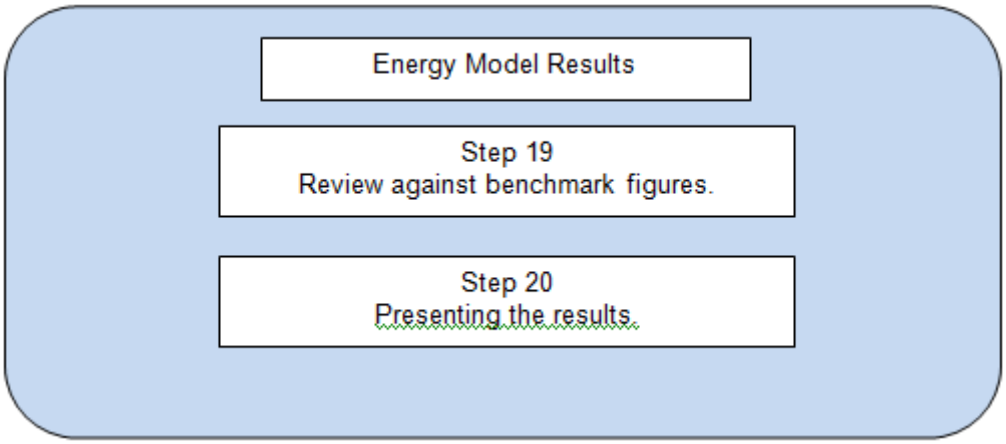
- Total carbon emission
- Model Construction

A 3D model of the design building has been constructed within IES VE 2012. The building model zoned into separate areas dependant on function and building type.

The flow chart below details the methodology approach adopted to evaluate the operational energy of the building.




Inputs into the Energy Model
Step 11
Heating and Cooling Set Points
Step 12
HVAC Systems
Step 13
Occupancy
Step 14
Lighting
Step 15
Equipment
Step 16
Ventilation Rates
Calculations within the Energy Model
Step 17
Space heating, cooling, fans and pumps
Calculations within the Energy Model
Step 18
Estimate Management Factors



3.2.1 Model Attribution

In order to collect accurate data, the model has been fully attributed with respect to it's building elements, climatic data and internal conditions, as detailed in the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close" and Appendix 4.4 'Energy Model Inputs Templates – Financial Close'.

3.2.2 Building Elements

Each building element is specified with a material construction of close approximation to the design building. Construction elements have been developed from the proposed architectural details, as shown in the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close".

Another important parameter that has been considered regarding construction details is the glazing solar transmission value (g-value). The g-value is the sum of the direct and reflected solar radiation through glazing. The lower the g-value the lower the solar penetration. The g-value used in the model for north facing glazing (Block A) has a value of 0.64 and the remainder of the glazing on the other facades (south, east and west facing) uses glazing with a g-value of 0.5 (Block B).

3.2.3 Climatic Data

The facility performance has been calculated as it is exposed to climate, occupants and conditioning systems to produce predictions of the temperatures within the space. In order for these predictions to be as precise as possible it is vital that accurate weather data is selected for the simulation.

The simulation weather data used is CIBSE Edinburgh TRY weather file.

It must be noted that variations in weather conditions will have implications on the energy used within the facility. A severe winter is likely to result in increased heating demand on the facility.

3.2.4 Internal Conditions

The main building type has been modelled as a hospital. There are NCM (national calculation methodology) internal conditions available within the simulation that allows figures for the occupants, lighting, miscellaneous, auxiliary ventilation and infiltration rates to be applied to the building. The templates applied to each zone depends on the type of building and the activity within the space, as detailed in the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close" and Appendix 4.4 'Energy Model Inputs Templates – Financial Close'

A detailed analysis was required to ascertain accurate data on the energy loads of the facility and many profiles were created to simulate "actual" internal conditions.

A profile details the time and diversity factor of the internal gain in question and has been used to simulate activity within a room, dependant on the day of the week.

3.3 Model geometry from Architectural information

The model is based on the architectural revit geometry.

The model geometry has been divided into two blocks as Block A and Block B, as shown in figures 1 and 2 in Section 1 of this document.

3.4 Establishing Operating Hours and Occupancy Factors

The hours of operation have been estimated by establishing the occupancy or operating hours of the facility and the way that the facility is to be managed. Consideration has been taken in terms of determining more realistic hours of occupation and the likely run-hours of the plant and equipment in the building e.g. extended hours of operation.

The results detailed in this schedule have been based on a combination of actual data, NCM values and a competent engineer's knowledge of building services, as detailed in the electronic document of 'RHSC DCN IHS Lothian Energy Model Input Data – Financial Close' and Appendix 4.4 Energy Model Inputs Templates – Financial Close.

3.5 Evaluating Internal Lighting Energy Use

Low energy light fittings and the lamp sources have been selected to meet the overall lighting design requirements. We have utilised Light Emitting Diodes (LED) sources within 50% of the luminaries with high efficiency T5 Eco lamps (except RA90 requirements) being used elsewhere. Project Co. lighting manufacturer has confirmed the internal lighting power density figures (W/m^2/100lux), provided for all room types are listed in the electronic document of 'RHSC DCN IHS Lothian Energy Model Input Data – Financial Close'

3.6 Evaluating Energy Use for External Lighting

The proposed external lighting scheme has been used to determine the number of light fittings. The total watts for the external lighting has been calculated based on the proposed light fittings detail. Refer to PCP document "Section 4.9 Mechanical & Electrical Engineering" for energy efficiency of the luminaires. To evaluate the likely number of hours that the lights shall operate over a given year we have used both the CIBSE Edinburgh Test Reference Year (TRY) and Design Summer Year (DSY) to determine the number of daylight hours for the year. This has been determined by analysing the sunrise and sunset hours. We have then calculated the total annual energy use for external lighting utilising this data. The calculation is detailed in the electronic document of "RHSC DCN IHS Lothian Operational Energy Model – Financial Close".

3.7 Evaluating Energy Use for Small Power

The small power energy allocation has been based on estimated load densities and operational hours. Small Power includes power utilised by small medical equipment, office equipment, communal small power (e.g. printers, TVs as well as refrigerators and vending machines). The figures are detailed in the electronic document of "RHSC DCN IHS Lothian Operational Energy Model – Financial Close".

3.8 Evaluating Energy Use of Domestic Hot Water

We have used figures from CIBSE Guide G Public Health Engineering (CIBSE, 2004) Table 2.10, which includes daily hot water use for various types of buildings. We have taken an average figure of 155 L/person/day based on the different mix of hospital building wards. This figure has been selected based on engineering knowledge and experience of similar projects. We have applied this daily DHW figure to the number of beds in the proposed facility. We have also allowed for catering DHW, with the assumption that 3 meals will be provided per day.

We have developed the DHW variation profile based on engineering judgement of how we expect the facilityto operate. Peak DHW usage is expected to occur during the morning and evenings when showers are assumed to be the peak DHW demand. The calculation and the developed variation profile is detailed in the electronic document of "RHSC DCN IHS Lothian Operational Energy Model – Financial Close".

3.9 Evaluating Energy Use for Catering

The proposed catering facilities will be all electric and we have been working with the catering supplier to evaluate the electrical energy use of the equipment. The figures are detailed in the electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close”.

3.10 Evaluating Energy Use for Freezer Rooms

There are two freezer rooms within the Facility, each with a 5m floor area. The units shall have proprietary cooling equipment. We have evaluated the energy use based on the estimated freezer load and efficiency. The electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close” details the calculation method we have employed to evaluate the energy use.

3.11 Evaluating Energy Use for Lifts

Close dialogue with the proposed lift manufacture has been conducted in order to evaluate the energy use of the lifts. The electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close” details the calculation method we have employed to evaluate the energy use.

3.12 Evaluating Energy Use for Server Rooms

Generic loads have been utilised for plant sizing and are the basis of evaluating the energy use for Server Rooms detailed in the electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close”.

3.13 Evaluating Energy Use MRI, CT Scanners/X-rays

The units will be provided with proprietary cooling equipment. Generic loads have been utilised for plant sizing and are the basis of evaluating the energy use.

3.14 Evaluating Energy Use of Space Heating, Cooling, Fans and Pumps

The internal conditions for the model allow figures for the occupants, lighting, miscellaneous, auxiliary ventilation and infiltration rates for the facility. The thermal template applied to each zone will depend on the room activity. The Energy Model calculates the energy consumption for space heating, cooling, fans and pumps. The electronic document of ‘RHSC DCN IHS Lothian Operational Energy Model – Financial Close’ details the model inputs.

3.15 Estimating Management Factors

The facility will be well managed, with the systems being well maintained, controls calibrated, energy saving features being applied and the energy use is being monitored and managed. In practice, there might be possible variations in operation that may result in higher energy use. Hence, an overall management factor can be applied to the results to give a representation of the energy use of the facility based on its management during its operation.

The table below details three different management characteristics that are assumed:

Table 5: Management Factors

Excellent Management	Average Management	Poor Management
1.00	1.05	1.10

3.16 Results

RHSC, Little France Financial Close: excellent management (Management Factor=1)

Heated Volume (100/m^3)	1066
Operational Energy Prediction Summary	
From Dynamic Thermal Model Results	Total MWh
Boilers Heating (MWh)	562.15
Boilers DHW (MWh)	89.86
Chillers (MWh)	12.58
Fans & Pumps (MWh)	1381.19
Heat Rejection Fans & Pumps (MWh)	6.09
PV Generated Electricity (MWh)	-97.73
CHP Gas Usage (MWh)	4731.95
CHP Generated Electricity (MWh)	-1892.78
Lights Electricity (MWh)	1459.86
Equipment Electricity (MWh)	5888.77
From spreadsheet calculation	
Lifts (MWh)	859.06
Catering (MWh)	1314.00
Freezer (MWh)	9.86
External Lighting (MWh)	88.20
Total gas consumption (MWh)	5383.95
Overall grid electricity (MWh)	1120.47
Target Delivered Energy Usage (GJ/m3)	55
Operational Energy Prediction (GJ/m^3)	49

4. APPENDICES

4.1 Section 6 Compliance BRUKL Report

Apache Specification Information

Scottish Building Regulations 2010 Section 6 Guidance
Carbon Dioxide Emissions, U-Values, Air Permeability, and HVAC

Project name

Block_A_Section_6_sim000

Date: Mon Aug 25 23:19:43 2014

Administrative information

Building Details

Address: City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

Compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Agent details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

1- Predicted CO2 emission from proposed building

1.1	Calculated CO2 emission rate from notional building	89.8 KgCO2/m2.annum
1.2	Improvement factor	0.51
1.3	LZC benchmark	0.15
1.4	Target CO2 Emission Rate (TER)	45.9 KgCO2/m2.annum
1.5	Building CO2 Emission Rate (BER)	31.1 KgCO2/m2.annum
1.6	Are emissions from building less than or equal to the target?	BER =< TER YES

2- The performance of the building fabric and the building services systems

2.1 How do the U-values compare with Section 6 guidance?

The building follows guidance in Scottish Building Regulations 2010

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Limit}$	$U_{i\text{-}Calc}$	Surface where this maximum value occurs*
Wall	0.27	0.2	0.7	0.2	TEMP0018:Surf[4]
Floor	0.22	0.2	0.7	0.2	1___0000:Surf[0]
Roof	0.2	0.15	0.35	0.15	3CRR0002:Surf[0]
Windows**, roof windows, and rooflights	2	1.83	3.3	2	3TRM0000:Surf[0]
Personnel doors	2	-	3.3	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	1.5	-	No Vehicle access doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [W/(m2K)]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [W/(m2K)]
$U_{i\text{-}Limit}$ = Limiting individual element U-values [W/(m2K)]
$U_{i\text{-}Calc}$ = Calculated individual element U-values [W/(m2K)]

* There might be more than one surface exceeding the limiting standards.
** Display windows and similar glazing are not required to meet the standard given in this table.

2.2 Air permeability

Air Permeability	This building's value
m3/(h.m2) at 50 Pa	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

2- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

4- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	**Supply & extract SFP [W/(l/s)]**	**Exhaust SFP [W/(l/s)]**
1 - Office	1.5	-
1 - WC	-	0.6
1-D1-001 - DSR	-	0.6
1-D1-002 - Consult Exam	1.5	-
1-D1-004 - Linen	1.5	-
1-D1-005 - Consult Exam	1.5	-
1-D1-010 - Dirty Utility	1.5	-
1-D1-011 - WC	-	0.6
1-D1-012 - Shower Room	-	0.6
1-D1-013 - Clean Utility	1.5	-
1-D1-014 - Consult Exam	1.5	-
1-D1-016 - Consult multi-disciplinary	1.5	-
1-D1-017 - Consult Exam	1.5	-
1-D1-018 - Consult Exam Ophthalmology	1.5	-
1-D1-019 - Consult Exam ENT	1.5	-
1-D1-020 - Consult Exam Cleft	1.5	-
1-D1-021 - Consult Exam Cleft	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
1-D1-022 - Consult Exam ENT	1.5	-
1-D1-023 - Consult Exam ENT	1.5	-
1-D1-027 - Sub-waiting play Nurse Base	1.5	-
1-D1-027 Sub waiting play/Nurse Bay	1.5	-
1-D1-030 - Nappy Change	-	0.6
1-D1-031 - Equipment General Store	-	0.6
1-D1-032 - WC	-	0.6
1-D1-038 - WC	-	0.6
1-D3-004 - DSR	-	0.6
1-D3-006 - CE Orthoptic	1.5	-
1-D3-007 - CE Orthoptic	1.5	-
1-D3-008 - CE Orthoptic	1.5	-
1-D3-009 - CE Orthoptic	1.5	-
1-D4-004 - Staff Office BP	1.5	-
1-D4-005 - Testing Clinic Room	1.5	-
1-D4-007 - Testing Clinic Room	1.5	-
1-D4-009 - Waiting Area	1.5	-
1-D6-001 - Office	1.5	-
1-D6-004 - Office	1.5	-
1-D6-006 - WC	-	0.6
1-D6-007 - WC	-	0.6
1-D6-009 - Office	1.5	-
1-D6-010 - Office	1.5	-
1-D6-011 - TIP St	-	0.6
1-D6-015 - Physio St	-	0.6
1-D6-016 - Management Office (4p)	1.5	-
1-D6-017 - AC Staff Office (9p)	1.5	-
1-D6-018 - DSR	-	0.6
1-D6-020 - Dietetic Clinic Room	1.5	-
1-D6-021 - Dietetic Clinic Room	1.5	-
1-D6-023 - Reception (2p)	1.5	-
1-D6-024 - WC Wheelchair	-	0.6
1-D6-026 - Linen	1.5	-
1-D6-031 - Dietetic Store	-	0.6
1-D6-037 - Physio Store	-	0.6
1-D6-038 - OT St	-	0.6
1-D6-041 - Store - OT	-	0.6
1-D6-042 - Pantry	-	0.6
1-D6-043 - Physio St	-	0.6
1-D6-044 - WC	-	0.6
1-D6-049 - Chg	1.5	-
1-D6-050 - Physio St	-	0.6
1-D6-051 - Chg	1.5	-
1-D6-052 - Physio St	-	0.6
1-D6-057 - WC Assist Chg	-	0.6
1-D7-001 - Assisted Bathroom	-	0.6
1-D7-002 - Dressings Doppler Store	-	0.6
1-D7-005 - Office	1.5	-
1-T1-003 - IT Node Room	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
1-T1-004 - IT Node Room	1.5	-
2 - Office	1.5	-
2 - Office	1.5	-
2-R1-001 - Staff Room	1.5	-
2-R1-002 - Office	1.5	-
2-R1-004 - Office	1.5	-
2-R1-007 - DSR	-	0.6
2-R1-008 - Store	-	0.6
2-R1-009 - Printer Photocopier Room	1.5	-
2-R1-010 - Office	1.5	-
2-R1-011 - Office	1.5	-
2-R1-012 - Office	1.5	-
2-R1-013 - WC	-	0.6
2-R1-014 - WC	-	0.6
2-R1-016 - WC	-	0.6
2-R1-017 - Office	1.5	-
2-R1-018 - Office	1.5	-
2-R1-019 - Office	1.5	-
2-R1-020 - Printed Photocopier Room	1.5	-
2-R1-024 - Office	1.5	-
2-R1-025 - Office	1.5	-
2-R1-029 - Office	1.5	-
2-R1-030 - Office	1.5	-
2-R1-031 - Office	1.5	-
2-R1-032 - WC Wheelcahir Access	-	0.6
2-R1-033 - WC	-	0.6
2-R1-034 - DSR	-	0.6
2-R1-035 - Printer Photocopier Room	1.5	-
2-R1-037 - Store	-	0.6
2-R1-038 - WC	-	0.6
2-R1-039 - Office	1.5	-
2-R1-040 - Office	1.5	-
2-R1-041 - Office	1.5	-
2-R1-042 - Office	1.5	-
2-R1-043 - Clinical Store	-	0.6
2-R1-044 - Printer Photocopier Room	1.5	-
2-R1-047 - Store	-	0.6
2-R1-048 - Office	1.5	-
2-R1-049 - Open Plan Desk Area	1.5	-
2-R1-049 - Open Plan Desk Area	1.5	-
2-R1-051 - Open Plan Desk Area	1.5	-
2-R1-052 - Open Plan Desk Area	1.5	-
2-R1-052 - Open Plan Desk Area	1.5	-
2-R1-052 - Open Plan Desk Area	1.5	-
2-R1-053 - Open Plan Desk Area	1.5	-
2-R1-054 - Open Plan Desk Area	1.5	-
2-R1-055 - Open Plan Desk Area	1.5	-
2-R1-055 - Open Plan Desk Area	1.5	-
2-R1-055 - Open Plan Desk Area	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
2-R1-055 - Open Plan Desk Area	1.5	-
2-T1-005 - IT Node Room	1.5	-
2-T1-006 - IT Node Room	1.5	-
3-H3-001 - Workshop/Tutorial Room 3	1.5	-
3-H3-002 - Control Room	1.5	-
3-H3-003 - Storage	-	0.6
3-H3-004 - Workshop/Tutorial Room 2	1.5	-
3-H3-006 - WC	-	0.6
3-H3-007 - WC	-	0.6
3-H3-008 - WC	-	0.6
3-H3-010 - Workshop/Tutorial Room 1	1.5	-
3-H3-012 - DSR	-	0.6
3-H3-013 - Manual Handling Health and Safety	1.5	-
3-H3-014 - Practice Based Educators Office	1.5	-
3-H3-018 - Management/Admin Office	1.5	-
3-H3-019 - Computer Games	1.5	-
3-H3-020 - Lockers	-	0.6
3-K2-002 - Reception	1.5	-
3-K2-003 - Office (1p)	1.5	-
3-K2-004 - WC	-	0.6
3-K2-005 - WC	-	0.6
3-K2-006 - Lounge non-residents	1.5	-
3-K2-007 - WC	-	0.6
3-K2-008 - Family Room 1	1.5	-
3-K2-009 - En-suite 1	-	0.6
3-K2-010 - Family Room 3	1.5	-
3-K2-011 - En-suite 3	-	0.6
3-K2-012 - Family Room 2	1.5	-
3-K2-013 - En-suite 2	-	0.6
3-K2-014 - Family Room 4	1.5	-
3-K2-015 - En-suite 4	-	0.6
3-K2-016 - Family Room 5	1.5	-
3-K2-017 - En-suite5	-	0.6
3-K2-019 - Family Room (Acc 1)	1.5	-
3-K2-020 - En-suite Ac 1	-	0.6
3-K2-021 - Family Room 6	1.5	-
3-K2-022 - En-suite 6	-	0.6
3-K2-023 - Family Room 7	1.5	-
3-K2-024 - En-suite 7	-	0.6
3-K2-025 - Family Room8 (4p)	1.5	-
3-K2-026 - En-suite 8	-	0.6
3-K2-027 - Family Room 9	1.5	-
3-K2-029 - Family Room 10	1.5	-
3-K2-030 - En-suite 10	-	0.6
3-K2-032 - Family Room 11	1.5	-
3-K2-033 - En-suite 11	-	0.6
3-K2-033 - En-suite 11	-	0.6
3-K2-035 - Family Room 12	1.5	-
3-K2-036 - En-suite 12	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
3-K2-037 - Family Room 13	1.5	-
3-K2-038 - En-suite 13	-	0.6
3-K2-039 - Store	-	0.6
3-K2-040 - Family Room 14	1.5	-
3-K2-041 - En-suite 14	-	0.6
3-K2-042 - Laundry	1.5	-
3-K2-043 - En-suite 15	-	0.6
3-K2-044 - Family Room 15	1.5	-
3-K2-045 - Family Room 16 (4p)	1.5	-
3-K2-046 - En-suite 16	-	0.6
3-K2-047 - DSR	-	0.6
3-K2-048 - WC	-	0.6
3-K2-050 - Kitchen/Dining Room	1.5	-
3-K2-051 - Residents Day Room	1.5	-
3-K2-053 - Residents Play Room	1.5	-
3-K2-057-Store	-	0.6
3-K2-058 - En-suite 17	-	0.6
3-K2-059 - Family Room 17 (4p)	1.5	-
3-K2-060 - Family Room 2	1.5	-
3-K2-061 - En-suite 2	-	0.6
3-K2-062 - Family Room 18 (4p)	1.5	-
3-K2-062 - Family Room 18 (4p)	1.5	-
3-K2-062 - Family Room 18 (4p)	1.5	-
3-K2-065 - Family Room 19 (4p)	1.5	-
3-K2-066 - Family Room 20 (4p)	1.5	-
3-K2-067 - En-suite 20	-	0.6
3-K2-068 - En-suite 21	-	0.6
3-K2-069 - Family Room 21 (4p)	1.5	-
3-K2-071 - En-suite 22	-	0.6
3-K2-072 - Family Room 22 (4p)	1.5	-
3-K2-073 - Family Room 23 (4p)	1.5	-
3-K2-074 - En-suite 23	-	0.6
3-K2-075 - Family Room 24 (4p)	1.5	-
3-K2-076 - En-suite 24	-	0.6
3-K2-078 - Laundry	1.5	-
3-K2-080-Storage-refuse	-	0.6
3-K2-085 - Fundraisers	1.5	-
3-T1-004 - IT Node Room	1.5	-
3-T1-005 - I Node Room	1.5	-
4 - Atrium	1.5	-
4 - Plant	1.5	-
4 - Plant	1.5	-
G - Reception Area	1.5	-
G- WC	-	0.6
G-D1-0001 - Staff Room	1.5	-
G-D1-001 - Nappy Change	-	0.6
G-D1-003 - WC	-	0.6
G-D1-004 WC	-	0.6
G-D1-005 Store Room	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
G-D1-006 - DispHold	-	0.6
G-D1-007 - DSR	-	0.6
G-D1-009 - Store Plaster	-	0.6
G-D1-011 - Consult Exam	1.5	-
G-D1-012 - Consult Exam	1.5	-
G-D1-013 - Consult Exam	1.5	-
G-D1-014 - Consult Exam	1.5	-
G-D1-016 - Consult Exam Child Protection	1.5	-
G-D1-019 - Equipment General Store	-	0.6
G-D1-023 - Dirty Utility	1.5	-
G-D1-024 - Pantry	-	0.6
G-D1-031 - Clean Utility	1.5	-
G-D1-032 - Consult Exam	1.5	-
G-D1-034 - Consult Exam	1.5	-
G-D1-035 - Consult Exam	1.5	-
G-D1-036 - Consult Exam	1.5	-
G-D1-038 - Consult Exam	1.5	-
G-D1-039 - Consult Exam	1.5	-
G-D1-040 - Consult multi-disciplinary	1.5	-
G-D1-041 - Outpatient Management Office	1.5	-
G-D1-042 - Shower	-	0.6
G-D2-001 - Waiting Area	1.5	-
G-D2-003 - Cardiology Admin Office (2p)	1.5	-
G-D2-004 - WC	-	0.6
G-D2-005 - Cardio Pulmonary Exercise Lab	1.5	-
G-D2-007 - DSR	-	0.6
G-D2-010 - Respiratory Admin Office (3p)	1.5	-
G-D2-013 - Lung Function Lab	1.5	-
G-D5-002 - Laboratory	1.5	-
G-D5-003 - Clean Utility Dental St	-	0.6
G-D5-005 - Dirty Utility	1.5	-
G-D5-006 - Store	-	0.6
G-D5-007 - Recovery	1.5	-
G-D8-001 - Open Plan Office	1.5	-
G-E1-003 - Sub-Waiting Area/Supervised Play	1.5	-
G-E1-004 - WC	-	0.6
G-E1-005 - WC	-	0.6
G-E1-006 - WC	-	0.6
G-E1-007 - WC Wheelchair Access	-	0.6
G-E1-008 - DSR	-	0.6
G-E1-009 - WC	-	0.6
G-E1-010 - WC Wheelchair Access	-	0.6
G-I1-003 - Security Office	1.5	-
G-K1-004 - Office Staff SKFF (4p)	1.5	-
G-K1-005 - Office Staff SKFF (3p)	1.5	-
G-K1-006 - Waiting Area	1.5	-
G-K1-007 - Nappy Change	-	0.6
G-K1-008 - WC Wheelchair Access	-	0.6
G-K1-011 - Office Manager (2p)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
G-K1-012 - Office Kindred (3p pod)	1.5	-
G-K1-018 - WC	-	0.6
G-K1-020 - Store	-	0.6
G-K1-024 - Drop-in Office	1.5	-
G-K1-025 - WC	-	0.6
G-K1-026 - DSR	-	0.6
G-S6-020 - Atrium Clean Equipment	-	0.6
G-S6-020 - Atrium Clean Equipment	-	0.6
G-T1-006 - IT Node Room	1.5	-
G-T1-007 - IT Node Room	1.5	-

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	9677	9677
External area [m²]	10626.9	10626.9
Weather	GLA	GLA
Infiltration [m³/hm²@ 50Pa]	5	10
Average conductance [W/K]	3831.63	0
Average U-value [W/m²K]	0.36	0
Alpha value* [%]	8.18	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	Retail/Financial and Professional services
	Restaurants and Cafes/Drinking Est./Takeaways
	Offices and Workshop businesses
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
100	**Residential Inst.: Hospitals and Care Homes**
	Residential Inst.: Residential schools
	Residential Inst.: Universities and colleges
	Secure Residential Inst.
	Residential spaces
	Non-residential Inst.: Community/Day Centre
	Non-residential Inst.: Libraries, Museums, and Galleries
	Non-residential Inst.: Education
	Non-residential Inst.: Primary Health Care Building
	Non-residential Inst.: Crown and County Courts
	General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	76.51	150.54
Cooling	3.07	3.06
Auxiliary	26.05	34.94
Lighting	41.87	60.12
Hot water	81.74	45.71
Equipment*	80.71	81.63
TOTAL**	**162.99**	**294.37**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	3.57	0
Wind turbines	0	0
CHP generators	66.25	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	151.08	224.07
Primary energy* [kWh/m²]	175.26	248.76
Total emissions [kg/m²]	31.1	45.9

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	82.9	0	0.4	0	36.1	0.91	0	0.97	0
	Notional	0	0	0	0	0	0.87	0	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	2.5	263.1	0.1	27.3	68.4	0.7	2.61	0.97	4.09
	Notional	0	0	0	0	0	0.83	3.79	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	8.8	136.4	0.1	11.4	23.8	0.87	3.23	0.97	4.09
	Notional	0	0	0	0	0	0.83	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	228.7	0	1.1	0	1.5	0.91	0	0.97	0
	Notional	0	0	0	0	0	0.83	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	83	0	0.5	0	15.7	0.91	0	0.97	0
	Notional	0	0	0	0	0	0.83	0	----	----

Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type

Apache Specification Information

Scottish Building Regulations 2010 Section 6 Guidance
Carbon Dioxide Emissions, U-Values, Air Permeability, and HVAC

Project name

Block_B_Section_6_sim000

Date: Mon Aug 25 16:00:39 2014

Administrative information

Building Details

Address: Address 1, City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

Compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Agent details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

1- Predicted CO2 emission from proposed building

1.1	Calculated CO2 emission rate from notional building	72.6 KgCO2/m2.annum
1.2	Improvement factor	0.52
1.3	LZC benchmark	0.15
1.4	Target CO2 Emission Rate (TER)	37.4 KgCO2/m2.annum
1.5	Building CO2 Emission Rate (BER)	27 KgCO2/m2.annum
1.6	Are emissions from building less than or equal to the target?	BER =< TER YES

2- The performance of the building fabric and the building services systems

2.1 How do the U-values compare with Section 6 guidance?

The building does not follow guidance in Scottish Building Regulations 2010

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Limit}$	$U_{i\text{-}Calc}$	Surface where this maximum value occurs*
Wall	0.27	0.2	0.7	0.2	BDRM0000:Surf[3]
Floor	0.22	0.2	0.7	0.2	BDRM0000:Surf[0]
Roof	0.2	0.15	0.35	0.15	FLTB0001:Surf[0]
Windows**, roof windows, and rooflights	2	1.6	3.3	1.6	BDRM0000:Surf[1]
Personnel doors	2	2.19	3.3	2.19	CRCL0309:Surf[1]
Vehicle access & similar large doors	1.5	-	1.5	-	No Vehicle access doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [W/(m2K)]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [W/(m2K)]
$U_{i\text{-}Limit}$ = Limiting individual element U-values [W/(m2K)]
$U_{i\text{-}Calc}$ = Calculated individual element U-values [W/(m2K)]

* There might be more than one surface exceeding the limiting standards.
** Display windows and similar glazing are not required to meet the standard given in this table.

2.2 Air permeability

Air Permeability	This building's value
m3/(h.m2) at 50 Pa	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

2- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

4- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	**Supply & extract SFP [W/(l/s)]**	**Exhaust SFP [W/(l/s)]**
*******Ward Areas_(NCM_Wards_Patients)******	1.5	-
*****Bedrooms_(NCM_Bedroom)*****	1.5	-
***Fault_Bedrooms_(NCM_Bedroom)	1.5	-
B-1-Clinical Waste Clean	1.5	-
B-1-Clinical Waste Dirty	1.5	-
B-2-General Works	1.5	-
B-3-Works Area	1.5	-
B-5-Confidential Waste	0.8	0.6
B-6-Kitchen Waste	0.8	0.6
B-7-White Goods	0.8	0.6
B-8-WEEE Lamp	0.8	0.6
B-9-Damaged Furniture	0.8	0.6
B-I2-002-DSR	0.8	0.6
B-I2-004-Beds Store	0.8	0.6
B-I2-005-Toys Store	0.8	0.6
B-S1-001-Prep/Cooking Area	1.5	-
B-S1-002-Prep/Cooking Area	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
B-S1-003-Diet Prep Area	1.5	-
B-S1-004-Diet Store	0.8	0.6
B-S1-005-Temp Ctr Sandwich Prep	1.5	-
B-S1-006-Bakery Prep Area	1.5	-
B-S1-007-Staff Room	1.5	-
B-S1-008-Office (5P)	1.5	-
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-010-M Staff Changing inc Shower	0.8	0.6
B-S1-010-M Staff Changing inc Shower	0.8	0.6
B-S1-010-M Staff Changing inc Shower	0.8	0.6
B-S1-011-Kitchen Equipment	0.8	0.6
B-S1-012-Pan Wash	1.5	-
B-S1-013-Returned Trolleys	0.8	0.6
B-S1-014-Trolley Wash Area	1.5	-
B-S1-015-Refuse	0.8	0.6
B-S1-017-Clean Trolley Park	0.8	0.6
B-S1-018-Disposables/Detergant	0.8	0.6
B-S1-018-DSR	0.8	0.6
B-S1-019-Raw Meat	1.5	-
B-S1-020-Veg Store	0.8	0.6
B-S1-021-Freezer	0.8	0.6
B-S1-022-Freezer	0.8	0.6
B-S1-023-Receipt Bay	0.8	0.6
B-S1-025-Dairy Store	0.8	0.6
B-S1-027-Dry Goods	0.8	0.6
B-S1-027-Weighing	1.5	-
B-S3-002-Linen Pool (Clean)	0.8	0.6
B-S3-003-Supplies Store	0.8	0.6
B-S3-004-Laundry (Microfibre)	1.5	-
B-S3-005-Linen Pool (Dirty)	0.8	0.6
B-S3-007-Cleaning Equipment Store	0.8	0.6
B-S3-008-Sanitary Bins Store	0.8	0.6
B-S3-009-DSR	0.8	0.6
B-S3-010-Bulk Equipment Store	0.8	0.6
B-S3-011-Station/Phone Booth	0.8	0.6
B-S3-012-Domestic Services Office (SP)	1.5	-
B-S3-013-Curtain Store	0.8	0.6
B-S4-001-Storage/Holding Area	0.8	0.6
B-S4-003-Mailroom	1.5	-
B-S4-004-Office (2P)	1.5	-
B-S4-005-Porters Office	1.5	-
B-S6-003-Shower	0.8	0.6
B-S6-004-Shower	0.8	0.6
B-S6-004-Workshop (NPD)	1.5	-
B-S6-005-NHSL Office	1.5	-
B-S6-006-NHSL Store	0.8	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
B-S6-009-Workshop (NHSL)	1.5	-
B-S6-010-WC (Staff)	0.8	0.6
B-S6-014-Store	0.8	0.6
B-S8-001-Trolley	0.8	0.6
B-T1-001-IT Node Room	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Clinic_(NCM_Consulting)	1.5	-
Clinic_(NCM_Consulting)	1.5	-
Clinic_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Dental_(NCM_A&E_Consulting)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Freezer_(NCM_Cupboard)	-	0.6
Freezer_(NCM_Cupboard)	-	0.6
Injection_(NCM_A&E_Consulting)	1.5	-
Injection_(NCM_A&E_Consulting)	1.5	-
Injection_(NCM_A&E_Consulting)	1.5	-
IPS_(NCM_IT)	1.5	-
IPS_(NCM_IT)	1.5	-
IPS_(NCM_IT)	1.5	-
IPS_(NCM_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laundry_(NCM_Laundry)	1.5	-
Laundry_(NCM_Laundry)	1.5	-
Library_(NCM_Classroom)	1.5	-
Library_(NCM_Classroom)	1.5	-
Library_(NCM_Classroom)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Nappy Change_(NCM_Toilet)	-	0.6
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Pantry_(NCM_Cupboard)	-	0.6
Photocopy_(NCM_Office)	1.5	-
Photocopy_(NCM_Office)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Trays_(NCM_Cupboard)	-	0.6
Trays_(NCM_Cupboard)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	38712	38712
External area [m²]	37745.3	37745.3
Weather	GLA	GLA
Infiltration [m³/hm²@ 50Pa]	5	10
Average conductance [W/K]	9692.19	16031.6
Average U-value [W/m²K]	0.26	0.42
Alpha value* [%]	12.81	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	Retail/Financial and Professional services
	Restaurants and Cafes/Drinking Est./Takeaways
	Offices and Workshop businesses
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
100	**Residential Inst.: Hospitals and Care Homes**
	Residential Inst.: Residential schools
	Residential Inst.: Universities and colleges
	Secure Residential Inst.
	Residential spaces
	Non-residential Inst.: Community/Day Centre
	Non-residential Inst.: Libraries, Museums, and Galleries
	Non-residential Inst.: Education
	Non-residential Inst.: Primary Health Care Building
	Non-residential Inst.: Crown and County Courts
	General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	53.42	88.93
Cooling	5.85	6.81
Auxiliary	18.02	22.48
Lighting	35.19	52.04
Hot water	71.64	65.54
Equipment*	116.18	116.18
TOTAL**	**132.5**	**235.8**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	1.79	0
Wind turbines	0	0
CHP generators	51.63	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	143.73	150.7
Primary energy* [kWh/m²]	149.27	203.5
Total emissions [kg/m²]	27	37.4

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	32.8	0	0.9	0	20.8	0.91	0	0.97	0
	Notional	293.1	0	104.4	0	29.7	0.78	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	189.3	0	3.4	0	1.6	0.91	0	0.97	0
	Notional	248.7	0	94.6	0	3.6	0.73	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	126.4	0	2.8	0	12.7	0.91	0	0.97	0
	Notional	174.2	0	62	0	18.2	0.78	0	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	10.3	245.9	0.5	20.6	26.1	0.87	3.23	0.97	4.09
	Notional	77.6	171.9	26	25.7	37.2	0.83	1.86	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	4.1	648.8	0.6	67.3	100.1	0.7	2.61	0.97	4.09
	Notional	537	520.6	179.8	78	100.2	0.83	1.86	----	----

Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type

4.2 Scottish EPC

Energy Performance Certificate for buildings other than dwellings

Building Energy Performance — Scotland

Energy Performance Certificate

Calculated asset rating using Virtual Environment v6.4.0 [ApacheSim]	Building type Hospitals/Care Home	Current rating

Excellent

C+

Very Poor

Carbon Dioxide Emissions The number refers to the calculated carbon dioxide emissions in terms of kg per m² of floor area per year	31
Approximate current energy use per m² of floor area:	163 kWh/m²

Main heating fuel: Natural Gas
Building Services: Heating with Mech. Vent.
Renewable energy source: CHP generators
Electricity: Grid supplied

Carbon Dioxide is a greenhouse gas which contributes to climate change.
Less Carbon Dioxide emissions from buildings helps the environment.

Benchmarks

A building of this type built to building regulations standards current at the date of issue of this certificate would have a rating:	46	D+
Where the accompanying recommendations for the cost effective improvement of energy performance are applied, this building would have a rating:	0	??

Recommendations for the cost-effective improvement (lower cost measures) of the energy performance

Address: Block_A_Scottish_EPC_sim000, City, Postcode
Conditioned area (m²): 9676.982
Name of protocol organisation: CIBSE Certification Ltd, [ABCD123456]
Date of issue of certificate: 25 Aug 2014 (Valid for a period not exceeding 10 years)

This certificate is a requirement of EU Directive 2002/91/EC on the energy performance of buildings.

NB THIS CERTIFICATE MUST BE AFFIXED TO THE BUILDING AND NOT REMOVED UNLESS REPLACED WITH AN UPDATED VERSION AND FOR PUBLIC BUILDINGS DISPLAYED IN A PROMINENT PLACE

A43133429

Energy Performance Certificate for buildings other than dwellings

Energy Performance Certificate

Building Energy Performance — Scotland

Calculated asset rating using Virtual Environment v6.4.0 [ApacheSim]	Building type Hospitals/Care Home	Current rating

Excellent

B

Very Poor

Carbon Dioxide Emissions The number refers to the calculated carbon dioxide emissions in terms of kg per m² of floor area per year	27
Approximate current energy use per m² of floor area:	132 kWh/m²

Main heating fuel: Natural Gas
Building Services: Heating with Mech. Vent.
Renewable energy source: CHP generators
Electricity: Grid supplied

Carbon Dioxide is a greenhouse gas which contributes to climate change.
Less Carbon Dioxide emissions from buildings helps the environment.

Benchmarks

A building of this type built to building regulations standards current at the date of issue of this certificate would have a rating:	37	C+
Where the accompanying recommendations for the cost effective improvement of energy performance are applied, this building would have a rating:	0	??

Recommendations for the cost-effective improvement (lower cost measures) of the energy performance

Address: Block_B_Scottish_EPC_sim000, Address 1, Address 2, City, Postcode
Conditioned area (m²): 38711.984
Name of protocol organisation: CIBSE Certification Ltd, [ABCD123456]
Date of issue of certificate: 25 Aug 2014 (Valid for a period not exceeding 10 years)

This certificate is a requirement of EU Directive 2002/91/EC on the energy performance of buildings.

NB THIS CERTIFICATE MUST BE AFFIXED TO THE BUILDING AND NOT REMOVED UNLESS REPLACED WITH AN UPDATED VERSION AND FOR PUBLIC BUILDINGS DISPLAYED IN A PROMINENT PLACE

A43133429

4.3 Edinburgh Standards for Sustainable Buildings S1 Form

Form S1

·EDINBVRGH·
THE CITY OF EDINBURGH COUNCIL

FOR OFFICIAL USE ONLY
Reference No :
Registration Date :

Sustainability Statement Form

To accompany all applications for planning permission apart from alterations and extensions to existing domestic properties.

PLEASE REFER TO NOTES FOR GUIDANCE

Part A – must be completed for all applications for new development (pages 1 & 2)
Part B – Major applications only

1 APPLICANT'S DETAILS

NAME INTEGRATED HEALTH SOLUTIONS LOTHIAN
ADDRESS RHSC & DCN PROJECT OFFICE
56 CANAAN LANE
POSTCODE EDINBURGH EH10 4SG

2 AGENT'S DETAILS

NAME IRONSIDE FARRAR LTD
ADDRESS 111 McDONALD ROAD
EDINBURGH
POSTCODE EH7 4NW

3 CONTACT DETAILS

NAME [redacted]
TELEPHONE [redacted] E-MAIL [redacted]

4 DESCRIPTION OF PROPOSED DEVELOPMENT *please specify what is being proposed*

RE-PROVISION OF THE ROYAL HOSPITAL FOR SICK CHILDREN AND DEPARTMENT OF CLINICAL NEUROSCIENCES AT LITTLE FRANCE

DECLARATION

I hereby certify that the information given by me in this form is true and accurate to the best of my knowledge.

Signature of ~~Applicant~~ / Agent (delete as appropriate) [redacted]

Date [redacted] 09 MAY 2014

1

A43133429

Edinburgh Standards for Sustainable Building S1 Form

Part A – Carbon Reduction Declaration (all new developments apart from domestic alterations and extensions and change of use for local developments)

Question	Response
Q1: Does the proposal include any Low and Zero Carbon Equipment to meet the requirements of Section 6 (energy) of the Building Standards 2010? Yes/No (if no, please explain)	Yes.
Q2: Has the proposed equipment been clearly marked on plans submitted with the planning application? Yes/No (if no, please explain)	Yes
Please describe the type of Low and Zero Carbon equipment that the application includes.	Solar photovoltaic's Gas Combined Heat and Power (CHP)

Part B – Sustainable Development (Major Developments only)

Section 1 - Energy needs have been minimised through a combination of design for energy efficiency and the incorporation of low or zero carbon equipment

Essential Requirements

Principle	Question	Response / Notes
Achieving carbon reduction	The proposed development must meet the requirements of Section 6 of the Building Standards.	Yes. Refer to Sustainability Statement.
Developing in sustainable locations.	The proposed development should be located on brownfield land, be allocated within the ECLP or be covered by an approved Masterplan, development brief or framework.	The development is on land designated for health use, part of the Edinburgh Bio-quarter and South East Wedge Parkland masterplan.

Desirable Requirements

Principle	Question	Response / Notes
Working towards net zero carbon emissions.	Developments that go beyond the 30% carbon reduction requirements within the Building Standards will be rewarded for doing so on a sliding scale.	The development is designed to achieve Section 7 (Scottish Building Standards) Aspect Silver 1 which is a minimum 21.4% improvement on the 2010 Building Standards.
Utilising low and zero carbon technologies.	Developments that include low and zero carbon technologies to meet or go beyond the carbon reduction requirements with the Building Standards will be rewarded.	The development includes solar photovoltaic's and gas Combined Heat and Power (CHP).

Achieving sustainability accreditation/ award.	Development scores very good or equivalent.	The development is designed to achieve a BREEAM New Construction 2011 'Very Good' rating.
Promoting passive design.	Has the design of the site been evaluated for passive gain? E.g. solar, layout, access.	The development has been assessed using best practice IES thermal modelling software.
Supporting decentralised and renewable energy for excess energy generation to be supplied to the national grid.	Has provision been made for excess energy generation to be supplied to the national grid? This can include making allowances for householders / occupants to install microgeneration technologies or connect to a CHP system.	The development has the potential to export excess electrical for the gas CHP plant to the national grid.
Support sustainable transport.	Does the development provide city car club spaces, bus stops, contribute to public transport or provide electric car hook ups.	The development supports green travel through a site specific travel plan (in accordance with BREEAM) and encourages the use of sustainable transport methods with the inclusion of adjacent bus stops, a site wide cycle path, and cycle parking provision.

Section 2 - Measures to promote water conservation

Essential Requirements

Principle	Question	IHS Lothian Response
Reduce water use.	100% of devices must be water saving, i.e dual flush toilets.	The development includes low flow water fixtures throughout in accordance with BREEAM credit Wat 1 (Water consumption) Level 2 appliances and fixtures.

Desirable Requirements

Principle	Question	IHS Lothian Response
Conserve and re-use water.	Rainwater harvesting for use on site.	Rainwater harvesting is not included within the scheme.

Section 3 - Measures that will ensure that there will be no increase in rate of surface water run-off in peak conditions

Essential Requirements

Principle	Question	IHS Lothian Response
Providing attenuation of surface water.	A SUDs system or a Surface Water Management Plan must be submitted.	Discharge off site is restricted to green-field rates. The SUDs system provides attenuation for up to the 1 in 200 year storm event plus climate change (assuming 100% impermeable site area). Additional storage is provided in dished areas on surface away from the building.

Desirable Requirements

Principle	Question	IHS Lothian Response
Supporting innovation in surface run off design.	Inclusion of green roofs or living walls.	Green roofs are proposed as part of the development over the CAMHS unit and within internal courtyard roofs. In addition strategically located rain gardens provide additional ecological and bio-diversity benefits as well as attenuation and treatment of surface run-off.

Section 4 – Provision of facilities to encourage recycling

Essential Requirements

Principle	Question	IHS Lothian Response
Reduce, reuse, recycle.	Include waste management plan or confirm commitment to recycling.	Dedicated space is provided for the segregation and storage of operational recyclable waste (both within basement area and service yard areas). The facility is located to allow ease of access by building users, and for ease of collection.

Desirable Requirements

Principle	Question	IHS Lothian Response
Provide facilities to compost Household waste.	Provide facilities to home compost household waste by means of separated dedicated storage space.	N/A
Neighbourhood recycling.	Provide one local communal recycling point per 100 properties in consultation with Waste Services.	N/A

Section 5 – Maximum use of materials from local and/or sustainable sources.

Essential Requirements

Principle	Question	IHS Lothian Response
Use of sustainable materials.	Materials selected must be sustainable and evidence provided. For example, all timber must be FSC labelled or certified alternative.	The key building materials have been selected with reference to the Green Guide to Specification, and A or A+ rated materials have been adopted where practical.
Reducing the use of uPVC	An alternative to uPVC must be used for all window.	No uPVC windows are being used.
Promoting recycled materials and reducing site waste.	At least 10% of materials come from a recycled source. This can include reuse of buildings on site for construction purposes.	It is intended that greater than 10% of materials will be from a recycled source.

Desirable Requirements

Principle	Question	IHS Lothian Response
Use of sustainable timber	No tropical hardwood used on site; and, or all timber is from a local source.	No tropical hardwood is being used. It is the intention that all timber is specified to be from an FSC (or equivalent) credited source.

4.4 Energy Model Inputs Templates – Financial Close

	Room Type
1	Atrium
2	Anaesthetic
3	Bays
4	Bedroom
5	Changing Facilities
6	Circulation
7	Clinic
8	Conference Room
9	Consulting
10	DSR
11	Dental
12	Dining
13	Ensuites
14	Examination
15	Freezer (room with freezers)
16	IPS
17	IT
18	Injection
19	Interview
20	Kitchen
21	Laboratory
22	Laundry
23	Library
24	Lobby
25	Lounge
26	Meeting
27	Nappy Change
28	Office
29	Operating
30	Pantry
31	Pharmacy
32	Photocopy
33	Plant
34	Preparation
35	Reception
36	Reporting
37	Recovery
38	RIE Facilities/Link Building
39	Seminar
40	Shop
41	Scrub Up
42	Shower
43	Staff
44	Store
45	Toilets

46 Treatment
47 Utility
48 Waiting
49 Ward Areas
50 Workshop
51 X-ray/Ultrasound/Gamma/MRI/ICT

4.5 BREEAM Ene01 Compliance Checker Calculator

bre BREEAM

BREEAM New Construction 2011 Ene01 Compliance Checker

Project ID: 140827043548:30677
BREEAM Assessment Reference Number:

BRUKL purpose: E&W

Energy & CO_2 Emissions Summary		
	Actual Performance	Indicative Target
Heating + Cooling demand [MJ/m²]	140.02	141.89
Primary Energy [kWh/m²]	160.34	185.68
Total CO_2 emissions [kgCO_2/m²]	26.2	35.5

BREEAM New Construction 2011: Ene01 results	
EPR-Energy Demand:	0.0177
EPR-Primary Energy:	0.3359
EPR-CO_2 Emissions:	0.1995
Overall Energy Performance Ratio (EPR_{tc}):	0.5531
Number of BREEAM Ene01 credits achieved:	9

Minimum Standards		
Target	Minimum Requirement - CO_2 emissions	Achieved?
1 or more credits	BER better than TER	Yes
BREEAM Excellent Rating	25% reduction in CO_2 emissions	Yes
BREEAM Outstanding Rating	40% reduction in CO_2 emissions	No
15 credits	100% reduction in CO_2 emissions	No

The generated Energy & CO_2 Emissions outputs should be entered in to the separate 2011 version of the BREEAM Assessors Ene01 calculator or the Pre-Assessment Estimator.

Note:
Please make a record of the ID number (140827043548:30677) and save or print a copy of this page and keep as part of the evidence file for the BREEAM assessment of this project.

4.6 Part L2A 2010 Compliance BRUKL

BRUKL Output Document

HM Government

Compliance with England and Wales Building Regulations Part L 2010

Project name

Block_A_Part_L_sim000

As designed

Date: Mon Aug 25 22:15:54 2014

Administrative information

Building Details

Address: City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

BRUKL compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Criterion 1: The calculated CO_2 emission rate for the building should not exceed the target

1.1	CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	39
1.2	Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	39
1.3	Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	30.1
1.4	Are emissions from the building less than or equal to the target?	BER =< TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

2.a Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.2	0.2	TEMP0018:Surf[4]
Floor	0.25	0.2	0.2	1___0000:Surf[0]
Roof	0.25	0.15	0.15	3CRR0002:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.83	2	3TRM0000:Surf[0]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]
$U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

* There might be more than one surface where the maximum U-value occurs.
** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.
*** Display windows and similar glazing are excluded from the U-value check.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

2- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	-	0	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

4- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
1 - Office	1.5	-	-
1 - WC	-	-	0.6
1-D1-001 - DSR	-	-	0.6
1-D1-002 - Consult Exam	1.5	-	-
1-D1-004 - Linen	1.5	-	-
1-D1-005 - Consult Exam	1.5	-	-
1-D1-010 - Dirty Utility	1.5	-	-
1-D1-011 - WC	-	-	0.6
1-D1-012 - Shower Room	-	-	0.6
1-D1-013 - Clean Utility	1.5	-	-
1-D1-014 - Consult Exam	1.5	-	-
1-D1-016 - Consult multi-disciplinary	1.5	-	-
1-D1-017 - Consult Exam	1.5	-	-
1-D1-018 - Consult Exam Ophthalmology	1.5	-	-
1-D1-019 - Consult Exam ENT	1.5	-	-
1-D1-020 - Consult Exam Cleft	1.5	-	-
1-D1-021 - Consult Exam Cleft	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
1-D1-022 - Consult Exam ENT	1.5	-	-
1-D1-023 - Consult Exam ENT	1.5	-	-
1-D1-027 - Sub-waiting play Nurse Base	1.5	-	-
1-D1-027 Sub waiting play/Nurse Bay	1.5	-	-
1-D1-030 - Nappy Change	-	-	0.6
1-D1-031 - Equipment General Store	-	-	0.6
1-D1-032 - WC	-	-	0.6
1-D1-038 - WC	-	-	0.6
1-D3-004 - DSR	-	-	0.6
1-D3-006 - CE Orthoptic	1.5	-	-
1-D3-007 - CE Orthoptic	1.5	-	-
1-D3-008 - CE Orthoptic	1.5	-	-
1-D3-009 - CE Orthoptic	1.5	-	-
1-D4-004 - Staff Office BP	1.5	-	-
1-D4-005 - Testing Clinic Room	1.5	-	-
1-D4-007 - Testing Clinic Room	1.5	-	-
1-D4-009 - Waiting Area	1.5	-	-
1-D6-001 - Office	1.5	-	-
1-D6-004 - Office	1.5	-	-
1-D6-006 - WC	-	-	0.6
1-D6-007 - WC	-	-	0.6
1-D6-009 - Office	1.5	-	-
1-D6-010 - Office	1.5	-	-
1-D6-011 - TIP St	-	-	0.6
1-D6-015 - Physio St	-	-	0.6
1-D6-016 - Management Office (4p)	1.5	-	-
1-D6-017 - AC Staff Office (9p)	1.5	-	-
1-D6-018 - DSR	-	-	0.6
1-D6-020 - Dietetic Clinic Room	1.5	-	-
1-D6-021 - Dietetic Clinic Room	1.5	-	-
1-D6-023 - Reception (2p)	1.5	-	-
1-D6-024 - WC Wheelchair	-	-	0.6
1-D6-026 - Linen	1.5	-	-
1-D6-031 - Dietetic Store	-	-	0.6
1-D6-037 - Physio Store	-	-	0.6
1-D6-038 - OT St	-	-	0.6
1-D6-041 - Store - OT	-	-	0.6
1-D6-042 - Pantry	-	-	0.6
1-D6-043 - Physio St	-	-	0.6
1-D6-044 - WC	-	-	0.6
1-D6-049 - Chg	1.5	-	-
1-D6-050 - Physio St	-	-	0.6
1-D6-051 - Chg	1.5	-	-
1-D6-052 - Physio St	-	-	0.6
1-D6-057 - WC Assist Chg	-	-	0.6
1-D7-001 - Assisted Bathroom	-	-	0.6
1-D7-002 - Dressings Doppler Store	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
1-D7-005 - Office	1.5	-	-
1-T1-003 - IT Node Room	1.5	-	-
1-T1-004 - IT Node Room	1.5	-	-
2 - Office	1.5	-	-
2 - Office	1.5	-	-
2-R1-001 - Staff Room	1.5	-	-
2-R1-002 - Office	1.5	-	-
2-R1-004 - Office	1.5	-	-
2-R1-007 - DSR	-	-	0.6
2-R1-008 - Store	-	-	0.6
2-R1-009 - Printer Photocopier Room	1.5	-	-
2-R1-010 - Office	1.5	-	-
2-R1-011 - Office	1.5	-	-
2-R1-012 - Office	1.5	-	-
2-R1-013 - WC	-	-	0.6
2-R1-014 - WC	-	-	0.6
2-R1-016 - WC	-	-	0.6
2-R1-017 - Office	1.5	-	-
2-R1-018 - Office	1.5	-	-
2-R1-019 - Office	1.5	-	-
2-R1-020 - Printed Photocopier Room	1.5	-	-
2-R1-024 - Office	1.5	-	-
2-R1-025 - Office	1.5	-	-
2-R1-029 - Office	1.5	-	-
2-R1-030 - Office	1.5	-	-
2-R1-031 - Office	1.5	-	-
2-R1-032 - WC Wheelcahir Access	-	-	0.6
2-R1-033 - WC	-	-	0.6
2-R1-034 - DSR	-	-	0.6
2-R1-035 - Printer Photocopier Room	1.5	-	-
2-R1-037 - Store	-	-	0.6
2-R1-038 - WC	-	-	0.6
2-R1-039 - Office	1.5	-	-
2-R1-040 - Office	1.5	-	-
2-R1-041 - Office	1.5	-	-
2-R1-042 - Office	1.5	-	-
2-R1-043 - Clinical Store	-	-	0.6
2-R1-044 - Printer Photocopier Room	1.5	-	-
2-R1-047 - Store	-	-	0.6
2-R1-048 - Office	1.5	-	-
2-R1-049 - Open Plan Desk Area	1.5	-	-
2-R1-049 - Open Plan Desk Area	1.5	-	-
2-R1-051 - Open Plan Desk Area	1.5	-	-
2-R1-052 - Open Plan Desk Area	1.5	-	-
2-R1-052 - Open Plan Desk Area	1.5	-	-
2-R1-052 - Open Plan Desk Area	1.5	-	-
2-R1-053 - Open Plan Desk Area	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
2-R1-054 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-T1-005 - IT Node Room	1.5	-	-
2-T1-006 - IT Node Room	1.5	-	-
3-H3-001 - Workshop/Tutorial Room 3	1.5	-	-
3-H3-002 - Control Room	1.5	-	-
3-H3-003 - Storage	-	-	0.6
3-H3-004 - Workshop/Tutorial Room 2	1.5	-	-
3-H3-006 - WC	-	-	0.6
3-H3-007 - WC	-	-	0.6
3-H3-008 - WC	-	-	0.6
3-H3-010 - Workshop/Tutorial Room 1	1.5	-	-
3-H3-012 - DSR	-	-	0.6
3-H3-013 - Manual Handling Health and Safety	1.5	-	-
3-H3-014 - Practice Based Educators Office	1.5	-	-
3-H3-018 - Management/Admin Office	1.5	-	-
3-H3-019 - Computer Games	1.5	-	-
3-H3-020 - Lockers	-	-	0.6
3-K2-002 - Reception	1.5	-	-
3-K2-003 - Office (1p)	1.5	-	-
3-K2-004 - WC	-	-	0.6
3-K2-005 - WC	-	-	0.6
3-K2-006 - Lounge non-residents	1.5	-	-
3-K2-007 - WC	-	-	0.6
3-K2-008 - Family Room 1	1.5	-	-
3-K2-009 - En-suite 1	-	-	0.6
3-K2-010 - Family Room 3	1.5	-	-
3-K2-011 - En-suite 3	-	-	0.6
3-K2-012 - Family Room 2	1.5	-	-
3-K2-013 - En-suite 2	-	-	0.6
3-K2-014 - Family Room 4	1.5	-	-
3-K2-015 - En-suite 4	-	-	0.6
3-K2-016 - Family Room 5	1.5	-	-
3-K2-017 - En-suite5	-	-	0.6
3-K2-019 - Family Room (Acc 1)	1.5	-	-
3-K2-020 - En-suite Ac 1	-	-	0.6
3-K2-021 - Family Room 6	1.5	-	-
3-K2-022 - En-suite 6	-	-	0.6
3-K2-023 - Family Room 7	1.5	-	-
3-K2-024 - En-suite 7	-	-	0.6
3-K2-025 - Family Room8 (4p)	1.5	-	-
3-K2-026 - En-suite 8	-	-	0.6
3-K2-027 - Family Room 9	1.5	-	-
3-K2-029 - Family Room 10	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
3-K2-030 - En-suite 10	-	-	0.6
3-K2-032 - Family Room 11	1.5	-	-
3-K2-033 - En-suite 11	-	-	0.6
3-K2-033 - En-suite 11	-	-	0.6
3-K2-035 - Family Room 12	1.5	-	-
3-K2-036 - En-suite 12	-	-	0.6
3-K2-037 - Family Room 13	1.5	-	-
3-K2-038 - En-suite 13	-	-	0.6
3-K2-039 - Store	-	-	0.6
3-K2-040 - Family Room 14	1.5	-	-
3-K2-041 - En-suite 14	-	-	0.6
3-K2-042 - Laundry	1.5	-	-
3-K2-043 - En-suite 15	-	-	0.6
3-K2-044 - Family Room 15	1.5	-	-
3-K2-045 - Family Room 16 (4p)	1.5	-	-
3-K2-046 - En-suite 16	-	-	0.6
3-K2-047 - DSR	-	-	0.6
3-K2-048 - WC	-	-	0.6
3-K2-050 - Kitchen/Dining Room	1.5	-	-
3-K2-051 - Residents Day Room	1.5	-	-
3-K2-053 - Residents Play Room	1.5	-	-
3-K2-057-Store	-	-	0.6
3-K2-058 - En-suite 17	-	-	0.6
3-K2-059 - Family Room 17 (4p)	1.5	-	-
3-K2-060 - Family Room 2	1.5	-	-
3-K2-061 - En-suite 2	-	-	0.6
3-K2-062 - Family Room 18 (4p)	1.5	-	-
3-K2-062 - Family Room 18 (4p)	1.5	-	-
3-K2-062 - Family Room 18 (4p)	1.5	-	-
3-K2-065 - Family Room 19 (4p)	1.5	-	-
3-K2-066 - Family Room 20 (4p)	1.5	-	-
3-K2-067 - En-suite 20	-	-	0.6
3-K2-068 - En-suite 21	-	-	0.6
3-K2-069 - Family Room 21 (4p)	1.5	-	-
3-K2-071 - En-suite 22	-	-	0.6
3-K2-072 - Family Room 22 (4p)	1.5	-	-
3-K2-073 - Family Room 23 (4p)	1.5	-	-
3-K2-074 - En-suite 23	-	-	0.6
3-K2-075 - Family Room 24 (4p)	1.5	-	-
3-K2-076 - En-suite 24	-	-	0.6
3-K2-078 - Laundry	1.5	-	-
3-K2-080-Storage-refuse	-	-	0.6
3-K2-085 - Fundraisers	1.5	-	-
3-T1-004 - IT Node Room	1.5	-	-
3-T1-005 - I Node Room	1.5	-	-
4 - Atrium	1.5	-	-
4 - Plant	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
4 - Plant	1.5	-	-
G - Reception Area	1.5	-	-
G- WC	-	-	0.6
G-D1-0001 - Staff Room	1.5	-	-
G-D1-001 - Nappy Change	-	-	0.6
G-D1-003 - WC	-	-	0.6
G-D1-004 WC	-	-	0.6
G-D1-005 Store Room	-	-	0.6
G-D1-006 - DispHold	-	-	0.6
G-D1-007 - DSR	-	-	0.6
G-D1-009 - Store Plaster	-	-	0.6
G-D1-011 - Consult Exam	1.5	-	-
G-D1-012 - Consult Exam	1.5	-	-
G-D1-013 - Consult Exam	1.5	-	-
G-D1-014 - Consult Exam	1.5	-	-
G-D1-016 - Consult Exam Child Protection	1.5	-	-
G-D1-019 - Equipment General Store	-	-	0.6
G-D1-023 - Dirty Utility	1.5	-	-
G-D1-024 - Pantry	-	-	0.6
G-D1-031 - Clean Utility	1.5	-	-
G-D1-032 - Consult Exam	1.5	-	-
G-D1-034 - Consult Exam	1.5	-	-
G-D1-035 - Consult Exam	1.5	-	-
G-D1-036 - Consult Exam	1.5	-	-
G-D1-038 - Consult Exam	1.5	-	-
G-D1-039 - Consult Exam	1.5	-	-
G-D1-040 - Consult multi-disciplinary	1.5	-	-
G-D1-041 - Outpatient Management Office	1.5	-	-
G-D1-042 - Shower	-	-	0.6
G-D2-001 - Waiting Area	1.5	-	-
G-D2-003 - Cardiology Admin Office (2p)	1.5	-	-
G-D2-004 - WC	-	-	0.6
G-D2-005 - Cardio Pulmonary Exercise Lab	1.5	-	-
G-D2-007 - DSR	-	-	0.6
G-D2-010 - Respiratory Admin Office (3p)	1.5	-	-
G-D2-013 - Lung Function Lab	1.5	-	-
G-D5-002 - Laboratory	1.5	-	-
G-D5-003 - Clean Utility Dental St	-	-	0.6
G-D5-005 - Dirty Utility	1.5	-	-
G-D5-006 - Store	-	-	0.6
G-D5-007 - Recovery	1.5	-	-
G-D8-001 - Open Plan Office	1.5	-	-
G-E1-003 - Sub-Waiting Area/Supervised Play	1.5	-	-
G-E1-004 - WC	-	-	0.6
G-E1-005 - WC	-	-	0.6
G-E1-006 - WC	-	-	0.6
G-E1-007 - WC Wheelchair Access		-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
G-E1-008 - DSR	-	-	0.6
G-E1-009 - WC	-	-	0.6
G-E1-010 - WC Wheelchair Access		-	0.6
G-I1-003 - Security Office	1.5	-	-
G-K1-004 - Office Staff SKFF (4p)	1.5	-	-
G-K1-005 - Office Staff SKFF (3p)	1.5	-	-
G-K1-006 - Waiting Area	1.5	-	-
G-K1-007 - Nappy Change	-	-	0.6
G-K1-008 - WC Wheelchair Access		-	0.6
G-K1-011 - Office Manager (2p)	1.5	-	-
G-K1-012 - Office Kindred (3p pod)	1.5	-	-
G-K1-018 - WC	-	-	0.6
G-K1-020 - Store	-	-	0.6
G-K1-024 - Drop-in Office	1.5	-	-
G-K1-025 - WC	-	-	0.6
G-K1-026 - DSR	-	-	0.6
G-S6-020 - Atrium Clean Equipment		-	0.6
G-S6-020 - Atrium Clean Equipment		-	0.6
G-T1-006 - IT Node Room	1.5	-	-
G-T1-007 - IT Node Room	1.5	-	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1 - Corridor	30	-
1 - Corridor	10	-
1 - Corridor	80	-
1 - Office	700	-
1 - Walkway	130	-
1 - WC	40	-
1-D1-001 - DSR	90	-
1-D1-002 - Consult Exam	170	-
1-D1-003 - Treatment Room	290	-
1-D1-004 - Linen	30	-
1-D1-005 - Consult Exam	170	-
1-D1-007 - CorridorL01	270	-
1-D1-007 - CorridorL01	30	-
1-D1-007 - CorridorL01	20	-
1-D1-008 - Treatment Room	290	-
1-D1-010 - Dirty Utility	110	-
1-D1-011 - WC	40	-
1-D1-012 - Shower Room	20	-
1-D1-013 - Clean Utility	80	-
1-D1-014 - Consult Exam	170	-
1-D1-015 - Play Therapy	320	-
1-D1-016 - Consult multi-disciplinary	250	-
1-D1-017 - Consult Exam	170	-
1-D1-018 - Consult Exam Ophthalmology	200	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1-D1-019 - Consult Exam ENT	180	-
1-D1-020 - Consult Exam Cleft	190	-
1-D1-021 - Consult Exam Cleft	190	-
1-D1-022 - Consult Exam ENT	180	-
1-D1-023 - Consult Exam ENT	180	-
1-D1-026 - Infant Measuring Room	110	-
1-D1-027 - Sub-waiting play Nurse Base	970	15
1-D1-027 Sub waiting play/Nurse Bay	1510	15
1-D1-029 - Baby Infant Feed	80	-
1-D1-030 - Nappy Change	40	-
1-D1-031 - Equipment General Store	30	-
1-D1-032 - WC	40	-
1-D1-033 - Phlebotomy Room	160	-
1-D1-034 - Hoist Bay	50	-
1-D1-035 - Disp Hold	90	-
1-D1-036 - Physical Measurement	80	-
1-D1-038 - WC	30	-
1-D3-002 - Parking Bay	20	-
1-D3-004 - DSR	90	-
1-D3-005 - Fields Test	220	-
1-D3-006 - CE Orthoptic	170	-
1-D3-007 - CE Orthoptic	170	-
1-D3-008 - CE Orthoptic	170	-
1-D3-009 - CE Orthoptic	170	-
1-D4-002 - ABR Room	280	-
1-D4-003 - Test Room	290	-
1-D4-004 - Staff Office BP	140	-
1-D4-005 - Testing Clinic Room	220	-
1-D4-006 - Obs Control	200	-
1-D4-007 - Testing Clinic Room	220	-
1-D4-008 - Obs Control	200	-
1-D4-009 - Waiting Area	140	15
1-D4-010 - Work Room	240	-
1-D4-012 - Mould Room	260	-
1-D4-013 - Mould Room	160	-
1-D6-001 - Office	20	-
1-D6-003 - Meeting Room (6p)	90	-
1-D6-004 - Office	20	-
1-D6-005 - Meeting Room (4p)	60	-
1-D6-006 - WC	20	-
1-D6-007 - WC	20	-
1-D6-009 - Office	20	-
1-D6-010 - Office	20	-
1-D6-011 - TIP St	20	-
1-D6-015 - Physio St	150	-
1-D6-016 - Management Office (4p)	90	-
1-D6-017 - AC Staff Office (9p)	160	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1-D6-018 - DSR	90	-
1-D6-019 - Equipment Decontamination	180	-
1-D6-020 - Dietetic Clinic Room	120	-
1-D6-021 - Dietetic Clinic Room	120	-
1-D6-023 - Reception (2p)	70	15
1-D6-024 - WC Wheelchair	40	-
1-D6-025 - Infant Measuring Room	110	-
1-D6-026 - Linen	20	-
1-D6-027 - Treament Room OT	270	-
1-D6-028 - Treatment Room Physio	260	-
1-D6-029 - Treatment Room Physio	270	-
1-D6-030 - Treatment Room DF	270	-
1-D6-031 - Dietetic Store	10	-
1-D6-032 - Treatment Room DF	360	-
1-D6-034 - Corridor	20	-
1-D6-034 - Corridor	330	-
1-D6-034 - Corridor	20	-
1-D6-035 - Treatment Room DF	270	-
1-D6-036 - Treatment Room OT equipment	360	-
1-D6-037 - Physio Store	30	-
1-D6-038 - OT St	10	-
1-D6-039 - Rehab Room Physio	520	-
1-D6-040 - Splinting Casting Room	320	-
1-D6-041 - Store - OT	70	-
1-D6-042 - Pantry	90	-
1-D6-043 - Physio St	20	-
1-D6-044 - WC	30	-
1-D6-046 - Rehab Room OT	520	-
1-D6-048 - Rehab Room Physio	520	-
1-D6-049 - Chg	10	-
1-D6-050 - Physio St	10	-
1-D6-051 - Chg	10	-
1-D6-052 - Physio St	10	-
1-D6-053 - Rehab Room Physio	530	-
1-D6-054 - Rehab Room	680	-
1-D6-056 - Corridor	190	-
1-D6-056 - Corridor	10	-
1-D6-057 - WC Assist Chg	90	-
1-D7-001 - Assisted Bathroom	100	-
1-D7-002 - Dressings Doppler Store	10	-
1-D7-003 - Dressing Room	280	-
1-D7-004 - Sluice	120	-
1-D7-005 - Office	20	-
1-D7-006 - Dressing Room	280	-
1-D7-007 - Disp Hold	180	-
1-D7-008 - Corridor	230	-
1-FM-001 Lift	60	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1-T1-003 - IT Node Room	90	-
1-T1-004 - IT Node Room	100	-
1-Z1-005 - Stair 05	100	-
1-Z1-006 - Stair 06	100	-
1-Z1-007 - Stair 07	100	-
1-Z1-009 - Stair 05 Lobby	20	-
1-Z1-010 - Stair 06 Lobby	20	-
1-Z1-011 - Stair07 Lobby	30	-
2 - Connecting corridor	100	-
2 - Corridor	30	-
2 - Corridor	30	-
2 - Office	620	-
2 - Office	370	-
2- Corridor	20	-
2-COR-001 - Corridor	100	-
2-COR-010 - Corridor	80	-
2-PA002 - Lifts	60	-
2-R1 - Corridor	210	-
2-R1-001 - Staff Room	250	-
2-R1-002 - Office	20	-
2-R1-003 - Meeting Room (4p)	60	-
2-R1-004 - Office	20	-
2-R1-006 - Meeting Room (6p)	90	-
2-R1-007 - DSR	120	-
2-R1-008 - Store	10	-
2-R1-009 - Printer Photocopier Room	40	-
2-R1-010 - Office	20	-
2-R1-011 - Office	20	-
2-R1-012 - Office	20	-
2-R1-013 - WC	130	-
2-R1-014 - WC	130	-
2-R1-015 - Meeting Room (6p)	90	-
2-R1-016 - WC	40	-
2-R1-017 - Office	20	-
2-R1-018 - Office	20	-
2-R1-019 - Office	20	-
2-R1-020 - Printed Photocopier Room	30	-
2-R1-021 - Beverage Bay	30	-
2-R1-022-Disp Hold	40	-
2-R1-023 - Meeting Room (4p)	70	-
2-R1-024 - Office	20	-
2-R1-025 - Office	20	-
2-R1-026 - Beverage Area	40	-
2-R1-027 - Meeting Room (4p)	70	-
2-R1-028 - Meeting Room (4p)	70	-
2-R1-029 - Office	20	-
2-R1-030 - Office	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
2-R1-031 - Office	20	-
2-R1-032 - WC Wheelcahir Access	40	-
2-R1-033 - WC	120	-
2-R1-034 - DSR	90	-
2-R1-035 - Printer Photocopier Room	30	-
2-R1-036 - Meeting Room (4p)	60	-
2-R1-037 - Store	20	-
2-R1-038 - WC	150	-
2-R1-039 - Office	20	-
2-R1-040 - Office	20	-
2-R1-041 - Office	20	-
2-R1-042 - Office	20	-
2-R1-043 - Clinical Store	20	-
2-R1-044 - Printer Photocopier Room	30	-
2-R1-045 - Meeting Room (4p)	60	-
2-R1-046 - Meeting Room (4p)	100	-
2-R1-047 - Store	10	-
2-R1-048 - Office	20	-
2-R1-049 - Open Plan Desk Area	330	-
2-R1-049 - Open Plan Desk Area	660	-
2-R1-051 - Open Plan Desk Area	400	-
2-R1-052 - Open Plan Desk Area	390	-
2-R1-052 - Open Plan Desk Area	300	-
2-R1-052 - Open Plan Desk Area	200	-
2-R1-053 - Open Plan Desk Area	370	-
2-R1-054 - Open Plan Desk Area	600	-
2-R1-055 - Open Plan Desk Area	300	-
2-R1-055 - Open Plan Desk Area	410	-
2-R1-055 - Open Plan Desk Area	150	-
2-R1-055 - Open Plan Desk Area	170	-
2-R1-057 - Corridor	220	-
2-R1-058 - Corridor	130	-
2-R1-059 - Corridor	70	-
2-R1-061 - Corridor	100	-
2-R1-062 - Corridor	110	-
2-T1-005 - IT Node Room	100	-
2-T1-006 - IT Node Room	100	-
2-Z1-005 - Stair 05	100	-
2-Z1-006 - Stair 06	100	-
2-Z1-007-Stair 07	100	-
2-Z1-007-Stair 07	130	-
2-Z1-009 - Stair 05 - Lobby	20	-
2-Z1-010 - Stair 06 Lobby	20	-
2-Z1-011 - Stair 07 Lobby	30	-
3 - Corridor	30	-
3 - Corridor	650	-
3 - Corridor	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
3 - Lifts	60	-
3-COR-001 - Corridor	100	-
3-COR-010 - Corridor	80	-
3-COR-015 - Lift Lobby	130	-
3-H3-001 - Workshop/Tutorial Room 3	490	-
3-H3-002 - Control Room	90	-
3-H3-003 - Storage	40	-
3-H3-004 - Workshop/Tutorial Room 2	510	-
3-H3-005 - Scenario Room	340	-
3-H3-006 - WC	40	-
3-H3-007 - WC	30	-
3-H3-008 - WC	30	-
3-H3-009 - Corridor	100	-
3-H3-010 - Workshop/Tutorial Room 1	500	-
3-H3-011-Beverage Bay	30	-
3-H3-012 - DSR	90	-
3-H3-013 - Manual Handling Health and Safety	70	-
3-H3-014 - Practice Based Educators Office	90	-
3-H3-015 - Meeting Room	200	-
3-H3-016 - Seminar Room	320	-
3-H3-018 - Management/Admin Office	70	-
3-H3-019 - Computer Games	60	-
3-H3-020 - Lockers	30	-
3-H3-021 - Corridor	120	-
3-H3-021 - Corridor	20	-
3-K2-002 - Reception	70	15
3-K2-003 - Office (1p)	40	-
3-K2-004 - WC	30	-
3-K2-005 - WC	30	-
3-K2-006 - Lounge non-residents	400	15
3-K2-007 - WC	40	-
3-K2-008 - Family Room 1	90	-
3-K2-009 - En-suite 1	40	-
3-K2-010 - Family Room 3	90	-
3-K2-011 - En-suite 3	40	-
3-K2-012 - Family Room 2	90	-
3-K2-013 - En-suite 2	40	-
3-K2-014 - Family Room 4	90	-
3-K2-015 - En-suite 4	40	-
3-K2-016 - Family Room 5	90	-
3-K2-017 - En-suite5	40	-
3-K2-018 - Corridor	270	-
3-K2-019 - Family Room (Acc 1)	110	-
3-K2-020 - En-suite Ac 1	40	-
3-K2-021 - Family Room 6	90	-
3-K2-022 - En-suite 6	40	-
3-K2-023 - Family Room 7	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
3-K2-024 - En-suite 7	40	-
3-K2-025 - Family Room8 (4p)	90	-
3-K2-026 - En-suite 8	40	-
3-K2-027 - Family Room 9	90	-
3-K2-029 - Family Room 10	90	-
3-K2-030 - En-suite 10	40	-
3-K2-032 - Family Room 11	90	-
3-K2-033 - En-suite 11	40	-
3-K2-033 - En-suite 11	40	-
3-K2-035 - Family Room 12	90	-
3-K2-036 - En-suite 12	40	-
3-K2-037 - Family Room 13	90	-
3-K2-038 - En-suite 13	40	-
3-K2-039 - Store	60	-
3-K2-040 - Family Room 14	90	-
3-K2-041 - En-suite 14	40	-
3-K2-042 - Laundry	170	-
3-K2-043 - En-suite 15	40	-
3-K2-044 - Family Room 15	90	-
3-K2-045 - Family Room 16 (4p)	90	-
3-K2-046 - En-suite 16	40	-
3-K2-047 - DSR	90	-
3-K2-048 - WC	40	-
3-K2-049 - Corridor	270	-
3-K2-050 - Kitchen/Dining Room	920	-
3-K2-051 - Residents Day Room	80	-
3-K2-052 - Corridor	220	-
3-K2-053 - Residents Play Room	90	-
3-K2-056 - Corridor	110	-
3-K2-057-Store	40	-
3-K2-058 - En-suite 17	40	-
3-K2-059 - Family Room 17 (4p)	90	-
3-K2-060 - Family Room 2	110	-
3-K2-061 - En-suite 2	40	-
3-K2-062 - Family Room 18 (4p)	80	-
3-K2-062 - Family Room 18 (4p)	30	-
3-K2-062 - Family Room 18 (4p)	30	-
3-K2-065 - Family Room 19 (4p)	90	-
3-K2-066 - Family Room 20 (4p)	90	-
3-K2-067 - En-suite 20	40	-
3-K2-068 - En-suite 21	40	-
3-K2-069 - Family Room 21 (4p)	90	-
3-K2-071 - En-suite 22	40	-
3-K2-072 - Family Room 22 (4p)	90	-
3-K2-073 - Family Room 23 (4p)	100	-
3-K2-074 - En-suite 23	40	-
3-K2-075 - Family Room 24 (4p)	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
3-K2-076 - En-suite 24	40	-
3-K2-078 - Laundry	170	-
3-K2-080-Storage-refuse	30	-
3-K2-085 - Fundraisers	50	-
3-T1-004 - IT Node Room	100	-
3-T1-005 - I Node Room	100	-
3-Z1-005 - Stair 05	100	-
3-Z1-005 - Stair 05 Lobby	20	-
3-Z1-006 - Stair 06	100	-
3-Z1-011 - Stair 07 Lobby	30	-
4 - Atrium	770	-
4 - Plant	3740	-
4 - Plant	3840	-
G - Connecting zone	120	-
G - Corridor	60	-
G - Main Waiting Area	470	-
G - Main Waiting Area	850	-
G - Reception Area	1450	15
G- WC	50	-
G-CO-M002 - Corridor	50	-
G-D1-0001 - Staff Room	500	-
G-D1-001 - Nappy Change	40	-
G-D1-002 - Baby Infant Feed	80	-
G-D1-003 - WC	40	-
G-D1-004 WC	30	-
G-D1-005 Store Room	20	-
G-D1-006 - DispHold	30	-
G-D1-007 - DSR	90	-
G-D1-008 - Plaster Suite 3 bays	710	-
G-D1-009 - Store Plaster	20	-
G-D1-010 - Orthotics Workshop	300	-
G-D1-011 - Consult Exam	170	-
G-D1-012 - Consult Exam	170	-
G-D1-013 - Consult Exam	170	-
G-D1-014 - Consult Exam	170	-
G-D1-016 - Consult Exam Child Protection	160	-
G-D1-019 - Equipment General Store	20	-
G-D1-020 - Phlebotomy	150	-
G-D1-021 - Child Protection Room	430	-
G-D1-023 - Dirty Utility	110	-
G-D1-024 - Pantry	80	-
G-D1-025 - Physical Measurement	70	-
G-D1-028 - Infant Measuring Room	110	-
G-D1-031 - Clean Utility	90	-
G-D1-032 - Consult Exam	170	-
G-D1-033 - Treatment Room	280	-
G-D1-034 - Consult Exam	160	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
G-D1-035 - Consult Exam	160	-
G-D1-036 - Consult Exam	160	-
G-D1-037 - Meeting Room	150	-
G-D1-038 - Consult Exam	170	-
G-D1-039 - Consult Exam	160	-
G-D1-040 - Consult multi-disciplinary	260	-
G-D1-041 - Outpatient Management Office	40	-
G-D1-042 - Shower	20	-
G-D2-001 - Waiting Area	190	15
G-D2-002 - Corridor	30	-
G-D2-002 - Corridor	340	-
G-D2-003 - Cardiology Admin Office (2p)	100	-
G-D2-004 - WC	30	-
G-D2-005 - Cardio Pulmonary Exercise Lab	280	-
G-D2-006 - Echocardiography Room	360	-
G-D2-007 - DSR	90	-
G-D2-009 - ECG Procedure Room	220	-
G-D2-010 - Respiratory Admin Office (3p)	70	-
G-D2-012 - Domiciliary Sleep Studies	220	-
G-D2-013 - Lung Function Lab	360	-
G-D2-014 - Exercise Tolerance Test Room	370	-
G-D2-015 - Physical Measurement	70	-
G-D5-002 - Laboratory	130	-
G-D5-003 - Clean Utility Dental St	70	-
G-D5-004 - Surgery multi-disciplinary	1210	-
G-D5-005 - Dirty Utility	110	-
G-D5-006 - Store	20	-
G-D5-007 - Recovery	40	-
G-D5-008 - Surgery	1020	-
G-D5-009 - Surgery	1040	-
G-D5-010 - Surgery	1030	-
G-D5-011 - Corridor	50	-
G-D8-001 - Open Plan Office	210	-
G-D8-002 - Interview Room	120	-
G-D8-004 - Corridor	40	-
G-E1-003 - Sub-Waiting Area/Supervised Play	190	15
G-E1-004 - WC	40	-
G-E1-005 - WC	50	-
G-E1-006 - WC	70	-
G-E1-007 - WC Wheelchair Access	40	-
G-E1-008 - DSR	90	-
G-E1-009 - WC	30	-
G-E1-010 - WC Wheelchair Access	40	-
G-FM-001 - Lift	20	-
G-I1-002 - Wheelchair Bay	40	-
G-I1-003 - Security Office	60	-
G-I1-006 - Retail Shop	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
G-I1-007 - Catering Shop	80	-
G-K1-001 - Meeting Room	150	-
G-K1-002 - Meeting Room	150	-
G-K1-003 - Office Family Support (3p)	150	-
G-K1-004 - Office Staff SKFF (4p)	90	-
G-K1-005 - Office Staff SKFF (3p)	70	-
G-K1-006 - Waiting Area	180	15
G-K1-007 - Nappy Change	40	-
G-K1-008 - WC Wheelchair Access	40	-
G-K1-009 - Corridor	440	-
G-K1-010 - Interview Room	90	-
G-K1-011 - Office Manager (2p)	50	-
G-K1-012 - Office Kindred (3p pod)	80	-
G-K1-015 - Interview Room	90	-
G-K1-016 - Drop-in Lounge/Beverage Bay	360	-
G-K1-017 - Dropin Multi-purpose room	690	-
G-K1-018 - WC	30	-
G-K1-019 - Beverage Bay	60	-
G-K1-020 - Store	80	-
G-K1-021 - Complementary Therapy Room	270	-
G-K1-022 - Radio Lollipop Lobby	60	-
G-K1-023 - Wheelchair Bay	50	-
G-K1-024 - Drop-in Office	40	-
G-K1-025 - WC	40	-
G-K1-026 - DSR	90	-
G-K1-028 - Corridor	40	-
G-PA-001 - Lift	20	-
G-PA-002 - Lift	20	-
G-S6-020 - Atrium Clean Equipment	20	-
G-S6-020 - Atrium Clean Equipment	40	-
G-T1-006 - IT Node Room	110	-
G-T1-007 - IT Node Room	110	-
G-Z1-005 - Stairs	100	-
G-Z1-006 - Stair 06	100	-
G-Z1-007 - Stair 07	100	-
G-Z1-009 - Lobby	20	-
G-Z1-010 - Lobby	20	-
L03: 3-Z1-010 Stair 06 Lobby	20	-

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
1 - Office	NO (-59.3%)	NO
1-D1-002 - Consult Exam	NO (-85.7%)	NO
1-D1-003 - Treatment Room	N/A	N/A
1-D1-005 - Consult Exam	NO (-84.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
1-D1-008 - Treatment Room	N/A	N/A
1-D1-014 - Consult Exam	NO (-92%)	NO
1-D1-015 - Play Therapy	NO (-78.8%)	NO
1-D1-016 - Consult multi-disciplinary	NO (-71.4%)	NO
1-D1-017 - Consult Exam	NO (-65%)	NO
1-D1-018 - Consult Exam Ophthalmology	NO (-77.6%)	NO
1-D1-019 - Consult Exam ENT	NO (-72.5%)	NO
1-D1-020 - Consult Exam Cleft	NO (-63.7%)	NO
1-D1-021 - Consult Exam Cleft	NO (-64.5%)	NO
1-D1-022 - Consult Exam ENT	NO (-67.7%)	NO
1-D1-023 - Consult Exam ENT	NO (-64.2%)	NO
1-D1-026 - Infant Measuring Room	N/A	N/A
1-D1-027 - Sub-waiting play Nurse Base	N/A	N/A
1-D1-027 Sub waiting play/Nurse Bay	N/A	N/A
1-D1-029 - Baby Infant Feed	N/A	N/A
1-D1-033 - Phlebotomy Room	N/A	N/A
1-D1-036 - Physical Measurement	N/A	N/A
1-D3-005 - Fields Test	N/A	N/A
1-D3-006 - CE Orthoptic	N/A	N/A
1-D3-007 - CE Orthoptic	N/A	N/A
1-D3-008 - CE Orthoptic	N/A	N/A
1-D3-009 - CE Orthoptic	N/A	N/A
1-D4-002 - ABR Room	NO (-73.6%)	NO
1-D4-003 - Test Room	NO (-63.6%)	NO
1-D4-004 - Staff Office BP	N/A	N/A
1-D4-005 - Testing Clinic Room	NO (-72.3%)	NO
1-D4-006 - Obs Control	NO (-68%)	NO
1-D4-007 - Testing Clinic Room	NO (-83.9%)	NO
1-D4-008 - Obs Control	NO (-36.3%)	NO
1-D4-009 - Waiting Area	N/A	N/A
1-D4-010 - Work Room	NO (-74.8%)	NO
1-D4-012 - Mould Room	N/A	N/A
1-D4-013 - Mould Room	N/A	N/A
1-D6-001 - Office	N/A	N/A
1-D6-003 - Meeting Room (6p)	N/A	N/A
1-D6-004 - Office	N/A	N/A
1-D6-005 - Meeting Room (4p)	N/A	N/A
1-D6-009 - Office	N/A	N/A
1-D6-010 - Office	N/A	N/A
1-D6-016 - Management Office (4p)	NO (-76.6%)	NO
1-D6-017 - AC Staff Office (9p)	NO (-63.3%)	NO
1-D6-019 - Equipment Decontamination	N/A	N/A
1-D6-020 - Dietetic Clinic Room	NO (-62.8%)	NO
1-D6-021 - Dietetic Clinic Room	N/A	N/A
1-D6-023 - Reception (2p)	N/A	N/A
1-D6-025 - Infant Measuring Room	N/A	N/A
1-D6-027 - Treament Room OT	NO (-68.8%)	NO
1-D6-028 - Treatment Room Physio	NO (-67.8%)	NO
1-D6-029 - Treatment Room Physio	NO (-68.8%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
1-D6-030 - Treatment Room DF	NO (-68.3%)	NO
1-D6-032 - Treatment Room DF	NO (-79.6%)	NO
1-D6-035 - Treatment Room DF	NO (-48.2%)	NO
1-D6-036 - Treatment Room OT equipment	NO (-79.2%)	NO
1-D6-039 - Rehab Room Physio	NO (-72.9%)	NO
1-D6-040 - Splinting Casting Room	NO (-76.6%)	NO
1-D6-042 - Pantry	N/A	N/A
1-D6-046 - Rehab Room OT	NO (-86.3%)	NO
1-D6-048 - Rehab Room Physio	NO (-86.3%)	NO
1-D6-053 - Rehab Room Physio	N/A	N/A
1-D6-054 - Rehab Room	N/A	N/A
1-D7-003 - Dressing Room	N/A	N/A
1-D7-004 - Sluice	N/A	N/A
1-D7-005 - Office	N/A	N/A
1-D7-006 - Dressing Room	N/A	N/A
1-D7-007 - Disp Hold	N/A	N/A
1-T1-003 - IT Node Room	N/A	N/A
1-T1-004 - IT Node Room	N/A	N/A
2 - Office	NO (-59.6%)	NO
2 - Office	NO (-61.6%)	NO
2-R1-001 - Staff Room	N/A	N/A
2-R1-002 - Office	N/A	N/A
2-R1-003 - Meeting Room (4p)	N/A	N/A
2-R1-004 - Office	N/A	N/A
2-R1-006 - Meeting Room (6p)	N/A	N/A
2-R1-010 - Office	N/A	N/A
2-R1-011 - Office	N/A	N/A
2-R1-012 - Office	N/A	N/A
2-R1-015 - Meeting Room (6p)	N/A	N/A
2-R1-017 - Office	N/A	N/A
2-R1-018 - Office	N/A	N/A
2-R1-019 - Office	N/A	N/A
2-R1-023 - Meeting Room (4p)	N/A	N/A
2-R1-024 - Office	N/A	N/A
2-R1-025 - Office	NO (-63.5%)	NO
2-R1-027 - Meeting Room (4p)	N/A	N/A
2-R1-028 - Meeting Room (4p)	N/A	N/A
2-R1-029 - Office	N/A	N/A
2-R1-030 - Office	N/A	N/A
2-R1-031 - Office	N/A	N/A
2-R1-036 - Meeting Room (4p)	N/A	N/A
2-R1-039 - Office	N/A	N/A
2-R1-040 - Office	N/A	N/A
2-R1-041 - Office	N/A	N/A
2-R1-042 - Office	N/A	N/A
2-R1-045 - Meeting Room (4p)	N/A	N/A
2-R1-046 - Meeting Room (4p)	N/A	N/A
2-R1-048 - Office	NO (-48.6%)	NO
2-R1-049 - Open Plan Desk Area	NO (-79.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
2-R1-049 - Open Plan Desk Area	NO (-71.7%)	NO
2-R1-051 - Open Plan Desk Area	NO (-77.7%)	NO
2-R1-052 - Open Plan Desk Area	NO (-88.2%)	NO
2-R1-052 - Open Plan Desk Area	NO (-70.7%)	NO
2-R1-052 - Open Plan Desk Area	NO (-56.3%)	NO
2-R1-053 - Open Plan Desk Area	NO (-80.4%)	NO
2-R1-054 - Open Plan Desk Area	NO (-53%)	NO
2-R1-055 - Open Plan Desk Area	NO (-79.4%)	NO
2-R1-055 - Open Plan Desk Area	NO (-59.1%)	NO
2-R1-055 - Open Plan Desk Area	NO (-78.2%)	NO
2-R1-055 - Open Plan Desk Area	NO (-54.4%)	NO
2-T1-005 - IT Node Room	N/A	N/A
2-T1-006 - IT Node Room	N/A	N/A
3-H3-001 - Workshop/Tutorial Room 3	NO (-72.6%)	NO
3-H3-002 - Control Room	N/A	N/A
3-H3-004 - Workshop/Tutorial Room 2	N/A	N/A
3-H3-005 - Scenario Room	NO (-69.7%)	NO
3-H3-010 - Workshop/Tutorial Room 1	N/A	N/A
3-H3-013 - Manual Handling Health and Safety	NO (-79.5%)	NO
3-H3-014 - Practice Based Educators Office	NO (-71.7%)	NO
3-H3-015 - Meeting Room	NO (-72.3%)	NO
3-H3-016 - Seminar Room	NO (-72.9%)	NO
3-H3-018 - Management/Admin Office	N/A	N/A
3-H3-019 - Computer Games	N/A	N/A
3-K2-002 - Reception	N/A	N/A
3-K2-003 - Office (1p)	N/A	N/A
3-K2-006 - Lounge non-residents	N/A	N/A
3-K2-008 - Family Room 1	N/A	N/A
3-K2-010 - Family Room 3	NO (-67%)	NO
3-K2-012 - Family Room 2	NO (-78.8%)	NO
3-K2-014 - Family Room 4	NO (-62.4%)	NO
3-K2-016 - Family Room 5	N/A	N/A
3-K2-019 - Family Room (Acc 1)	N/A	N/A
3-K2-021 - Family Room 6	NO (-66.9%)	NO
3-K2-023 - Family Room 7	NO (-68.6%)	NO
3-K2-025 - Family Room8 (4p)	NO (-78.3%)	NO
3-K2-027 - Family Room 9	NO (-79.3%)	NO
3-K2-029 - Family Room 10	NO (-78.5%)	NO
3-K2-032 - Family Room 11	NO (-78.4%)	NO
3-K2-035 - Family Room 12	NO (-78.4%)	NO
3-K2-037 - Family Room 13	NO (-78.8%)	NO
3-K2-040 - Family Room 14	NO (-78.2%)	NO
3-K2-044 - Family Room 15	NO (-78.6%)	NO
3-K2-045 - Family Room 16 (4p)	NO (-78.5%)	NO
3-K2-051 - Residents Day Room	N/A	N/A
3-K2-053 - Residents Play Room	N/A	N/A
3-K2-059 - Family Room 17 (4p)	NO (-84.4%)	NO
3-K2-060 - Family Room 2	NO (-53.5%)	NO
3-K2-062 - Family Room 18 (4p)	NO (-78.3%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
3-K2-062 - Family Room 18 (4p)	N/A	N/A
3-K2-062 - Family Room 18 (4p)	N/A	N/A
3-K2-065 - Family Room 19 (4p)	NO (-78.8%)	NO
3-K2-066 - Family Room 20 (4p)	NO (-77.1%)	NO
3-K2-069 - Family Room 21 (4p)	N/A	N/A
3-K2-072 - Family Room 22 (4p)	N/A	N/A
3-K2-073 - Family Room 23 (4p)	N/A	N/A
3-K2-075 - Family Room 24 (4p)	NO (-78.8%)	NO
3-K2-085 - Fundraisers	N/A	N/A
3-T1-004 - IT Node Room	N/A	N/A
3-T1-005 - I Node Room	N/A	N/A
4 - Atrium	NO (-92%)	NO
4 - Plant	N/A	N/A
4 - Plant	N/A	N/A
G - Reception Area	N/A	N/A
G-D1-0001 - Staff Room	N/A	N/A
G-D1-002 - Baby Infant Feed	N/A	N/A
G-D1-008 - Plaster Suite 3 bays	N/A	N/A
G-D1-010 - Orthotics Workshop	N/A	N/A
G-D1-011 - Consult Exam	NO (-78.8%)	NO
G-D1-012 - Consult Exam	NO (-77.9%)	NO
G-D1-013 - Consult Exam	NO (-77.9%)	NO
G-D1-014 - Consult Exam	NO (-77.9%)	NO
G-D1-016 - Consult Exam Child Protection	N/A	N/A
G-D1-020 - Phlebotomy	N/A	N/A
G-D1-021 - Child Protection Room	N/A	N/A
G-D1-024 - Pantry	N/A	N/A
G-D1-025 - Physical Measurement	N/A	N/A
G-D1-028 - Infant Measuring Room	N/A	N/A
G-D1-032 - Consult Exam	NO (-84.8%)	NO
G-D1-033 - Treatment Room	NO (-78.4%)	NO
G-D1-034 - Consult Exam	NO (-82%)	NO
G-D1-035 - Consult Exam	NO (-78.3%)	NO
G-D1-036 - Consult Exam	NO (-75.4%)	NO
G-D1-037 - Meeting Room	N/A	N/A
G-D1-038 - Consult Exam	NO (-74.2%)	NO
G-D1-039 - Consult Exam	NO (-72.1%)	NO
G-D1-040 - Consult multi-disciplinary	NO (-89.1%)	NO
G-D1-041 - Outpatient Management Office	NO (-84.8%)	NO
G-D2-001 - Waiting Area	N/A	N/A
G-D2-003 - Cardiology Admin Office (2p)	N/A	N/A
G-D2-005 - Cardio Pulmonary Exercise Lab	NO (-52.4%)	NO
G-D2-006 - Echocardiography Room	N/A	N/A
G-D2-009 - ECG Procedure Room	N/A	N/A
G-D2-010 - Respiratory Admin Office (3p)	N/A	N/A
G-D2-012 - Domiciliary Sleep Studies	NO (-51%)	NO
G-D2-013 - Lung Function Lab	N/A	N/A
G-D2-014 - Exercise Tolerance Test Room	NO (-68%)	NO
G-D2-015 - Physical Measurement	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
G-D5-002 - Laboratory	N/A	N/A
G-D5-004 - Surgery multi-disciplinary	N/A	N/A
G-D5-007 - Recovery	NO (-55.1%)	NO
G-D5-008 - Surgery	N/A	N/A
G-D5-009 - Surgery	N/A	N/A
G-D5-010 - Surgery	N/A	N/A
G-D8-001 - Open Plan Office	NO (-65.9%)	NO
G-D8-002 - Interview Room	N/A	N/A
G-E1-003 - Sub-Waiting Area/Supervised Play	N/A	N/A
G-I1-003 - Security Office	NO (-93.7%)	NO
G-I1-006 - Retail Shop	N/A	N/A
G-I1-007 - Catering Shop	N/A	N/A
G-K1-001 - Meeting Room	NO (-59%)	NO
G-K1-002 - Meeting Room	NO (-67.7%)	NO
G-K1-003 - Office Family Support (3p)	NO (-77.5%)	NO
G-K1-004 - Office Staff SKFF (4p)	NO (-65.5%)	NO
G-K1-005 - Office Staff SKFF (3p)	NO (-55.2%)	NO
G-K1-006 - Waiting Area	N/A	N/A
G-K1-010 - Interview Room	N/A	N/A
G-K1-011 - Office Manager (2p)	NO (-67.8%)	NO
G-K1-012 - Office Kindred (3p pod)	NO (-64%)	NO
G-K1-015 - Interview Room	N/A	N/A
G-K1-017 - Dropin Multi-purpose room	NO (-100%)	NO
G-K1-021 - Complementary Therapy Room	NO (-77.2%)	NO
G-K1-024 - Drop-in Office	NO (-81.3%)	NO
G-T1-006 - IT Node Room	N/A	N/A
G-T1-007 - IT Node Room	N/A	N/A

Criterion 4: The performance of the building, as built, should be consistent with the BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	9677	9677
External area [m²]	10626.9	10626.9
Weather	EDI	EDI
Infiltration [m³/hm²@ 50Pa]	5	5
Average conductance [W/K]	3831.63	0
Average U-value [W/m²K]	0.36	0
Alpha value* [%]	8.18	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
100	**C2 Residential Inst.: Hospitals and Care Homes**
	C2 Residential Inst.: Residential schools
	C2 Residential Inst.: Universities and colleges
	C2A Secure Residential Inst.
	Residential spaces
	D1 Non-residential Inst.: Community/Day Centre
	D1 Non-residential Inst.: Libraries, Museums, and Galleries
	D1 Non-residential Inst.: Education
	D1 Non-residential Inst.: Primary Health Care Building
	D1 Non-residential Inst.: Crown and County Courts
	D2 General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	73.66	45.34
Cooling	3.04	1.04
Auxiliary	26.02	17.29
Lighting	39.77	30.7
Hot water	81.8	23.44
Equipment*	80.71	80.71
TOTAL**	**159.08**	**117.82**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	3.37	0
Wind turbines	0	0
CHP generators	65.2	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	145.94	150.68
Primary energy* [kWh/m²]	169.14	213.35
Total emissions [kg/m²]	30.1	39

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	77.6	0	0.3	0	36.1	0.91	0	0.97	0
	Notional	96.3	0	32	0	22.3	0.87	0	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	1.4	260.8	0	27.1	68	0.7	2.61	0.97	4.09
	Notional	8.1	120.4	2.7	8.6	44.6	0.83	3.79	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	8	134.8	0	11.3	23.7	0.87	3.23	0.97	4.09
	Notional	16.7	88.1	5.6	6.3	30.2	0.83	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	222.4	0	0.7	0	1.5	0.91	0	0.97	0
	Notional	252.7	0	84.2	0	1.5	0.83	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	80.5	0	0.2	0	15.7	0.91	0	0.97	0
	Notional	90.1	0	30	0	15.7	0.83	0	----	----

Key to terms

Heat dem [MJ/m2] = Heating energy demand
Cool dem [MJ/m2] = Cooling energy demand
Heat con [kWh/m2] = Heating energy consumption
Cool con [kWh/m2] = Cooling energy consumption
Aux con [kWh/m2] = Auxiliary energy consumption
Heat SSEFF = Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER = Cooling system seasonal energy efficiency ratio
Heat gen SSEFF = Heating generator seasonal efficiency
Cool gen SSEER = Cooling generator seasonal energy efficiency ratio
ST = System type
HS = Heat source
HFT = Heating fuel type
CFT = Cooling fuel type

Key Features

The BCO can give particular attention to items with specifications that are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.2	TEMP0018:Surf[4]
Floor	0.2	0.2	1___0000:Surf[0]
Roof	0.15	0.15	3CRR0002:Surf[0]
Windows, roof windows, and rooflights	1.5	1.6	TEMP0018:Surf[0]
Personnel doors	1.5	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

BRUKL Output Document

HM Government

Compliance with England and Wales Building Regulations Part L 2010

Project name

Block_B_Part_L_sim000

As designed

Date: Tue Aug 26 03:04:45 2014

Administrative information

Building Details

Address: Address 1, City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

BRUKL compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Criterion 1: The calculated CO_2 emission rate for the building should not exceed the target

1.1	CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	35.5
1.2	Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	35.5
1.3	Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	26.2
1.4	Are emissions from the building less than or equal to the target?	BER =< TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

2.a Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.2	0.2	BDRM0000:Surf[3]
Floor	0.25	0.2	0.2	BDRM0000:Surf[0]
Roof	0.25	0.15	0.15	FLTB0001:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.6	1.6	BDRM0000:Surf[1]
Personnel doors	2.2	2.19	2.19	CRCL0309:Surf[1]
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]
$U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

* There might be more than one surface where the maximum U-value occurs.
** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.
*** Display windows and similar glazing are excluded from the U-value check.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	-	0	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

2- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

4- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	**Supply/extract SFP [W/(l/s)]**	**HR seasonal efficiency**	**Exhaust SFP [W/(l/s)]**
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Fault_Bedrooms_(NCM_Bedroom)	1.5	-	-
B-1-Clinical Waste Clean	1.5	-	-
B-1-Clinical Waste Dirty	1.5	-	-
B-2-General Works	1.5	-	-
B-3-Works Area	1.5	-	-
B-5-Confidential Waste	0.8	-	0.6
B-6-Kitchen Waste	0.8	-	0.6
B-7-White Goods	0.8	-	0.6
B-8-WEEE Lamp	0.8	-	0.6
B-9-Damaged Furniture	0.8	-	0.6
B-I2-002-DSR	0.8	-	0.6
B-I2-004-Beds Store	0.8	-	0.6
B-I2-005-Toys Store	0.8	-	0.6
B-S1-001-Prep/Cooking Area	1.5	-	-
B-S1-002-Prep/Cooking Area	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
B-S1-003-Diet Prep Area	1.5	-	-
B-S1-004-Diet Store	0.8	-	0.6
B-S1-005-Temp Ctr Sandwich Prep	1.5	-	-
B-S1-006-Bakery Prep Area	1.5	-	-
B-S1-007-Staff Room	1.5	-	-
B-S1-008-Office (5P)	1.5	-	-
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-010-M Staff Changing inc Shower	0.8	-	0.6
B-S1-010-M Staff Changing inc Shower	0.8	-	0.6
B-S1-010-M Staff Changing inc Shower	0.8	-	0.6
B-S1-011-Kitchen Equipment	0.8	-	0.6
B-S1-012-Pan Wash	1.5	-	-
B-S1-013-Returned Trolleys	0.8	-	0.6
B-S1-014-Trolley Wash Area	1.5	-	-
B-S1-015-Refuse	0.8	-	0.6
B-S1-017-Clean Trolley Park	0.8	-	0.6
B-S1-018-Disposables/Detergant	0.8	-	0.6
B-S1-018-DSR	0.8	-	0.6
B-S1-019-Raw Meat	1.5	-	-
B-S1-020-Veg Store	0.8	-	0.6
B-S1-021-Freezer	0.8	-	0.6
B-S1-022-Freezer	0.8	-	0.6
B-S1-023-Receipt Bay	0.8	-	0.6
B-S1-025-Dairy Store	0.8	-	0.6
B-S1-027-Dry Goods	0.8	-	0.6
B-S1-027-Weighing	1.5	-	-
B-S3-002-Linen Pool (Clean)	0.8	-	0.6
B-S3-003-Supplies Store	0.8	-	0.6
B-S3-004-Laundry (Microfibre)	1.5	-	-
B-S3-005-Linen Pool (Dirty)	0.8	-	0.6
B-S3-007-Cleaning Equipment Store	0.8	-	0.6
B-S3-008-Sanitary Bins Store	0.8	-	0.6
B-S3-009-DSR	0.8	-	0.6
B-S3-010-Bulk Equipment Store	0.8	-	0.6
B-S3-011-Station/Phone Booth	0.8	-	0.6
B-S3-012-Domestic Services Office (SP)	1.5	-	-
B-S3-013-Curtain Store	0.8	-	0.6
B-S4-001-Storage/Holding Area	0.8	-	0.6
B-S4-003-Mailroom	1.5	-	-
B-S4-004-Office (2P)	1.5	-	-
B-S4-005-Porters Office	1.5	-	-
B-S6-003-Shower	0.8	-	0.6
B-S6-004-Shower	0.8	-	0.6
B-S6-004-Workshop (NPD)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
B-S6-005-NHSL Office	1.5	-	-
B-S6-006-NHSL Store	0.8	-	0.6
B-S6-009-Workshop (NHSL)	1.5	-	-
B-S6-010-WC (Staff)	0.8	-	0.6
B-S6-014-Store	0.8	-	0.6
B-S8-001-Trolley	0.8	-	0.6
B-T1-001-IT Node Room	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
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Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
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Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
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Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
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Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
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Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
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Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Clinic_(NCM_Consulting)	1.5	-	-
Clinic_(NCM_Consulting)	1.5	-	-
Clinic_(NCM_Consulting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Dental_(NCM_A&E_Consulting)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Freezer_(NCM_Cupboard)	-	-	0.6
Freezer_(NCM_Cupboard)	-	-	0.6
Injection_(NCM_A&E_Consulting)	1.5	-	-
Injection_(NCM_A&E_Consulting)	1.5	-	-
Injection_(NCM_A&E_Consulting)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laundry_(NCM_Laundry)	1.5	-	-
Laundry_(NCM_Laundry)	1.5	-	-
Library_(NCM_Classroom)	1.5	-	-
Library_(NCM_Classroom)	1.5	-	-
Library_(NCM_Classroom)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Nappy Change_(NCM_Toilet)	-	-	0.6
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Pantry_(NCM_Cupboard)	-	-	0.6
Photocopy_(NCM_Office)	1.5	-	-
Photocopy_(NCM_Office)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Trays_(NCM_Cupboard)	-	-	0.6
Trays_(NCM_Cupboard)	-	-	0.6
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ward Areas_(NCM_Wards_Patients)	10	-
Bedrooms_(NCM_Bedroom)	140	-
Fault_Bedrooms_(NCM_Bedroom)	40	-
Anaesthetic_(NCM_A&E_Consulting)	350	-
Anaesthetic_(NCM_A&E_Consulting)	440	-
Anaesthetic_(NCM_A&E_Consulting)	430	-
Anaesthetic_(NCM_A&E_Consulting)	420	-
Anaesthetic_(NCM_A&E_Consulting)	430	-
Anaesthetic_(NCM_A&E_Consulting)	430	-
Anaesthetic_(NCM_A&E_Consulting)	440	-
Anaesthetic_(NCM_A&E_Consulting)	420	-
B-1-Clinical Waste Clean	170	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
B-1-Clinical Waste Dirty	230	-
B-2-General Works	190	-
B-3-Works Area	130	-
B-5-Confidential Waste	50	-
B-6-Kitchen Waste	50	-
B-7-White Goods	50	-
B-8-WEEE Lamp	30	-
B-9-Damaged Furniture	60	-
B-COR-001-Corridor	170	-
B-COR-002-Corridor	290	-
B-COR-003-Corridor	280	-
B-COR-004-Corridor	280	-
B-COR-005-Riser Access	230	-
B-COR-006-Corridor	260	-
B-COR-007-Corridor	200	-
B-COR-008-Corridor	170	-
B-COR-009-Corridor	110	-
B-COR-010-Corridor	170	-
B-COR-012-Corridor	590	-
B-COR-013-Corridor	200	-
B-COR-014-Corridor	170	-
B-Corridor	390	-
B-Corridor	120	-
B-I2-002-DSR	100	-
B-I2-004-Beds Store	280	-
B-I2-005-Toys Store	40	-
B-PLANT-001-Plant Room 15	450	-
B-PLANT-002-Plant Room 15	90	-
B-PLANT-003-Plant Room 15	140	-
B-Plant-004- Plant Room 15	260	-
B-Plant-006- Plant Room 15	440	-
B-Plant-007- Plant Room 15	550	-
B-PLANT-009-Plant Room 15	620	-
B-Plant-010- Plant Room 15	190	-
B-Plant-012- Plant Room 15	120	-
B-Plant-013- Plant Room 15	140	-
B-PLANT-015-Plant Room 15	130	-
B-Plant-018- Plant Room 15	210	-
B-S1-001-Prep/Cooking Area	750	-
B-S1-002-Prep/Cooking Area	130	-
B-S1-003-Diet Prep Area	100	-
B-S1-004-Diet Store	20	-
B-S1-005-Temp Ctr Sandwich Prep	140	-
B-S1-006-Bakery Prep Area	100	-
B-S1-007-Staff Room	90	-
B-S1-008-Office (5P)	90	-
B-S1-009-F Staff Changing inc Shower	10	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
B-S1-009-F Staff Changing inc Shower	10	-
B-S1-009-F Staff Changing inc Shower	20	-
B-S1-009-F Staff Changing inc Shower	10	-
B-S1-010-M Staff Changing inc Shower	10	-
B-S1-010-M Staff Changing inc Shower	10	-
B-S1-010-M Staff Changing inc Shower	20	-
B-S1-011-Kitchen Equipment	20	-
B-S1-012-Pan Wash	110	-
B-S1-013-Returned Trolleys	20	-
B-S1-014-Trolley Wash Area	40	-
B-S1-015-Refuse	40	-
B-S1-017-Clean Trolley Park	90	-
B-S1-018-Disposables/Detergant	20	-
B-S1-018-DSR	100	-
B-S1-019-Raw Meat	80	-
B-S1-020-Veg Store	20	-
B-S1-021-Freezer	30	-
B-S1-022-Freezer	30	-
B-S1-023-Receipt Bay	10	-
B-S1-024-Corridor	130	-
B-S1-025-Dairy Store	30	-
B-S1-027-Dry Goods	30	-
B-S1-027-Weighing	60	-
B-S3-001-Corridor	30	-
B-S3-002-Linen Pool (Clean)	230	-
B-S3-003-Supplies Store	60	-
B-S3-004-Laundry (Microfibre)	170	-
B-S3-005-Linen Pool (Dirty)	100	-
B-S3-006-Corridor	70	-
B-S3-007-Cleaning Equipment Store	30	-
B-S3-008-Sanitary Bins Store	20	-
B-S3-009-DSR	90	-
B-S3-010-Bulk Equipment Store	30	-
B-S3-011-Station/Phone Booth	10	-
B-S3-012-Domestic Services Office (S9)	90	-
B-S3-013-Curtain Store	20	-
B-S4-001-Storage/Holding Area	280	-
B-S4-002-Lobby	30	-
B-S4-003-Mailroom	90	-
B-S4-004-Office (2P)	40	-
B-S4-005-Porters Office	50	-
B-S6-001-Corridor	50	-
B-S6-001-Corridor	40	-
B-S6-003-Shower	10	-
B-S6-004-Shower	10	-
B-S6-004-Workshop (NPD)	1410	-
B-S6-005-NHSL Office	70	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
B-S6-006-NHSL Store	80	-
B-S6-009-Workshop (NHSL)	740	-
B-S6-010-WC (Staff)	30	-
B-S6-014-Store	60	-
B-S8-001-Trolley	70	-
B-Stair	120	-
B-T1-001-IT Node Room	130	-
B-Z1-002-Stair 02	120	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	50	-
Bays_(NCM_Circulation)	60	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	60	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	70	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	70	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	100	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	140	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	260	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	150	-
Bedrooms_(NCM_Bedroom)	150	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	230	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	170	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	160	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	70	-
Bedrooms_(NCM_Bedroom)	250	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	140	-
Bedrooms_(NCM_Bedroom)	50	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	90	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	40	-
BZ1-003-Stair 03	120	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	80	-
Changing Facilities_(NCM_Changing_Facilities)	240	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	240	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	240	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	80	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	240	-
Changing Facilities_(NCM_Changing_Facilities)	80	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Changing Facilities_(NCM_Changing_Facilities)	50	-
Changing Facilities_(NCM_Changing_Facilities)	50	-
Changing Facilities_(NCM_Changing_Facilities)	50	-
Changing Facilities_(NCM_Changing_Facilities)	50	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	190	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	150	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	520	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	310	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	560	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	310	-
Circulation_(NCM_Circulation_Area)	360	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	360	-
Circulation_(NCM_Circulation_Area)	250	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	250	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	290	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	310	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	440	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	120	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	420	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	500	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	290	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	500	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	580	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	220	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	390	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	420	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	190	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	200	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	400	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	480	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	290	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	340	-
Circulation_(NCM_Circulation_Area)	350	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	190	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	390	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	280	-
Circulation_(NCM_Circulation_Area)	460	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	150	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	590	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	520	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	70	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	350	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	620	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	360	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	280	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	110	-
Clinic_(NCM_Consulting)	130	-
Clinic_(NCM_Consulting)	120	-
Clinic_(NCM_Consulting)	700	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	40	-
Consulting_(NCM_Consulting)	90	-
Consulting_(NCM_Consulting)	260	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	130	-
Consulting_(NCM_Consulting)	170	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	170	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	160	-
Dental_(NCM_A&E_Consulting)	170	-
Dining_(NCM_Eating/Drinking)	170	-
Dining_(NCM_Eating/Drinking)	60	-
Dining_(NCM_Eating/Drinking)	390	-
Dining_(NCM_Eating/Drinking)	40	-
Dining_(NCM_Eating/Drinking)	70	-
Dining_(NCM_Eating/Drinking)	80	-
Dining_(NCM_Eating/Drinking)	40	-
Dining_(NCM_Eating/Drinking)	30	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
DSR_(NCM_Cupboard)	70	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	100	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	110	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	110	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	100	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	20	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	80	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	20	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	100	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	20	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	80	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Equipment_(NCM_Cupboard)	360	-
Equipment_(NCM_Cupboard)	30	-
Equipment_(NCM_Cupboard)	150	-
Equipment_(NCM_Cupboard)	90	-
Equipment_(NCM_Cupboard)	60	-
Equipment_(NCM_Cupboard)	160	-
Equipment_(NCM_Cupboard)	40	-
Equipment_(NCM_Cupboard)	90	-
Equipment_(NCM_Cupboard)	60	-
Equipment_(NCM_Cupboard)	290	-
Equipment_(NCM_Cupboard)	70	-
Equipment_(NCM_Cupboard)	50	-
Equipment_(NCM_Cupboard)	100	-
Equipment_(NCM_Cupboard)	100	-
Equipment_(NCM_Cupboard)	90	-
Equipment_(NCM_Cupboard)	100	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	160	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	140	-
Examination_(NCM_Consulting)	160	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Examination_(NCM_Consulting)	190	-
Examination_(NCM_Consulting)	170	-
Examination_(NCM_Consulting)	160	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	230	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	160	-
Freezer_(NCM_Cupboard)	30	-
Freezer_(NCM_Cupboard)	50	-
Injection_(NCM_A&E_Consulting)	120	-
Injection_(NCM_A&E_Consulting)	120	-
Injection_(NCM_A&E_Consulting)	180	-
Interview_(NCM_Offices)	190	-
Interview_(NCM_Offices)	50	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	300	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	40	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	50	-
Interview_(NCM_Offices)	180	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	130	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	80	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	110	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	100	-
IPS_(NCM_IT)	30	-
IPS_(NCM_IT)	30	-
IPS_(NCM_IT)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
IPS_(NCM_IT)	50	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	120	-
IT_(NCM_Office_IT)	360	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	140	-
IT_(NCM_Office_IT)	110	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	130	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	120	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	90	-
Kitchen_(NCM_Food_Prep)	130	-
Kitchen_(NCM_Food_Prep)	110	-
Kitchen_(NCM_Food_Prep)	110	-
Kitchen_(NCM_Food_Prep)	40	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	70	-
Kitchen_(NCM_Food_Prep)	180	-
Kitchen_(NCM_Food_Prep)	180	-
Kitchen_(NCM_Food_Prep)	90	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	60	-
Kitchen_(NCM_Food_Prep)	120	-
Kitchen_(NCM_Food_Prep)	190	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	170	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	50	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	100	-
Laboratory_(NCM_Laboratory)	160	-
Laboratory_(NCM_Laboratory)	180	-
Laboratory_(NCM_Laboratory)	510	-
Laboratory_(NCM_Laboratory)	110	-
Laboratory_(NCM_Laboratory)	190	-
Laboratory_(NCM_Laboratory)	1440	-
Laboratory_(NCM_Laboratory)	550	-
Laboratory_(NCM_Laboratory)	130	-
Laundry_(NCM_Laundry)	70	-
Laundry_(NCM_Laundry)	100	-
Library_(NCM_Classroom)	240	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Library_(NCM_Classroom)	250	-
Library_(NCM_Classroom)	4540	-
Lobby_(NCM_Public_Circulation_Area)	20	-
Lounge_(NCM_Waiting)	380	15
Lounge_(NCM_Waiting)	140	15
Lounge_(NCM_Waiting)	560	15
Lounge_(NCM_Waiting)	310	15
Lounge_(NCM_Waiting)	170	15
Lounge_(NCM_Waiting)	230	15
Lounge_(NCM_Waiting)	150	15
Lounge_(NCM_Waiting)	350	15
Lounge_(NCM_Waiting)	440	15
Lounge_(NCM_Waiting)	160	15
Lounge_(NCM_Waiting)	160	15
Lounge_(NCM_Waiting)	190	15
Lounge_(NCM_Waiting)	130	15
Lounge_(NCM_Waiting)	180	15
Lounge_(NCM_Waiting)	270	15
Meeting_(NCM_Office_Meeting)	90	-
Meeting_(NCM_Office_Meeting)	240	-
Meeting_(NCM_Office_Meeting)	230	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	370	-
Meeting_(NCM_Office_Meeting)	90	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	260	-
Meeting_(NCM_Office_Meeting)	220	-
Meeting_(NCM_Office_Meeting)	240	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	300	-
Meeting_(NCM_Office_Meeting)	300	-
Meeting_(NCM_Office_Meeting)	100	-
Nappy Change_(NCM_Toilet)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	100	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Office_(NCM_Office)	90	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	130	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	280	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	350	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	30	-
Office_(NCM_Office)	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	880	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	100	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	100	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	130	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	300	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Office_(NCM_Office)	20	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	80	-
Operating_(NCM_Operating_Theatre)	3700	-
Operating_(NCM_Operating_Theatre)	680	-
Operating_(NCM_Operating_Theatre)	840	-
Operating_(NCM_Operating_Theatre)	2720	-
Operating_(NCM_Operating_Theatre)	640	-
Operating_(NCM_Operating_Theatre)	700	-
Operating_(NCM_Operating_Theatre)	3030	-
Operating_(NCM_Operating_Theatre)	1090	-
Operating_(NCM_Operating_Theatre)	710	-
Operating_(NCM_Operating_Theatre)	890	-
Operating_(NCM_Operating_Theatre)	2860	-
Operating_(NCM_Operating_Theatre)	650	-
Operating_(NCM_Operating_Theatre)	710	-
Operating_(NCM_Operating_Theatre)	3040	-
Operating_(NCM_Operating_Theatre)	690	-
Operating_(NCM_Operating_Theatre)	3050	-
Operating_(NCM_Operating_Theatre)	520	-
Operating_(NCM_Operating_Theatre)	670	-
Operating_(NCM_Operating_Theatre)	3820	-
Operating_(NCM_Operating_Theatre)	630	-
Operating_(NCM_Operating_Theatre)	3060	-
Operating_(NCM_Operating_Theatre)	3040	-
Operating_(NCM_Operating_Theatre)	620	-
Operating_(NCM_Operating_Theatre)	820	-
Operating_(NCM_Operating_Theatre)	3030	-
Operating_(NCM_Operating_Theatre)	1110	-
Operating_(NCM_Operating_Theatre)	640	-
Operating_(NCM_Operating_Theatre)	620	-
Operating_(NCM_Operating_Theatre)	700	-
Operating_(NCM_Operating_Theatre)	1130	-
Operating_(NCM_Operating_Theatre)	810	-
Operating_(NCM_Operating_Theatre)	660	-
Operating_(NCM_Operating_Theatre)	700	-
Operating_(NCM_Operating_Theatre)	1080	-
Operating_(NCM_Operating_Theatre)	3040	-
Operating_(NCM_Operating_Theatre)	690	-
Operating_(NCM_Operating_Theatre)	720	-
Pantry_(NCM_Cupboard)	80	-
Photocopy_(NCM_Office)	30	-
Photocopy_(NCM_Office)	30	-
Plant_(NCM_Light_Plant)	770	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Plant_(NCM_Light_Plant)	1430	-
Plant_(NCM_Light_Plant)	1810	-
Plant_(NCM_Light_Plant)	7300	-
Preparation_(NCM_A&E_Consulting)	220	-
Preparation_(NCM_A&E_Consulting)	260	-
Preparation_(NCM_A&E_Consulting)	90	-
Preparation_(NCM_A&E_Consulting)	210	-
Preparation_(NCM_A&E_Consulting)	180	-
Preparation_(NCM_A&E_Consulting)	360	-
Reception_(NCM_Reception)	100	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	80	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	70	15
Reception_(NCM_Reception)	290	15
Reception_(NCM_Reception)	240	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	60	15
Reception_(NCM_Reception)	100	15
Reception_(NCM_Reception)	110	15
Reception_(NCM_Reception)	230	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	80	15
Reception_(NCM_Reception)	190	15
Reception_(NCM_Reception)	90	15
Reception_(NCM_Reception)	100	15
Reception_(NCM_Reception)	50	15
Recovery_(NCM_Wards_Patients)	80	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	310	-
Recovery_(NCM_Wards_Patients)	60	-
Recovery_(NCM_Wards_Patients)	80	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	40	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	40	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	40	-
Recovery_(NCM_Wards_Patients)	80	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	370	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Seminar_(NCM_Lecturetheatre)	130	-
Seminar_(NCM_Lecturetheatre)	140	-
Seminar_(NCM_Lecturetheatre)	240	-
Seminar_(NCM_Lecturetheatre)	290	-
Seminar_(NCM_Lecturetheatre)	130	-
Seminar_(NCM_Lecturetheatre)	300	-
Seminar_(NCM_Lecturetheatre)	150	-
Seminar_(NCM_Lecturetheatre)	260	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	10	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	50	-
Shower_(NCM_Bathroom)	20	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	10	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	50	-
Shower_(NCM_Bathroom)	10	-
Shower_(NCM_Bathroom)	50	-
Shower_(NCM_Bathroom)	40	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	160	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	130	-
Staff_(NCM_Meeting)	490	-
Staff_(NCM_Meeting)	50	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	340	-
Staff_(NCM_Meeting)	340	-
Staff_(NCM_Meeting)	60	-
Staff_(NCM_Meeting)	140	-
Staff_(NCM_Meeting)	820	-
Staff_(NCM_Meeting)	140	-
Staff_(NCM_Meeting)	60	-
Staff_(NCM_Meeting)	100	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	30	-
Staff_(NCM_Meeting)	10	-
Staff_(NCM_Meeting)	30	-
Staff_(NCM_Meeting)	80	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	620	-
Staff_(NCM_Meeting)	60	-
Staff_(NCM_Meeting)	250	-
Store_(NCM_Cupboard)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	90	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	60	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	250	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	270	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	100	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	80	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	60	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	80	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	70	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	60	-
Store_(NCM_Cupboard)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	60	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	90	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Trays_(NCM_Cupboard)	80	-
Trays_(NCM_Cupboard)	40	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	690	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	320	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	330	-
Treatment_(NCM_Treatment)	510	-
Treatment_(NCM_Treatment)	1360	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	330	-
Treatment_(NCM_Treatment)	910	-
Treatment_(NCM_Treatment)	400	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	540	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	270	-
Treatment_(NCM_Treatment)	190	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	270	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	790	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	250	-
Treatment_(NCM_Treatment)	420	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	910	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	50	-
Utility_(NCM_Cupboards)	60	-
Utility_(NCM_Cupboards)	60	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	60	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	50	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	50	-
Utility_(NCM_Cupboards)	40	-
Utility_(NCM_Cupboards)	40	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	50	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	100	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	100	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	120	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	120	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	70	-
Waiting_(NCM_Waiting)	260	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	320	15
Waiting_(NCM_Waiting)	1080	15
Waiting_(NCM_Waiting)	330	15
Waiting_(NCM_Waiting)	220	15
Waiting_(NCM_Waiting)	360	15
Waiting_(NCM_Waiting)	570	15
Waiting_(NCM_Waiting)	500	15
Waiting_(NCM_Waiting)	410	15
Waiting_(NCM_Waiting)	750	15
Waiting_(NCM_Waiting)	380	15
Waiting_(NCM_Waiting)	100	15
Waiting_(NCM_Waiting)	430	15
Waiting_(NCM_Waiting)	240	15
Waiting_(NCM_Waiting)	660	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	220	15
Waiting_(NCM_Waiting)	130	15
Waiting_(NCM_Waiting)	360	15
Waiting_(NCM_Waiting)	350	15
Waiting_(NCM_Waiting)	1230	15

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Waiting_(NCM_Waiting)	190	15
Waiting_(NCM_Waiting)	160	15
Waiting_(NCM_Waiting)	1030	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	380	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	110	15
Waiting_(NCM_Waiting)	470	15
Waiting_(NCM_Waiting)	380	15
Waiting_(NCM_Waiting)	700	15
Waiting_(NCM_Waiting)	260	15
Ward Areas_(NCM_Wards_Patients)	110	-
Ward Areas_(NCM_Wards_Patients)	40	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	40	-
Ward Areas_(NCM_Wards_Patients)	80	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	50	-
Ward Areas_(NCM_Wards_Patients)	70	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	50	-
Ward Areas_(NCM_Wards_Patients)	170	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	50	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	80	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	70	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	220	-
Ward Areas_(NCM_Wards_Patients)	190	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	70	-
Ward Areas_(NCM_Wards_Patients)	270	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	110	-
Ward Areas_(NCM_Wards_Patients)	60	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	220	-
Ward Areas_(NCM_Wards_Patients)	90	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	420	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	110	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1040	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	430	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	900	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	720	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	360	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	750	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	350	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1020	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	910	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1120	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	330	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	400	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	100	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	200	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1030	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	410	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1040	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	100	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1040	-

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-70.8%)	NO
Fault_Bedrooms_(NCM_Bedroom)	NO (-69.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
B-S1-007-Staff Room	N/A	N/A
B-S1-008-Office (5P)	N/A	N/A
B-S3-012-Domestic Services Office (SR)	N/A	N/A
B-S4-003-Mailroom	N/A	N/A
B-S4-004-Office (2P)	N/A	N/A
B-S4-005-Porters Office	N/A	N/A
B-S6-004-Workshop (NPD)	N/A	N/A
B-S6-005-NHSL Office	N/A	N/A
B-S6-009-Workshop (NHSL)	N/A	N/A
B-T1-001-IT Node Room	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-71.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61%)	NO
Bedrooms_(NCM_Bedroom)	NO (-26.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50%)	NO
Bedrooms_(NCM_Bedroom)	NO (-69.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-76.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-53.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-26.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-57.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-52.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-53.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-85.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-82.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	NO (-54.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-31%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-57.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-47.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-69.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-36%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-77.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-48.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.5%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-39%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-64%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-48.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-35.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.6%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-64.3%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-52.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-48.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-68.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-62.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-45.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.7%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	NO (-67.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-70.7%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-66.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-18.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.8%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-54.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-62.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.3%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-46.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.1%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-44.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.5%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-48.4%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-64.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.8%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-67%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-88.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-75.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51%)	NO
Bedrooms_(NCM_Bedroom)	NO (-80.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-72.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64%)	NO
Bedrooms_(NCM_Bedroom)	NO (-77.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-69%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-69.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-72.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-34.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-35.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-79.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-82.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-14.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.1%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-63.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-70%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49%)	NO
Bedrooms_(NCM_Bedroom)	NO (-47.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-53.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-78.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-47.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.3%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-50%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-94.9%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-55.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.9%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-52.5%)	NO
Clinic_(NCM_Consulting)	N/A	N/A
Clinic_(NCM_Consulting)	N/A	N/A
Clinic_(NCM_Consulting)	NO (-45.8%)	NO
Consulting_(NCM_Consulting)	NO (-63.3%)	NO
Consulting_(NCM_Consulting)	N/A	N/A
Consulting_(NCM_Consulting)	N/A	N/A
Consulting_(NCM_Consulting)	N/A	N/A
Consulting_(NCM_Consulting)	NO (-81.1%)	NO
Consulting_(NCM_Consulting)	NO (-54.8%)	NO
Consulting_(NCM_Consulting)	NO (-64.6%)	NO
Consulting_(NCM_Consulting)	NO (-91.2%)	NO
Consulting_(NCM_Consulting)	NO (-81.1%)	NO
Consulting_(NCM_Consulting)	NO (-64.3%)	NO
Consulting_(NCM_Consulting)	NO (-63.5%)	NO
Consulting_(NCM_Consulting)	NO (-81.1%)	NO
Dental_(NCM_A&E_Consulting)	N/A	N/A
Dining_(NCM_Eating/Drinking)	NO (-37.7%)	NO
Dining_(NCM_Eating/Drinking)	NO (-62.4%)	NO
Dining_(NCM_Eating/Drinking)	NO (-40.9%)	NO
Dining_(NCM_Eating/Drinking)	NO (-64.3%)	NO
Dining_(NCM_Eating/Drinking)	NO (-79.6%)	NO
Dining_(NCM_Eating/Drinking)	NO (-61.5%)	NO
Dining_(NCM_Eating/Drinking)	N/A	N/A
Dining_(NCM_Eating/Drinking)	NO (-63.2%)	NO
Examination_(NCM_Consulting)	NO (-75%)	NO
Examination_(NCM_Consulting)	NO (-75.2%)	NO
Examination_(NCM_Consulting)	NO (-76%)	NO
Examination_(NCM_Consulting)	NO (-74.6%)	NO
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.3%)	NO
Examination_(NCM_Consulting)	NO (-33.4%)	NO
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.2%)	NO
Examination_(NCM_Consulting)	NO (-64.3%)	NO
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	NO (-45.1%)	NO
Examination_(NCM_Consulting)	NO (-55.8%)	NO
Examination_(NCM_Consulting)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	NO (-75.3%)	NO
Examination_(NCM_Consulting)	NO (-75.7%)	NO
Injection_(NCM_A&E_Consulting)	N/A	N/A
Injection_(NCM_A&E_Consulting)	N/A	N/A
Injection_(NCM_A&E_Consulting)	N/A	N/A
Interview_(NCM_Offices)	NO (-85.8%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-70%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-85.3%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-71.8%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-58%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-72.4%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	NO (-33.3%)	NO
Laboratory_(NCM_Laboratory)	N/A	N/A
Laboratory_(NCM_Laboratory)	N/A	N/A
Laboratory_(NCM_Laboratory)	NO (-35.5%)	NO
Laboratory_(NCM_Laboratory)	N/A	N/A
Laboratory_(NCM_Laboratory)	NO (-33.9%)	NO
Laboratory_(NCM_Laboratory)	NO (-49.6%)	NO
Laboratory_(NCM_Laboratory)	NO (-55.5%)	NO
Laboratory_(NCM_Laboratory)	N/A	N/A
Library_(NCM_Classroom)	N/A	N/A
Library_(NCM_Classroom)	N/A	N/A
Library_(NCM_Classroom)	NO (-85.5%)	NO
Lounge_(NCM_Waiting)	NO (-60.7%)	NO
Lounge_(NCM_Waiting)	NO (-77.2%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	NO (-78.9%)	NO
Lounge_(NCM_Waiting)	NO (-56.1%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	NO (-60.7%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	NO (-75.9%)	NO
Lounge_(NCM_Waiting)	NO (-39.7%)	NO
Lounge_(NCM_Waiting)	NO (-75.9%)	NO
Lounge_(NCM_Waiting)	NO (-66.2%)	NO
Lounge_(NCM_Waiting)	NO (-54.6%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	NO (-38%)	NO
Meeting_(NCM_Office_Meeting)	NO (-68.3%)	NO
Meeting_(NCM_Office_Meeting)	NO (-60.2%)	NO
Meeting_(NCM_Office_Meeting)	NO (-53.7%)	NO
Meeting_(NCM_Office_Meeting)	NO (-33.1%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Office_(NCM_Office)	NO (-18.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-53.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-69.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-52.8%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-71.2%)	NO
Office_(NCM_Office)	NO (-85.6%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-81.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-83.7%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-81.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-54%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-46.5%)	NO
Office_(NCM_Office)	NO (-78.5%)	NO
Office_(NCM_Office)	NO (-67.3%)	NO
Office_(NCM_Office)	NO (-61.5%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-77%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-73.1%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-62.1%)	NO
Office_(NCM_Office)	NO (-26.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-11.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-50.2%)	NO
Office_(NCM_Office)	NO (-34.2%)	NO
Office_(NCM_Office)	NO (-33%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-32.6%)	NO
Office_(NCM_Office)	NO (-49.6%)	NO
Office_(NCM_Office)	NO (-80.9%)	NO
Office_(NCM_Office)	NO (-47.8%)	NO
Office_(NCM_Office)	NO (-21.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-61.3%)	NO
Office_(NCM_Office)	NO (-56.6%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-65.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-68.8%)	NO
Office_(NCM_Office)	NO (-73.6%)	NO
Office_(NCM_Office)	NO (-90.8%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-52.3%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-78.1%)	NO
Office_(NCM_Office)	NO (-56.8%)	NO
Office_(NCM_Office)	NO (-79.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-37.1%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-51.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-56.8%)	NO
Office_(NCM_Office)	NO (-31.9%)	NO
Office_(NCM_Office)	NO (-68.6%)	NO
Office_(NCM_Office)	NO (-41.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-76.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-69.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Pantry_(NCM_Cupboard)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-70.6%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-71%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-69.7%)	NO
Recovery_(NCM_Wards_Patients)	NO (-71.7%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-70.6%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Recovery_(NCM_Wards_Patients)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	NO (-42.8%)	NO
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	NO (-25.7%)	NO
Seminar_(NCM_Lecturetheatre)	NO (-14.3%)	NO
Seminar_(NCM_Lecturetheatre)	NO (-24.4%)	NO
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-84.6%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-87.3%)	NO
Staff_(NCM_Meeting)	NO (-27.5%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-62.3%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-36.5%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-67.5%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-65.3%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-60.1%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-52.2%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Treatment_(NCM_Treatment)	NO (-74.8%)	NO
Treatment_(NCM_Treatment)	NO (-74.6%)	NO
Treatment_(NCM_Treatment)	NO (-36.8%)	NO
Treatment_(NCM_Treatment)	NO (-30.7%)	NO
Treatment_(NCM_Treatment)	NO (-57.5%)	NO
Treatment_(NCM_Treatment)	NO (-56.8%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-33.9%)	NO
Treatment_(NCM_Treatment)	NO (-30.4%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-68.8%)	NO
Treatment_(NCM_Treatment)	NO (-68.7%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-67.9%)	NO
Treatment_(NCM_Treatment)	NO (-79.3%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-76.3%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-26.8%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-28.7%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-33.3%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-68.2%)	NO
Waiting_(NCM_Waiting)	NO (-32.8%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-69.3%)	NO
Waiting_(NCM_Waiting)	NO (-69%)	NO
Waiting_(NCM_Waiting)	NO (-63.5%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-57.1%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-34%)	NO
Waiting_(NCM_Waiting)	NO (-42%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-67.1%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-65.1%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-52.2%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-74.1%)	NO
Ward Areas_(NCM_Wards_Patients)	NO (-98.7%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-78.9%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-70.3%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Ward Areas_(NCM_Wards_Patients)	NO (-20.2%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-63.6%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-58.1%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A

Criterion 4: The performance of the building, as built, should be consistent with the BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	38712	38712
External area [m²]	37745.3	37745.3
Weather	EDI	EDI
Infiltration [m³/hm²@ 50Pa]	5	5
Average conductance [W/K]	9691.12	13294.9
Average U-value [W/m²K]	0.26	0.35
Alpha value* [%]	12.81	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
100	**C2 Residential Inst.: Hospitals and Care Homes**
	C2 Residential Inst.: Residential schools
	C2 Residential Inst.: Universities and colleges
	C2A Secure Residential Inst.
	Residential spaces
	D1 Non-residential Inst.: Community/Day Centre
	D1 Non-residential Inst.: Libraries, Museums, and Galleries
	D1 Non-residential Inst.: Education
	D1 Non-residential Inst.: Primary Health Care Building
	D1 Non-residential Inst.: Crown and County Courts
	D2 General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	51.15	34.97
Cooling	5.91	2.64
Auxiliary	17.99	14.34
Lighting	33.43	25.53
Hot water	71.61	33.52
Equipment*	116.18	116.18
TOTAL**	**129.25**	**110.99**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	1.68	0
Wind turbines	0	0
CHP generators	50.85	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	140.02	141.89
Primary energy* [kWh/m²]	144.16	193.97
Total emissions [kg/m²]	26.2	35.5

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	30	0	0.6	0	20.8	0.91	0	0.97	0
	Notional	37.6	0	12.5	0	13.1	0.87	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	180.3	0	2.6	0	1.6	0.91	0	0.97	0
	Notional	228.8	0	76.2	0	1.6	0.83	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	123.8	0	2.2	0	12.7	0.91	0	0.97	0
	Notional	159.9	0	53.3	0	12.8	0.83	0	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	9.4	250.1	0.4	21	26.2	0.87	3.23	0.97	4.09
	Notional	28	168.7	9.3	12.1	34.3	0.83	3.79	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	1.9	655.1	0.2	68	99.7	0.7	2.61	0.97	4.09
	Notional	4.3	417.4	1.4	29.8	87.8	0.83	3.79	----	----

Key to terms

Heat dem [MJ/m2] = Heating energy demand
Cool dem [MJ/m2] = Cooling energy demand
Heat con [kWh/m2] = Heating energy consumption
Cool con [kWh/m2] = Cooling energy consumption
Aux con [kWh/m2] = Auxiliary energy consumption
Heat SSEFF = Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER = Cooling system seasonal energy efficiency ratio
Heat gen SSEFF = Heating generator seasonal efficiency
Cool gen SSEER = Cooling generator seasonal energy efficiency ratio
ST = System type
HS = Heat source
HFT = Heating fuel type
CFT = Cooling fuel type

Key Features

The BCO can give particular attention to items with specifications that are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.2	BDRM0000:Surf[3]
Floor	0.2	0.2	BDRM0000:Surf[0]
Roof	0.15	0.15	FLTB0001:Surf[0]
Windows, roof windows, and rooflights	1.5	1.6	BDRM0000:Surf[1]
Personnel doors	1.5	2.19	CRCL0309:Surf[1]
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

4.7 Future Actions

The following details the future action for the development of the Energy Model during the detail design and construction stage:

- Update the geometry
- Update design information
- Simulate for building regulation compliance, check BREEAM Ene01
- Simulate the operational energy model

4.8 CHP Utilisation Strategy

4.8.1 Introduction

This document describes the operational strategy for the new CHP unit installed as part of the overall energy producing plant at the new facility. The strategy being to arrange the plant integration into the Energy supplies of the building to achieve maximum possible usage and hence effectiveness of the CHP unit.

4.8.2 Current Plant Proposals

The CHP unit is designed to be the lead heat provider with boilerplant utilised as second stream provider where additional heat over CHP's max contribution is insufficient to meet the load or where the CHP is unavailable due to servicing etc.

The CHP plant has been selected to not only provide the necessary performance criteria to allow the design to meet Scottish Building Regulations Section 6 requirements. It has also been selected on the basis of ensuring optimum overall capacity and usage, the issue being that the currently available CHP units have a turndown aspect in terms of capacity output of 50%. The selection of this unit, which has a heat maximum capacity of 654kW and hence for the purpose of this study a turndown to 327kW reflects this sizing strategy.

To put this into perspective, the following demonstrates the relevant plant sizing compared to the CHP output.

1) Current operational boilerplant capacity 6400kW, 327kW CHP relates to 5.1% of capacity.
2) Current predicted maximum heating load for boilers 5600kW, 327kW CHP related to 5.8% of maximum estimated boiler load.

4.8.3 Current Heat Loads

The CHP heating output is taken direct to the main heating header and is thus available to contribute to all of the heating loads which are:-

- Heating circuits feeding room heat emitters
- Heating circuits serving air handling units
- Heating circuits serving domestic hot Water primary heating

4.8.4 Predicted System Loads

In order to review the estimated usage we have received the likely load patterns of the various components of the main heating loads, which are:-

1) Main Heating,

Maximum load (excluding air loading)1550kW at external design temp of -5.9°C. Thus with a room temperature of say average 21°C we should still have 327kW of heat input required until external temperature is 19°C and above.

2) Domestic Hot Water Load,

The hot water system capacity equals to a 1000kW input which a 327kW input constitutes 30% of the required load. However the Hot Water is user driven and as such we are suggesting that this load in real terms will only be available between by 0600 and 2000 hours.

3) Ventilation Load,

Given that we require to pre-heat the supply air being provided throughout the hospital, we have estimated that excluding Theatres the remaining air volume would increase by some 2.3°C if the entire 327kW was applied to the heating load alone. Given that the off coil temperature to the various systems should be around 20°C we have therefore reviewed the weather data for the period outside of the provided Hot Water demand cycle i.e. between 0600 and 2200 hours.

4) The pipework distribution system will have standing losses which would represent circa 5% over the whole system, this equates to 15kw of the 327Kw available.

We have then reviewed the number of hours when we could expect the external temperature to exceed 19°C. (See Appendix 1)

The results are:-

Hours exceeding 19°C	26 hours/ annum
Time period	May to August

Following discussions with a CHP manufacturer, it has been indicated that the CHP will require approximately 4.5 weeks duration of maintenance over the course of a year. With careful planning of the maintenance schedule the main servicing could occur during peak periods when external ambient is likely to exceed 19°C. This strategy would then ensure that the CHP is continuously available when the ambient temperatures are below 19°C.

4.8.5 Conclusion

From these studies we would conclude that the current system provides a robust and practical plant sizing strategy. A larger unit would in all probability given the 50% turndown ratio have a much lower usage factor. Likewise, a small unit wouldn't meet the Scottish Building Regulations Section 6 requirements and multiple smaller units could only offer a reduction on what is a very small annual percentage usage figure but with increased maintenance costs and potentially longer unavailability times due to regular ongoing maintenance issues.

In effect the system is utilising the air handling units as air cooled heat dumps but in an energy effective way as we are recycling this energy.

4.8.6 Buffer Vessel

Notwithstanding all of the above the system shall be configured to include two buffer vessels.

The buffer vessels shall comprise two thermal stores (2 x 15,000 litres) together with all controls, sensors and pumps to allow the vessels to operate in conjunction with the heating system and ensure that the CHP is the lead heat source and will limit the risk of CHP shutdown.

An emergency engine cooling unit shall also be provided in conjunction with the buffer vessels.

4.8.7 Appendix 1 – Edinburgh Weather – Hours Between 19ºC (1900h-0600h)

RHSC - Edinburgh Weather File Time when Temperature > 19degs between 1900h-0600h			
DATE	**TIME**	**TEMPERATURE**	**Total Hours**
Mon, 02/May	19:00	19.1	26
Mon, 28/May	19:00	20.7	
	20:00	20	
Wed, 30 May	19:00	20.4	
	20:00	20.9	
Sun, 24 June	19:00	21	
	20:00	20.4	
Mon, 25 June	19:00	22	
	20:00	20.6	
	21:00	19.1	
Tues, 26 June	20:00	19.4	
Mon, 09 July	19:00	19.1	
Thurs, 19 July	19:00	21.4	
	20:00	19.9	
	21:00	19.7	
Fri, 20 July	19:00	24.9	
	20:00	23.6	
	21:00	21.8	
Sat, 21 July	19:00	19.2	
Sun, 22 Jul	19:00	19.4	
	20:00	18.5	
Wed, 25 Jul	19:00	19.5	
	20:00	19	
Mon, 06 Aug	19:00	19.6	
	20:00	19.2	
Mon, 27 Aug	19:00	19.3	

5. ELECTRONIC FILE ATTACHMENTS

Due to the nature and size of these documents they require to be transmitted in electronic format, these are:

5.1 RHSC DCN IHS Lothian Energy Calculations – Financial Close - IHSL-XX-XX-DC-4_10_1

5.2 RHSC DCN IHS Lothian Energy Model Input Data – Financial Close - IHSL-XX-XX-DC-4_10_2

5.3 RHSC DCN IHS Lothian Operational Energy Model – Financial Close - IHSL-XX-XX-DC-4_10_3

ID	Room Type	Building Regulations		Room Conditions				System					Internal Gains											Air Exchanges		
													People			Lighting						Equipment					
		NCM Building Type	NCM Activity	Heating Set Point (°C)	Heating Profile	Cooling Set Point (°C)	Cooling Profile	Type	Heating Seasonal Efficiency	Cooling Seasonal Efficiency	Specific Fan Power (W/L/s)	Heat Recovery	Occupancy Density	Sensible Gain (W)	Latent Gain (W)	Occupancy Profile	Lighting Design Lux Level	Lighting Energy Use (W/m²)	Lighting Energy Use (W/m²/100lux)	Lighting Profile	Lighting Control	Electrical Load (W/m²)	Sensible Gain (W/m2)	Eqipment Profile	Mechanical Ventilation	Natural Ventilation	Infiltration (ACH)
001	Atrium (Public Circulation)	C2: Hospital (Hospital)	NCM Hosp: Public circulation areas	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	500	12.00	2.40	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	50	50	6-9 50% 9-18 100% 18-24 -25%	12 L/s.m²	Yes	0.125
002	Anaesthetic	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	130	255	6-9 50% 9-18 100% 18-24 -5%	500	20.90	4.18	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	15 ACH	No	0.125
003	Bays	C2: Hospital (Hospital)	NCM Hosp: Circulation area	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	0	n/a	n/a	n/a	100	8.00	8.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
004	Bedroom	C2: Hospital (Hospital)	NCM Hosp: Bedroom	21	On continuously	25	On continuously	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1.58p/10m²	70	60	100%	177	3.06	1.73	6-9 50% 9-18 100% 18-24 -25%	Manual	42	42	6-9 50% 9-18 100% 18-24 -25%	4 ACH	Mixed Mode	0.125
005	Changing Facilities	C2: Hospital (Hospital)	NCM Hosp: Changing facilities	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	n/a	n/a	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	2.5p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	100	2.75	2.75	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	15	15	6-9 50% 9-18 100% 18-24 -25%	5 ACH	No	0.125
006	Circulation	C2: Hospital (Hospital)	NCM Hosp: Circulation area	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	200	6.00	3.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	2 ACH	Yes	0.125
007	Clinic	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Consulting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	8.10	2.70	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
008	Consulting	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Consulting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	8.61	2.87	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
009	DSR	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	100	6.24	6.24	0-24 - 40%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	10 ACH	No	0.125
010	Dental	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	500	8.00	1.60	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	10 ACH	No	0.125
011	Dining	C2: Hospital (Hospital)	NCM Hosp: Eating/drinking area	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	6p/10m²	70	60	6-9 50% 9-18 50% 18-24 -5%	300	5.67	1.89	6-9 50% 9-18 50% 18-24 -5%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 50% 18-24 -5%	6 ACH	No	0.125
012	Ensuites	C2: Hospital (Hospital)	NCM Hosp: Bathroom	21	On continuously	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	2p/10m²	70	60	6-9 50% 9-18 100% 18-24 -5%	200	8.34	4.17	0-24 - 50%	Auto On/Off (PIR)	0	0	n/a	10 ACH	No	0.125
013	Equipment	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	200	8.00	4.00	0-24 - 40%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
014	Examination	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Consulting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
015	Freezer (room with freezers)	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	On continuously	25	On continuously	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	300	7.92	2.64	0-24 - 40%	Manual	50	50	24 hour	6 ACH	No	0.125
016	IPS	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: IT)	n/a	n/a	n/a	n/a	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	0	n/a	n/a	n/a	200	8.00	4.00	0-24 - 40%	Auto On/Off (PIR)	50	50	6-9 100% 9-18 100% 18-24 -100%	3 ACH	No	0.125
017	IT	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: IT)	n/a	n/a	23	On continuously	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	0	n/a	n/a	n/a	300	7.92	2.64	0-24 - 50%	Auto On/Off (PIR)	300	300	6-9 100% 9-18 100% 18-24 -100%	2 ACH	No	0.125
018	Injection	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
019	Interview	C2: Hospital (Hospital)	NCM Hosp: Office	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	8.16	2.72	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
020	Kitchen	C2: Hospital (Hospital)	NCM Hosp: Food preparation area	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	170	255	6-9 60% 9-18 100% 18-24 -20%	500	12.60	2.52	6-9 60% 9-18 100% 18-24 -20%	Auto On/Off (PIR)	300	300	6-9 60% 9-18 100% 18-24 -20%	20 ACH	No	0.125
021	Laboratory	C2: Hospital (Hospital)	NCM Hosp: Laboratory	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	500	14.90	2.98	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	50	50	6-9 50% 9-18 100% 18-24 -25%	6 ACH	No	0.125
022	Laundry	C2: Hospital (Hospital)	NCM Hosp: Laundry	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	200	200	6-9 50% 9-18 100% 18-24 -25%	10 ACH	No	0.125
023	Library	C2: Hospital (Hospital)	NCM Hosp: Classroom	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	28	6-9 Off 9-18 18/28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	200	8.00	4.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -25%	7 ACH	No	0.125
024	Lobby	C2: Hospital (Hospital)	NCM Hosp: Public circulation areas	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	1p/15m²	70	60	6-9 100% 9-18 100% 18-24 -25%	200	5.92	2.96	6-9 100% 9-18 100% 18-24 -50%	Auto On/Off (PIR)	0	0	n/a	2 ACH	No	0.125
025	Lounge	C2: Hospital (Hospital)	NCM Hosp: Reception (Hospital: Waiting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/3m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 100% 18-24 -25%	7 ACH	No	0.125
026	Meeting	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Meeting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	6p/10m²	70	60	6-9 5% 9-18 50% 18-24 -25%	300	7.92	2.64	6-9 5% 9-18 50% 18-24 -25%	Auto On/Off (PIR)	15	15	6-9 5% 9-18 50% 18-24 -25%	4 ACH	No	0.125
027	Nappy Change	C2: Hospital (Hospital)	NCM Hosp: Toilet	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	2p/10m²	70	60	6-9 100% 9-18 50% 18-24 -25%	200	8.00	4.00	6-9 100% 9-18 50% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 50% 18-24 -25%	10 ACH	No	0.125
028	Office	C2: Hospital (Hospital)	NCM Hosp: Wards (Offices)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	8.37	2.79	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	4 ACH	No	0.125
029	Operating	C2: Hospital (Hospital)	NCM Hosp: Operating theatre	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	170	255	6-9 50% 9-18 100% 18-24 -5%	500	26.60	5.32	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	25 ACH	No	0.125
030	Pantry	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Tea)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	1.25p/10m²	70	60	6-9 50% 9-18 100% 18-24 -20%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -20%	Auto On/Off (PIR)	100	100	6-9 50% 9-18 100% 18-24 -20%	7 ACH	No	0.125
031	Pharmacy	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	2p/10m²	70	60	6-9 50% 9-18 100% 18-24 -5%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -5%	Auto On/Off (PIR)	50	50	6-9 50% 9-18 100% 18-24 -5%	6 ACH	No	0.125
032	Photocopy	C2: Hospital (Hospital)	NCM Hosp: Cupboard	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	50	50	6-9 100% 9-18 100% 18-24 -25%	4 ACH	No	0.125
033	Plant	C2: Hospital (Hospital)	NCM Hosp: Light plant room	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	300	6.39	2.13	0-24 - 40%	Auto On/Off (PIR)	300	300	6-9 100% 9-18 100% 18-24 -100%	2 ACH	No	0.125
034	Preparation	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	170	255	6-9 50% 9-18 100% 18-24 -5%	500	16.85	3.37	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	25 ACH	No	0.125
035	Reception	C2: Hospital (Hospital)	NCM Hosp: Reception	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	6.96	2.32	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	3 ACH	No	0.125
036	Reporting	C2: Hospital (Hospital)	NCM Hosp: Office	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	4 ACH	No	0.125
037	Recovery	C2: Hospital (Hospital)	NCM Hosp: Wards (Patient)	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	500	11.30	2.26	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	15 ACH	No	0.125
038	Seminar	C2: Hospital (Hospital)	NCM Hosp: Hall/lecture theatre/assembly area	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	7p/10m²	70	60	6-9 50% 9-18 100% 18-24 -5%	300	7.23	2.41	6-9 50% 9-18 100% 18-24 -5%	Auto On/Off (PIR)	15	15	6-9 50% 9-18 100% 18-24 -5%	4 ACH	No	0.125
039	Shop	C2: Hospital (Hospital)	NCM Hosp: Public circulation areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	10p/10m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -0%	Manual	45	45	6-9 50% 9-18 100% 18-24 -0%	3 ACH	No	0.125
040	Scrub Up	C2: Hospital (Hospital)	NCM Hosp: Operating theatre	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	170	255	6-9 50% 9-18 100% 18-24 -5%	500	12.00	2.40	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	25 ACH	No	0.125
041	Shower	C2: Hospital (Hospital)	NCM Hosp: Bathroom	22	On continuously	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	2.5p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	100	2.22	2.22	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	15	15	6-9 50% 9-18 100% 18-24 -25%	5 ACH	No	0.125
042	Staff	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Meeting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/3m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	8.46	2.82	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 100% 18-24 -25%	7 ACH	No	0.125

043	Store	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	200	3.64	1.82	0-24 - 40%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
044	Toilets	C2: Hospital (Hospital)	NCM Hosp: Toilet	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	1p/10m^2	70	60	6-9 50% 9-18 50% 18-24 -25%	200	6.40	3.20	6-9 50% 9-18 50% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	10 ACH	No	0.125
045	Trays	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	200	8.00	4.00	0-24 - 40%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
046	Treatment	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1p/2m^2	70	60	6-9 50% 9-18 100% 18-24 -0%	300	10.02	3.34	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	10 ACH	No	0.125
047	Utility	C2: Hospital (Hospital)	NCM Hosp: Cupboard	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	2p/10m^2	70	60	6-9 100% 9-18 100% 18-24 -25%	150	5.84	3.89	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 100% 18-24 -25%	6 ACH	No	0.125
048	Waiting	C2: Hospital (Hospital)	NCM Hosp: Reception (Hospital: Waiting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m^2	70	60	6-9 50% 9-18 100% 18-24 -25%	300	12.00	4.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	5 ACH	Yes	0.125
049	Ward Areas	C2: Hospital (Hospital)	NCM Hosp: Wards (Patient)	21	On continuously	25	On continuously	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1.58p/10m^2	70	60	100%	100	2.87	2.87	6-9 50% 9-18 100% 18-24 -25%	Manual	42	42	6-9 50% 9-18 100% 18-24 -25%	4 ACH	Mixed Mode	0.125
050	Workshop	C2: Hospital (Hospital)	NCM Hosp: Industrial process area	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1.58p/10m^2	70	60	100%	100	8.00	8.00	6-9 50% 9-18 100% 18-24 -25%	Manual	50	50	6-9 50% 9-18 100% 18-24 -25%	5 ACH	No	0.125
051	X-ray/Ultrasound/Gamma/MRI/ICT	C2: Hospital (Hospital)	NCM Hosp: Diagnostic Imaging	21	6-9 18 oC 9-18 21oC 18-24 18 oC	25	6-9 Off 9-18 25oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.25p/10m^2	70	60	6-9 50% 9-18 100% 18-24 -5%	500	11.85	2.37	6-9 50% 9-18 100% 18-24 -5%	Auto On/Off (PIR)	100	100	6-9 50% 9-18 100% 18-24 -5%	8 ACH	No	0.125

	System	Heating Seasonal Efficiency	Cooling Seasonal Efficiency	Specific Fan Power (W/L/s)	Heat Recovery
Atrium (Public Circulation)	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
Bedroom	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Changing Facilities	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Clinic	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Consulting	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Dental	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Dining	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Examination	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
IPS	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
IT	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Injection	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Kitchen	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Laboratory	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Laundry	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Library	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Lounge	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Office	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Pharmacy	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Photocopy	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Reception	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Reporting	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Recovery	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Staff	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Utility	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Waiting	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Ward Areas	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Workshop	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Bays	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
Circulation	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
Lobby	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
DSR	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Ensuites	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Equipment	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Freezer (room with freezers)	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Nappy Change	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Pantry	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Shower	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Store	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Toilets	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Trays	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Anaesthetic	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Operating	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Preparation	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Scrub Up	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Treatment	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
X-ray/Ultrasound/Gamma/MRI/ICT	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60

Interview	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Meeting	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Seminar	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Shop	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Plant	n/a	n/a	n/a	n/a	n/a

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

No	Thermal Template	NCM Activity
001	001_Atrium_(Public_Circulation)	NCM Hosp: Public circulation areas
002	002_Anaesthetic	NCM Hosp: A&E consulting/treatment/work areas
003	003_Bays	NCM Hosp: Circulation area
004	004_Bedroom	NCM Hosp: Bedroom
005	005_Changing_Facilities	NCM Hosp: Changing facilities
006	006_Circulation	NCM Hosp: Circulation area
007	007_Clinic	NCM Hosp: Office (Hospital: Consulting)
008	008_Consulting	NCM Hosp: Office (Hospital: Consulting)
009	010_DSR	NCM Hosp: Cupboard
010	011_Dental	NCM Hosp: A&E consulting/treatment/work areas
011	012_Dining	NCM Hosp: Eating/drinking area
012	013_Ensuites	NCM Hosp: Bathroom
013	014_Equipment	NCM Hosp: Cupboard
014	015_Examination	NCM Hosp: Office (Hospital: Consulting)
015	016_Freezer	NCM Hosp: Cupboard
016	017_IPS	NCM Hosp: Office (Hospital: IT)
017	018_IT	NCM Hosp: Office (Hospital: IT)
018	019_Injection	NCM Hosp: A&E consulting/treatment/work areas
019	020_Interview	NCM Hosp: Office
020	021_Kitchen	NCM Hosp: Food preparation area
021	022_Laboratory	NCM Hosp: Laboratory
022	023_Laundry	NCM Hosp: Laundry
023	024_Library	NCM Hosp: Classroom
024	025_Lobby	NCM Hosp: Public circulation areas
025	026_Lounge	NCM Hosp: Reception (Hospital: Waiting)
026	027_Meeting	NCM Hosp: Office (Hospital: Meeting)
027	028_Nappy_Change	NCM Hosp: Toilet
028	029_Office	NCM Hosp: Wards (Offices)
029	030_Operating	NCM Hosp: Operating theatre
030	031_Pantry	NCM Hosp: Office (Hospital: Tea)
031	032_Pharmacy	NCM Hosp: A&E consulting/treatment/work areas
032	033_Photocopy	NCM Hosp: Cupboard
033	034_Plant	NCM Hosp: Light plant room
034	035_Preparation	NCM Hosp: A&E consulting/treatment/work areas
035	036_Reception	NCM Hosp: Reception
036	037_Reporting	NCM Hosp: Office
037	038_Recovery	NCM Hosp: Wards (Patient)
038	040_Seminar	NCM Hosp: Hall/lecture theatre/assembly area
039	041_Shop	NCM Hosp: Public circulation areas
040	042_Scrub-up	NCM Hosp: Operating theatre
041	043_Shower	NCM Hosp: Bathroom
042	044_Staff	NCM Hosp: Office (Hospital: Meeting)
043	045_Store	NCM Hosp: Cupboard
044	046_Toilets	NCM Hosp: Toilet
045	047_Trays	NCM Hosp: Cupboard
046	048_Treatment	NCM Hosp: A&E consulting/treatment/work areas
047	049_Utility	NCM Hosp: Cupboard
048	050_Waiting	NCM Hosp: Reception (Hospital: Waiting)
049	051_Ward_Areas	NCM Hosp: Wards (Patient)
050	052_Workshop	NCM Hosp: Industrial process area
051	053_X-ray/Ultrasound/Gamma/MRI/ICT	NCM Hosp: Diagnostic Imaging

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Photovoltaic Panels	
Area (m2)	800
Type	Polycrystalline
Nominal Efficiency (%)	15
Nominal Cell Temperature (oC)	45
Temperature Coefficient	0.004
Electrical Conversion Efficiency (%)	95
Inclination Angle (deg)	30
Angle from North (deg)	180.0 (South)

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Combined Heat and Power	
Fuel	**Natural Gas**
Performance Rated Output (%)	100
Heat Output (kW)	654
Thermal Efficiency (%)	44
Electrical Efficiency (%)	40
Performance Minimum Output (%)	50
Thermal Efficiency (%)	48
Electrical Efficiency (%)	36.5
Profile	On Continuously

Allow maintenance downtime	1 day per 6 months

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Building Element	**U-value**	
External Wall	0.20	(W/m2K)
Ground Floor	0.20	(W/m2K)
Roof	0.15	(W/m2K)
Window	1.60	(W/m2K)
Rooflight	2.00	(W/m2K)

G-value Window	North 0.64
G-value Window	West/South/East 0.50 (maximum)
Window Daylight Transmission	0.76 (minimum)

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

External Lighting Load estimated to be 20,000W

Date	Time	Solar altitude (deg.) EdinburghTRY05.fwt EdinburghTRY05.fwt		External Lighting (W)		Date	Time	Solar altitude (deg.) EdinburghDSY05.fwt EdinburghDSY05.fwt		External Lighting (W)	
Mon, 01/Jan	00:30	0	0	20000	0	Mon, 01/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.5	1	20000	20000		11:30	10.5	1	20000	20000
	12:30	11.1	1	20000	20000		12:30	11.1	1	20000	20000
	13:30	9.6	1	20000	20000		13:30	9.6	1	20000	20000
	14:30	6.2	1	20000	20000		14:30	6.2	1	20000	20000
	15:30	1.2	1	20000	20000		15:30	1.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 02/Jan	00:30	0	0	20000	0	Tue, 02/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.6	1	20000	20000		11:30	10.6	1	20000	20000
	12:30	11.2	1	20000	20000		12:30	11.2	1	20000	20000
	13:30	9.7	1	20000	20000		13:30	9.7	1	20000	20000
	14:30	6.4	1	20000	20000		14:30	6.4	1	20000	20000
	15:30	1.3	1	20000	20000		15:30	1.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 03/Jan	00:30	0	0	20000	0	Wed, 03/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.7	1	20000	20000		09:30	3.7	1	20000	20000
	10:30	8.1	1	20000	20000		10:30	8.1	1	20000	20000
	11:30	10.7	1	20000	20000		11:30	10.7	1	20000	20000
	12:30	11.3	1	20000	20000		12:30	11.3	1	20000	20000
	13:30	9.8	1	20000	20000		13:30	9.8	1	20000	20000
	14:30	6.5	1	20000	20000		14:30	6.5	1	20000	20000
	15:30	1.4	1	20000	20000		15:30	1.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 04/Jan	00:30	0	0	20000	0	Thu, 04/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.7	1	20000	20000		09:30	3.7	1	20000	20000
	10:30	8.1	1	20000	20000		10:30	8.1	1	20000	20000
	11:30	10.8	1	20000	20000		11:30	10.8	1	20000	20000
	12:30	11.4	1	20000	20000		12:30	11.4	1	20000	20000
	13:30	9.9	1	20000	20000		13:30	9.9	1	20000	20000
	14:30	6.6	1	20000	20000		14:30	6.6	1	20000	20000
	15:30	1.6	1	20000	20000		15:30	1.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 05/Jan	00:30	0	0	20000	0	Fri, 05/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	8.2	1	20000	20000		10:30	8.2	1	20000	20000
	11:30	10.8	1	20000	20000		11:30	10.8	1	20000	20000
	12:30	11.5	1	20000	20000		12:30	11.5	1	20000	20000
	13:30	10.1	1	20000	20000		13:30	10.1	1	20000	20000
	14:30	6.7	1	20000	20000		14:30	6.7	1	20000	20000
	15:30	1.7	1	20000	20000		15:30	1.7	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 06/Jan	00:30	0	0	20000	0	Sat, 06/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0

	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	8.3	1	20000	20000		10:30	8.3	1	20000	20000
	11:30	10.9	1	20000	20000		11:30	10.9	1	20000	20000
	12:30	11.6	1	20000	20000		12:30	11.6	1	20000	20000
	13:30	10.2	1	20000	20000		13:30	10.2	1	20000	20000
	14:30	6.9	1	20000	20000		14:30	6.9	1	20000	20000
	15:30	1.8	1	20000	20000		15:30	1.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 07/Jan	00:30	0	0	20000	0	Sun, 07/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.9	1	20000	20000		09:30	3.9	1	20000	20000
	10:30	8.4	1	20000	20000		10:30	8.4	1	20000	20000
	11:30	11	1	20000	20000		11:30	11	1	20000	20000
	12:30	11.7	1	20000	20000		12:30	11.7	1	20000	20000
	13:30	10.3	1	20000	20000		13:30	10.3	1	20000	20000
	14:30	7	1	20000	20000		14:30	7	1	20000	20000
	15:30	2	1	20000	20000		15:30	2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 08/Jan	00:30	0	0	20000	0	Mon, 08/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4	1	20000	20000		09:30	4	1	20000	20000
	10:30	8.5	1	20000	20000		10:30	8.5	1	20000	20000
	11:30	11.2	1	20000	20000		11:30	11.2	1	20000	20000
	12:30	11.8	1	20000	20000		12:30	11.8	1	20000	20000
	13:30	10.5	1	20000	20000		13:30	10.5	1	20000	20000
	14:30	7.1	1	20000	20000		14:30	7.1	1	20000	20000
	15:30	2.1	1	20000	20000		15:30	2.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 09/Jan	00:30	0	0	20000	0	Tue, 09/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.1	1	20000	20000		09:30	4.1	1	20000	20000
	10:30	8.6	1	20000	20000		10:30	8.6	1	20000	20000
	11:30	11.3	1	20000	20000		11:30	11.3	1	20000	20000
	12:30	12	1	20000	20000		12:30	12	1	20000	20000
	13:30	10.6	1	20000	20000		13:30	10.6	1	20000	20000
	14:30	7.3	1	20000	20000		14:30	7.3	1	20000	20000
	15:30	2.3	1	20000	20000		15:30	2.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 10/Jan	00:30	0	0	20000	0	Wed, 10/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.2	1	20000	20000		09:30	4.2	1	20000	20000
	10:30	8.7	1	20000	20000		10:30	8.7	1	20000	20000
	11:30	11.4	1	20000	20000		11:30	11.4	1	20000	20000
	12:30	12.1	1	20000	20000		12:30	12.1	1	20000	20000
	13:30	10.8	1	20000	20000		13:30	10.8	1	20000	20000
	14:30	7.5	1	20000	20000		14:30	7.5	1	20000	20000
	15:30	2.5	1	20000	20000		15:30	2.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 11/Jan	00:30	0	0	20000	0	Thu, 11/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.3	1	20000	20000		09:30	4.3	1	20000	20000
	10:30	8.8	1	20000	20000		10:30	8.8	1	20000	20000
	11:30	11.5	1	20000	20000		11:30	11.5	1	20000	20000
	12:30	12.3	1	20000	20000		12:30	12.3	1	20000	20000
	13:30	10.9	1	20000	20000		13:30	10.9	1	20000	20000
	14:30	7.6	1	20000	20000		14:30	7.6	1	20000	20000
	15:30	2.6	1	20000	20000		15:30	2.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0

	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 12/Jan	00:30	0	0	20000	0	Fri, 12/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.4	1	20000	20000		09:30	4.4	1	20000	20000
	10:30	8.9	1	20000	20000		10:30	8.9	1	20000	20000
	11:30	11.7	1	20000	20000		11:30	11.7	1	20000	20000
	12:30	12.4	1	20000	20000		12:30	12.4	1	20000	20000
	13:30	11.1	1	20000	20000		13:30	11.1	1	20000	20000
	14:30	7.8	1	20000	20000		14:30	7.8	1	20000	20000
	15:30	2.8	1	20000	20000		15:30	2.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 13/Jan	00:30	0	0	20000	0	Sat, 13/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.5	1	20000	20000		09:30	4.5	1	20000	20000
	10:30	9.1	1	20000	20000		10:30	9.1	1	20000	20000
	11:30	11.8	1	20000	20000		11:30	11.8	1	20000	20000
	12:30	12.6	1	20000	20000		12:30	12.6	1	20000	20000
	13:30	11.3	1	20000	20000		13:30	11.3	1	20000	20000
	14:30	8	1	20000	20000		14:30	8	1	20000	20000
	15:30	3	1	20000	20000		15:30	3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 14/Jan	00:30	0	0	20000	0	Sun, 14/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.6	1	20000	20000		09:30	4.6	1	20000	20000
	10:30	9.2	1	20000	20000		10:30	9.2	1	20000	20000
	11:30	12	1	20000	20000		11:30	12	1	20000	20000
	12:30	12.8	1	20000	20000		12:30	12.8	1	20000	20000
	13:30	11.4	1	20000	20000		13:30	11.4	1	20000	20000
	14:30	8.2	1	20000	20000		14:30	8.2	1	20000	20000
	15:30	3.2	1	20000	20000		15:30	3.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 15/Jan	00:30	0	0	20000	0	Mon, 15/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.8	1	20000	20000		09:30	4.8	1	20000	20000
	10:30	9.3	1	20000	20000		10:30	9.3	1	20000	20000
	11:30	12.1	1	20000	20000		11:30	12.1	1	20000	20000
	12:30	12.9	1	20000	20000		12:30	12.9	1	20000	20000
	13:30	11.6	1	20000	20000		13:30	11.6	1	20000	20000
	14:30	8.4	1	20000	20000		14:30	8.4	1	20000	20000
	15:30	3.4	1	20000	20000		15:30	3.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 16/Jan	00:30	0	0	20000	0	Tue, 16/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.9	1	20000	20000		09:30	4.9	1	20000	20000
	10:30	9.5	1	20000	20000		10:30	9.5	1	20000	20000
	11:30	12.3	1	20000	20000		11:30	12.3	1	20000	20000
	12:30	13.1	1	20000	20000		12:30	13.1	1	20000	20000
	13:30	11.8	1	20000	20000		13:30	11.8	1	20000	20000
	14:30	8.5	1	20000	20000		14:30	8.5	1	20000	20000
	15:30	3.6	1	20000	20000		15:30	3.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 17/Jan	00:30	0	0	20000	0	Wed, 17/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5	1	20000	20000		09:30	5	1	20000	20000
	10:30	9.7	1	20000	20000		10:30	9.7	1	20000	20000
	11:30	12.5	1	20000	20000		11:30	12.5	1	20000	20000
	12:30	13.3	1	20000	20000		12:30	13.3	1	20000	20000
	13:30	12	1	20000	20000		13:30	12	1	20000	20000
	14:30	8.8	1	20000	20000		14:30	8.8	1	20000	20000
	15:30	3.8	1	20000	20000		15:30	3.8	1	20000	20000

	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 18/Jan	00:30	0	0	20000	0	Thu, 18/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.2	1	20000	20000		09:30	5.2	1	20000	20000
	10:30	9.8	1	20000	20000		10:30	9.8	1	20000	20000
	11:30	12.7	1	20000	20000		11:30	12.7	1	20000	20000
	12:30	13.5	1	20000	20000		12:30	13.5	1	20000	20000
	13:30	12.2	1	20000	20000		13:30	12.2	1	20000	20000
	14:30	9	1	20000	20000		14:30	9	1	20000	20000
	15:30	4	1	20000	20000		15:30	4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 19/Jan	00:30	0	0	20000	0	Fri, 19/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.3	1	20000	20000		09:30	5.3	1	20000	20000
	10:30	10	1	20000	20000		10:30	10	1	20000	20000
	11:30	12.9	1	20000	20000		11:30	12.9	1	20000	20000
	12:30	13.7	1	20000	20000		12:30	13.7	1	20000	20000
	13:30	12.4	1	20000	20000		13:30	12.4	1	20000	20000
	14:30	9.2	1	20000	20000		14:30	9.2	1	20000	20000
	15:30	4.2	1	20000	20000		15:30	4.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 20/Jan	00:30	0	0	20000	0	Sat, 20/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.5	1	20000	20000		09:30	5.5	1	20000	20000
	10:30	10.2	1	20000	20000		10:30	10.2	1	20000	20000
	11:30	13.1	1	20000	20000		11:30	13.1	1	20000	20000
	12:30	13.9	1	20000	20000		12:30	13.9	1	20000	20000
	13:30	12.7	1	20000	20000		13:30	12.7	1	20000	20000
	14:30	9.4	1	20000	20000		14:30	9.4	1	20000	20000
	15:30	4.4	1	20000	20000		15:30	4.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 21/Jan	00:30	0	0	20000	0	Sun, 21/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.7	1	20000	20000		09:30	5.7	1	20000	20000
	10:30	10.4	1	20000	20000		10:30	10.4	1	20000	20000
	11:30	13.3	1	20000	20000		11:30	13.3	1	20000	20000
	12:30	14.1	1	20000	20000		12:30	14.1	1	20000	20000
	13:30	12.9	1	20000	20000		13:30	12.9	1	20000	20000
	14:30	9.6	1	20000	20000		14:30	9.6	1	20000	20000
	15:30	4.6	1	20000	20000		15:30	4.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 22/Jan	00:30	0	0	20000	0	Mon, 22/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.9	1	20000	20000		09:30	5.9	1	20000	20000
	10:30	10.6	1	20000	20000		10:30	10.6	1	20000	20000
	11:30	13.5	1	20000	20000		11:30	13.5	1	20000	20000
	12:30	14.3	1	20000	20000		12:30	14.3	1	20000	20000
	13:30	13.1	1	20000	20000		13:30	13.1	1	20000	20000
	14:30	9.9	1	20000	20000		14:30	9.9	1	20000	20000
	15:30	4.9	1	20000	20000		15:30	4.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 23/Jan	00:30	0	0	20000	0	Tue, 23/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0

	09:30	6	1	20000	20000		09:30	6	1	20000	20000
	10:30	10.8	1	20000	20000		10:30	10.8	1	20000	20000
	11:30	13.7	1	20000	20000		11:30	13.7	1	20000	20000
	12:30	14.6	1	20000	20000		12:30	14.6	1	20000	20000
	13:30	13.3	1	20000	20000		13:30	13.3	1	20000	20000
	14:30	10.1	1	20000	20000		14:30	10.1	1	20000	20000
	15:30	5.1	1	20000	20000		15:30	5.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 24/Jan	00:30	0	0	20000	0	Wed, 24/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	6.2	1	20000	20000		09:30	6.2	1	20000	20000
	10:30	11	1	20000	20000		10:30	11	1	20000	20000
	11:30	13.9	1	20000	20000		11:30	13.9	1	20000	20000
	12:30	14.8	1	20000	20000		12:30	14.8	1	20000	20000
	13:30	13.6	1	20000	20000		13:30	13.6	1	20000	20000
	14:30	10.3	1	20000	20000		14:30	10.3	1	20000	20000
	15:30	5.3	1	20000	20000		15:30	5.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 25/Jan	00:30	0	0	20000	0	Thu, 25/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.2	1	20000	20000		08:30	0.2	1	20000	20000
	09:30	6.4	1	20000	20000		09:30	6.4	1	20000	20000
	10:30	11.2	1	20000	20000		10:30	11.2	1	20000	20000
	11:30	14.1	1	20000	20000		11:30	14.1	1	20000	20000
	12:30	15	1	20000	20000		12:30	15	1	20000	20000
	13:30	13.8	1	20000	20000		13:30	13.8	1	20000	20000
	14:30	10.6	1	20000	20000		14:30	10.6	1	20000	20000
	15:30	5.6	1	20000	20000		15:30	5.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 26/Jan	00:30	0	0	20000	0	Fri, 26/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.4	1	20000	20000		08:30	0.4	1	20000	20000
	09:30	6.6	1	20000	20000		09:30	6.6	1	20000	20000
	10:30	11.4	1	20000	20000		10:30	11.4	1	20000	20000
	11:30	14.4	1	20000	20000		11:30	14.4	1	20000	20000
	12:30	15.3	1	20000	20000		12:30	15.3	1	20000	20000
	13:30	14.1	1	20000	20000		13:30	14.1	1	20000	20000
	14:30	10.8	1	20000	20000		14:30	10.8	1	20000	20000
	15:30	5.8	1	20000	20000		15:30	5.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 27/Jan	00:30	0	0	20000	0	Sat, 27/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.6	1	20000	20000		08:30	0.6	1	20000	20000
	09:30	6.8	1	20000	20000		09:30	6.8	1	20000	20000
	10:30	11.6	1	20000	20000		10:30	11.6	1	20000	20000
	11:30	14.6	1	20000	20000		11:30	14.6	1	20000	20000
	12:30	15.5	1	20000	20000		12:30	15.5	1	20000	20000
	13:30	14.3	1	20000	20000		13:30	14.3	1	20000	20000
	14:30	11.1	1	20000	20000		14:30	11.1	1	20000	20000
	15:30	6.1	1	20000	20000		15:30	6.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 28/Jan	00:30	0	0	20000	0	Sun, 28/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.8	1	20000	20000		08:30	0.8	1	20000	20000
	09:30	7.1	1	20000	20000		09:30	7.1	1	20000	20000
	10:30	11.9	1	20000	20000		10:30	11.9	1	20000	20000
	11:30	14.9	1	20000	20000		11:30	14.9	1	20000	20000
	12:30	15.8	1	20000	20000		12:30	15.8	1	20000	20000
	13:30	14.6	1	20000	20000		13:30	14.6	1	20000	20000
	14:30	11.3	1	20000	20000		14:30	11.3	1	20000	20000
	15:30	6.3	1	20000	20000		15:30	6.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 29/Jan	00:30	0	0	20000	0	Mon, 29/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0

	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1	1	20000	20000		08:30	1	1	20000	20000
	09:30	7.3	1	20000	20000		09:30	7.3	1	20000	20000
	10:30	12.1	1	20000	20000		10:30	12.1	1	20000	20000
	11:30	15.1	1	20000	20000		11:30	15.1	1	20000	20000
	12:30	16.1	1	20000	20000		12:30	16.1	1	20000	20000
	13:30	14.9	1	20000	20000		13:30	14.9	1	20000	20000
	14:30	11.6	1	20000	20000		14:30	11.6	1	20000	20000
	15:30	6.6	1	20000	20000		15:30	6.6	1	20000	20000
	16:30	0.2	1	20000	20000		16:30	0.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 30/Jan	00:30	0	0	20000	0	Tue, 30/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.2	1	20000	20000		08:30	1.2	1	20000	20000
	09:30	7.5	1	20000	20000		09:30	7.5	1	20000	20000
	10:30	12.3	1	20000	20000		10:30	12.3	1	20000	20000
	11:30	15.4	1	20000	20000		11:30	15.4	1	20000	20000
	12:30	16.3	1	20000	20000		12:30	16.3	1	20000	20000
	13:30	15.1	1	20000	20000		13:30	15.1	1	20000	20000
	14:30	11.9	1	20000	20000		14:30	11.9	1	20000	20000
	15:30	6.9	1	20000	20000		15:30	6.9	1	20000	20000
	16:30	0.4	1	20000	20000		16:30	0.4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 31/Jan	00:30	0	0	20000	0	Wed, 31/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.5	1	20000	20000		08:30	1.5	1	20000	20000
	09:30	7.7	1	20000	20000		09:30	7.7	1	20000	20000
	10:30	12.6	1	20000	20000		10:30	12.6	1	20000	20000
	11:30	15.6	1	20000	20000		11:30	15.6	1	20000	20000
	12:30	16.6	1	20000	20000		12:30	16.6	1	20000	20000
	13:30	15.4	1	20000	20000		13:30	15.4	1	20000	20000
	14:30	12.2	1	20000	20000		14:30	12.2	1	20000	20000
	15:30	7.1	1	20000	20000		15:30	7.1	1	20000	20000
	16:30	0.7	1	20000	20000		16:30	0.7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 01/Feb	00:30	0	0	20000	0	Thu, 01/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.7	1	20000	20000		08:30	1.7	1	20000	20000
	09:30	8	1	20000	20000		09:30	8	1	20000	20000
	10:30	12.9	1	20000	20000		10:30	12.9	1	20000	20000
	11:30	15.9	1	20000	20000		11:30	15.9	1	20000	20000
	12:30	16.9	1	20000	20000		12:30	16.9	1	20000	20000
	13:30	15.7	1	20000	20000		13:30	15.7	1	20000	20000
	14:30	12.4	1	20000	20000		14:30	12.4	1	20000	20000
	15:30	7.4	1	20000	20000		15:30	7.4	1	20000	20000
	16:30	1	1	20000	20000		16:30	1	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 02/Feb	00:30	0	0	20000	0	Fri, 02/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.9	1	20000	20000		08:30	1.9	1	20000	20000
	09:30	8.2	1	20000	20000		09:30	8.2	1	20000	20000
	10:30	13.1	1	20000	20000		10:30	13.1	1	20000	20000
	11:30	16.2	1	20000	20000		11:30	16.2	1	20000	20000
	12:30	17.2	1	20000	20000		12:30	17.2	1	20000	20000
	13:30	16	1	20000	20000		13:30	16	1	20000	20000
	14:30	12.7	1	20000	20000		14:30	12.7	1	20000	20000
	15:30	7.7	1	20000	20000		15:30	7.7	1	20000	20000
	16:30	1.2	1	20000	20000		16:30	1.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 03/Feb	00:30	0	0	20000	0	Sat, 03/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.1	1	20000	20000		08:30	2.1	1	20000	20000
	09:30	8.5	1	20000	20000		09:30	8.5	1	20000	20000
	10:30	13.4	1	20000	20000		10:30	13.4	1	20000	20000
	11:30	16.5	1	20000	20000		11:30	16.5	1	20000	20000
	12:30	17.5	1	20000	20000		12:30	17.5	1	20000	20000
	13:30	16.3	1	20000	20000		13:30	16.3	1	20000	20000
	14:30	13	1	20000	20000		14:30	13	1	20000	20000
	15:30	7.9	1	20000	20000		15:30	7.9	1	20000	20000
	16:30	1.5	1	20000	20000		16:30	1.5	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0

	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 04/Feb	00:30	0	0	20000	0	Sun, 04/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.4	1	20000	20000		08:30	2.4	1	20000	20000
	09:30	8.7	1	20000	20000		09:30	8.7	1	20000	20000
	10:30	13.7	1	20000	20000		10:30	13.7	1	20000	20000
	11:30	16.8	1	20000	20000		11:30	16.8	1	20000	20000
	12:30	17.8	1	20000	20000		12:30	17.8	1	20000	20000
	13:30	16.6	1	20000	20000		13:30	16.6	1	20000	20000
	14:30	13.3	1	20000	20000		14:30	13.3	1	20000	20000
	15:30	8.2	1	20000	20000		15:30	8.2	1	20000	20000
	16:30	1.8	1	20000	20000		16:30	1.8	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 05/Feb	00:30	0	0	20000	0	Mon, 05/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.6	1	20000	20000		08:30	2.6	1	20000	20000
	09:30	9	1	20000	20000		09:30	9	1	20000	20000
	10:30	13.9	1	20000	20000		10:30	13.9	1	20000	20000
	11:30	17	1	20000	20000		11:30	17	1	20000	20000
	12:30	18.1	1	20000	20000		12:30	18.1	1	20000	20000
	13:30	16.9	1	20000	20000		13:30	16.9	1	20000	20000
	14:30	13.6	1	20000	20000		14:30	13.6	1	20000	20000
	15:30	8.5	1	20000	20000		15:30	8.5	1	20000	20000
	16:30	2	1	20000	20000		16:30	2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 06/Feb	00:30	0	0	20000	0	Tue, 06/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.9	1	20000	20000		08:30	2.9	1	20000	20000
	09:30	9.3	1	20000	20000		09:30	9.3	1	20000	20000
	10:30	14.2	1	20000	20000		10:30	14.2	1	20000	20000
	11:30	17.3	1	20000	20000		11:30	17.3	1	20000	20000
	12:30	18.4	1	20000	20000		12:30	18.4	1	20000	20000
	13:30	17.2	1	20000	20000		13:30	17.2	1	20000	20000
	14:30	13.9	1	20000	20000		14:30	13.9	1	20000	20000
	15:30	8.8	1	20000	20000		15:30	8.8	1	20000	20000
	16:30	2.3	1	20000	20000		16:30	2.3	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 07/Feb	00:30	0	0	20000	0	Wed, 07/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.1	1	20000	20000		08:30	3.1	1	20000	20000
	09:30	9.5	1	20000	20000		09:30	9.5	1	20000	20000
	10:30	14.5	1	20000	20000		10:30	14.5	1	20000	20000
	11:30	17.6	1	20000	20000		11:30	17.6	1	20000	20000
	12:30	18.7	1	20000	20000		12:30	18.7	1	20000	20000
	13:30	17.5	1	20000	20000		13:30	17.5	1	20000	20000
	14:30	14.2	1	20000	20000		14:30	14.2	1	20000	20000
	15:30	9.1	1	20000	20000		15:30	9.1	1	20000	20000
	16:30	2.6	1	20000	20000		16:30	2.6	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 08/Feb	00:30	0	0	20000	0	Thu, 08/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.4	1	20000	20000		08:30	3.4	1	20000	20000
	09:30	9.8	1	20000	20000		09:30	9.8	1	20000	20000
	10:30	14.8	1	20000	20000		10:30	14.8	1	20000	20000
	11:30	17.9	1	20000	20000		11:30	17.9	1	20000	20000
	12:30	19	1	20000	20000		12:30	19	1	20000	20000
	13:30	17.8	1	20000	20000		13:30	17.8	1	20000	20000
	14:30	14.5	1	20000	20000		14:30	14.5	1	20000	20000
	15:30	9.4	1	20000	20000		15:30	9.4	1	20000	20000
	16:30	2.9	1	20000	20000		16:30	2.9	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 09/Feb	00:30	0	0	20000	0	Fri, 09/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.7	1	20000	20000		08:30	3.7	1	20000	20000
	09:30	10.1	1	20000	20000		09:30	10.1	1	20000	20000
	10:30	15.1	1	20000	20000		10:30	15.1	1	20000	20000
	11:30	18.3	1	20000	20000		11:30	18.3	1	20000	20000

	12:30	19.3	1	20000	20000		12:30	19.3	1	20000	20000
	13:30	18.1	1	20000	20000		13:30	18.1	1	20000	20000
	14:30	14.8	1	20000	20000		14:30	14.8	1	20000	20000
	15:30	9.7	1	20000	20000		15:30	9.7	1	20000	20000
	16:30	3.2	1	20000	20000		16:30	3.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 10/Feb	00:30	0	0	20000	0	Sat, 10/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4	1	20000	20000		08:30	4	1	20000	20000
	09:30	10.4	1	20000	20000		09:30	10.4	1	20000	20000
	10:30	15.4	1	20000	20000		10:30	15.4	1	20000	20000
	11:30	18.6	1	20000	20000		11:30	18.6	1	20000	20000
	12:30	19.6	1	20000	20000		12:30	19.6	1	20000	20000
	13:30	18.4	1	20000	20000		13:30	18.4	1	20000	20000
	14:30	15.1	1	20000	20000		14:30	15.1	1	20000	20000
	15:30	10	1	20000	20000		15:30	10	1	20000	20000
	16:30	3.4	1	20000	20000		16:30	3.4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 11/Feb	00:30	0	0	20000	0	Sun, 11/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.2	1	20000	20000		08:30	4.2	1	20000	20000
	09:30	10.7	1	20000	20000		09:30	10.7	1	20000	20000
	10:30	15.7	1	20000	20000		10:30	15.7	1	20000	20000
	11:30	18.9	1	20000	20000		11:30	18.9	1	20000	20000
	12:30	19.9	1	20000	20000		12:30	19.9	1	20000	20000
	13:30	18.7	1	20000	20000		13:30	18.7	1	20000	20000
	14:30	15.4	1	20000	20000		14:30	15.4	1	20000	20000
	15:30	10.3	1	20000	20000		15:30	10.3	1	20000	20000
	16:30	3.7	1	20000	20000		16:30	3.7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 12/Feb	00:30	0	0	20000	0	Mon, 12/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.5	1	20000	20000		08:30	4.5	1	20000	20000
	09:30	11	1	20000	20000		09:30	11	1	20000	20000
	10:30	16	1	20000	20000		10:30	16	1	20000	20000
	11:30	19.2	1	20000	20000		11:30	19.2	1	20000	20000
	12:30	20.3	1	20000	20000		12:30	20.3	1	20000	20000
	13:30	19.1	1	20000	20000		13:30	19.1	1	20000	20000
	14:30	15.7	1	20000	20000		14:30	15.7	1	20000	20000
	15:30	10.6	1	20000	20000		15:30	10.6	1	20000	20000
	16:30	4	1	20000	20000		16:30	4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 13/Feb	00:30	0	0	20000	0	Tue, 13/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.8	1	20000	20000		08:30	4.8	1	20000	20000
	09:30	11.3	1	20000	20000		09:30	11.3	1	20000	20000
	10:30	16.3	1	20000	20000		10:30	16.3	1	20000	20000
	11:30	19.5	1	20000	20000		11:30	19.5	1	20000	20000
	12:30	20.6	1	20000	20000		12:30	20.6	1	20000	20000
	13:30	19.4	1	20000	20000		13:30	19.4	1	20000	20000
	14:30	16	1	20000	20000		14:30	16	1	20000	20000
	15:30	10.9	1	20000	20000		15:30	10.9	1	20000	20000
	16:30	4.3	1	20000	20000		16:30	4.3	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 14/Feb	00:30	0	0	20000	0	Wed, 14/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.1	1	20000	20000		08:30	5.1	1	20000	20000
	09:30	11.6	1	20000	20000		09:30	11.6	1	20000	20000
	10:30	16.7	1	20000	20000		10:30	16.7	1	20000	20000
	11:30	19.9	1	20000	20000		11:30	19.9	1	20000	20000
	12:30	20.9	1	20000	20000		12:30	20.9	1	20000	20000
	13:30	19.7	1	20000	20000		13:30	19.7	1	20000	20000
	14:30	16.4	1	20000	20000		14:30	16.4	1	20000	20000
	15:30	11.2	1	20000	20000		15:30	11.2	1	20000	20000
	16:30	4.6	1	20000	20000		16:30	4.6	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 15/Feb	00:30	0	0	20000	0	Thu, 15/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0

	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.4	1	20000	20000		08:30	5.4	1	20000	20000
	09:30	11.9	1	20000	20000		09:30	11.9	1	20000	20000
	10:30	17	1	20000	20000		10:30	17	1	20000	20000
	11:30	20.2	1	20000	20000		11:30	20.2	1	20000	20000
	12:30	21.3	1	20000	20000		12:30	21.3	1	20000	20000
	13:30	20.1	1	20000	20000		13:30	20.1	1	20000	20000
	14:30	16.7	1	20000	20000		14:30	16.7	1	20000	20000
	15:30	11.5	1	20000	20000		15:30	11.5	1	20000	20000
	16:30	4.9	1	20000	20000		16:30	4.9	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 16/Feb	00:30	0	0	20000	0	Fri, 16/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.7	1	20000	20000		08:30	5.7	1	20000	20000
	09:30	12.2	1	20000	20000		09:30	12.2	1	20000	20000
	10:30	17.3	1	20000	20000		10:30	17.3	1	20000	20000
	11:30	20.6	1	20000	20000		11:30	20.6	1	20000	20000
	12:30	21.6	1	20000	20000		12:30	21.6	1	20000	20000
	13:30	20.4	1	20000	20000		13:30	20.4	1	20000	20000
	14:30	17	1	20000	20000		14:30	17	1	20000	20000
	15:30	11.8	1	20000	20000		15:30	11.8	1	20000	20000
	16:30	5.2	1	20000	20000		16:30	5.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 17/Feb	00:30	0	0	20000	0	Sat, 17/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6	1	20000	20000		08:30	6	1	20000	20000
	09:30	12.6	1	20000	20000		09:30	12.6	1	20000	20000
	10:30	17.7	1	20000	20000		10:30	17.7	1	20000	20000
	11:30	20.9	1	20000	20000		11:30	20.9	1	20000	20000
	12:30	22	1	20000	20000		12:30	22	1	20000	20000
	13:30	20.7	1	20000	20000		13:30	20.7	1	20000	20000
	14:30	17.3	1	20000	20000		14:30	17.3	1	20000	20000
	15:30	12.1	1	20000	20000		15:30	12.1	1	20000	20000
	16:30	5.5	1	20000	20000		16:30	5.5	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 18/Feb	00:30	0	0	20000	0	Sun, 18/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.3	1	20000	20000		08:30	6.3	1	20000	20000
	09:30	12.9	1	20000	20000		09:30	12.9	1	20000	20000
	10:30	18	1	20000	20000		10:30	18	1	20000	20000
	11:30	21.3	1	20000	20000		11:30	21.3	1	20000	20000
	12:30	22.3	1	20000	20000		12:30	22.3	1	20000	20000
	13:30	21.1	1	20000	20000		13:30	21.1	1	20000	20000
	14:30	17.7	1	20000	20000		14:30	17.7	1	20000	20000
	15:30	12.4	1	20000	20000		15:30	12.4	1	20000	20000
	16:30	5.8	1	20000	20000		16:30	5.8	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 19/Feb	00:30	0	0	20000	0	Mon, 19/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.6	1	20000	20000		08:30	6.6	1	20000	20000
	09:30	13.2	1	20000	20000		09:30	13.2	1	20000	20000
	10:30	18.3	1	20000	20000		10:30	18.3	1	20000	20000
	11:30	21.6	1	20000	20000		11:30	21.6	1	20000	20000
	12:30	22.7	1	20000	20000		12:30	22.7	1	20000	20000
	13:30	21.4	1	20000	20000		13:30	21.4	1	20000	20000
	14:30	18	1	20000	20000		14:30	18	1	20000	20000
	15:30	12.8	1	20000	20000		15:30	12.8	1	20000	20000
	16:30	6.1	1	20000	20000		16:30	6.1	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 20/Feb	00:30	0	0	20000	0	Tue, 20/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7	1	20000	20000		08:30	7	1	20000	20000
	09:30	13.5	1	20000	20000		09:30	13.5	1	20000	20000
	10:30	18.7	1	20000	20000		10:30	18.7	1	20000	20000
	11:30	22	1	20000	20000		11:30	22	1	20000	20000
	12:30	23	1	20000	20000		12:30	23	1	20000	20000
	13:30	21.8	1	20000	20000		13:30	21.8	1	20000	20000
	14:30	18.3	1	20000	20000		14:30	18.3	1	20000	20000
	15:30	13.1	1	20000	20000		15:30	13.1	1	20000	20000
	16:30	6.4	1	20000	20000		16:30	6.4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0

	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 21/Feb	00:30	0	0	20000	0	Wed, 21/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.3	1	20000	20000		08:30	7.3	1	20000	20000
	09:30	13.9	1	20000	20000		09:30	13.9	1	20000	20000
	10:30	19	1	20000	20000		10:30	19	1	20000	20000
	11:30	22.3	1	20000	20000		11:30	22.3	1	20000	20000
	12:30	23.4	1	20000	20000		12:30	23.4	1	20000	20000
	13:30	22.1	1	20000	20000		13:30	22.1	1	20000	20000
	14:30	18.7	1	20000	20000		14:30	18.7	1	20000	20000
	15:30	13.4	1	20000	20000		15:30	13.4	1	20000	20000
	16:30	6.7	1	20000	20000		16:30	6.7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 22/Feb	00:30	0	0	20000	0	Thu, 22/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.6	1	20000	20000		08:30	7.6	1	20000	20000
	09:30	14.2	1	20000	20000		09:30	14.2	1	20000	20000
	10:30	19.4	1	20000	20000		10:30	19.4	1	20000	20000
	11:30	22.7	1	20000	20000		11:30	22.7	1	20000	20000
	12:30	23.7	1	20000	20000		12:30	23.7	1	20000	20000
	13:30	22.5	1	20000	20000		13:30	22.5	1	20000	20000
	14:30	19	1	20000	20000		14:30	19	1	20000	20000
	15:30	13.7	1	20000	20000		15:30	13.7	1	20000	20000
	16:30	7	1	20000	20000		16:30	7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 23/Feb	00:30	0	0	20000	0	Fri, 23/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.3	1	20000	20000		07:30	0.3	1	20000	20000
	08:30	8	1	20000	20000		08:30	8	1	20000	20000
	09:30	14.6	1	20000	20000		09:30	14.6	1	20000	20000
	10:30	19.7	1	20000	20000		10:30	19.7	1	20000	20000
	11:30	23	1	20000	20000		11:30	23	1	20000	20000
	12:30	24.1	1	20000	20000		12:30	24.1	1	20000	20000
	13:30	22.8	1	20000	20000		13:30	22.8	1	20000	20000
	14:30	19.4	1	20000	20000		14:30	19.4	1	20000	20000
	15:30	14	1	20000	20000		15:30	14	1	20000	20000
	16:30	7.3	1	20000	20000		16:30	7.3	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 24/Feb	00:30	0	0	20000	0	Sat, 24/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.7	1	20000	20000		07:30	0.7	1	20000	20000
	08:30	8.3	1	20000	20000		08:30	8.3	1	20000	20000
	09:30	14.9	1	20000	20000		09:30	14.9	1	20000	20000
	10:30	20.1	1	20000	20000		10:30	20.1	1	20000	20000
	11:30	23.4	1	20000	20000		11:30	23.4	1	20000	20000
	12:30	24.5	1	20000	20000		12:30	24.5	1	20000	20000
	13:30	23.2	1	20000	20000		13:30	23.2	1	20000	20000
	14:30	19.7	1	20000	20000		14:30	19.7	1	20000	20000
	15:30	14.4	1	20000	20000		15:30	14.4	1	20000	20000
	16:30	7.6	1	20000	20000		16:30	7.6	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 25/Feb	00:30	0	0	20000	0	Sun, 25/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1	1	20000	20000		07:30	1	1	20000	20000
	08:30	8.6	1	20000	20000		08:30	8.6	1	20000	20000
	09:30	15.3	1	20000	20000		09:30	15.3	1	20000	20000
	10:30	20.5	1	20000	20000		10:30	20.5	1	20000	20000
	11:30	23.8	1	20000	20000		11:30	23.8	1	20000	20000
	12:30	24.8	1	20000	20000		12:30	24.8	1	20000	20000
	13:30	23.6	1	20000	20000		13:30	23.6	1	20000	20000
	14:30	20	1	20000	20000		14:30	20	1	20000	20000
	15:30	14.7	1	20000	20000		15:30	14.7	1	20000	20000
	16:30	7.9	1	20000	20000		16:30	7.9	1	20000	20000
	17:30	0.2	1	20000	20000		17:30	0.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 26/Feb	00:30	0	0	20000	0	Mon, 26/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.3	1	20000	20000		07:30	1.3	1	20000	20000
	08:30	9	1	20000	20000		08:30	9	1	20000	20000
	09:30	15.6	1	20000	20000		09:30	15.6	1	20000	20000
	10:30	20.8	1	20000	20000		10:30	20.8	1	20000	20000
	11:30	24.2	1	20000	20000		11:30	24.2	1	20000	20000
	12:30	25.2	1	20000	20000		12:30	25.2	1	20000	20000
	13:30	23.9	1	20000	20000		13:30	23.9	1	20000	20000
	14:30	20.4	1	20000	20000		14:30	20.4	1	20000	20000

	15:30	15	1	20000	20000		15:30	15	1	20000	20000
	16:30	8.2	1	20000	20000		16:30	8.2	1	20000	20000
	17:30	0.5	1	20000	20000		17:30	0.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 27/Feb	00:30	0	0	20000	0	Tue, 27/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.7	1	20000	20000		07:30	1.7	1	20000	20000
	08:30	9.3	1	20000	20000		08:30	9.3	1	20000	20000
	09:30	16	1	20000	20000		09:30	16	1	20000	20000
	10:30	21.2	1	20000	20000		10:30	21.2	1	20000	20000
	11:30	24.5	1	20000	20000		11:30	24.5	1	20000	20000
	12:30	25.6	1	20000	20000		12:30	25.6	1	20000	20000
	13:30	24.3	1	20000	20000		13:30	24.3	1	20000	20000
	14:30	20.7	1	20000	20000		14:30	20.7	1	20000	20000
	15:30	15.3	1	20000	20000		15:30	15.3	1	20000	20000
	16:30	8.5	1	20000	20000		16:30	8.5	1	20000	20000
	17:30	0.8	1	20000	20000		17:30	0.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 28/Feb	00:30	0	0	20000	0	Wed, 28/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2	1	20000	20000		07:30	2	1	20000	20000
	08:30	9.7	1	20000	20000		08:30	9.7	1	20000	20000
	09:30	16.3	1	20000	20000		09:30	16.3	1	20000	20000
	10:30	21.6	1	20000	20000		10:30	21.6	1	20000	20000
	11:30	24.9	1	20000	20000		11:30	24.9	1	20000	20000
	12:30	26	1	20000	20000		12:30	26	1	20000	20000
	13:30	24.6	1	20000	20000		13:30	24.6	1	20000	20000
	14:30	21.1	1	20000	20000		14:30	21.1	1	20000	20000
	15:30	15.6	1	20000	20000		15:30	15.6	1	20000	20000
	16:30	8.8	1	20000	20000		16:30	8.8	1	20000	20000
	17:30	1.1	1	20000	20000		17:30	1.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 01/Mar	00:30	0	0	20000	0	Thu, 01/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.3	1	20000	20000		07:30	2.3	1	20000	20000
	08:30	10	1	20000	20000		08:30	10	1	20000	20000
	09:30	16.7	1	20000	20000		09:30	16.7	1	20000	20000
	10:30	22	1	20000	20000		10:30	22	1	20000	20000
	11:30	25.3	1	20000	20000		11:30	25.3	1	20000	20000
	12:30	26.3	1	20000	20000		12:30	26.3	1	20000	20000
	13:30	25	1	20000	20000		13:30	25	1	20000	20000
	14:30	21.4	1	20000	20000		14:30	21.4	1	20000	20000
	15:30	16	1	20000	20000		15:30	16	1	20000	20000
	16:30	9.1	1	20000	20000		16:30	9.1	1	20000	20000
	17:30	1.4	1	20000	20000		17:30	1.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 02/Mar	00:30	0	0	20000	0	Fri, 02/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.7	1	20000	20000		07:30	2.7	1	20000	20000
	08:30	10.4	1	20000	20000		08:30	10.4	1	20000	20000
	09:30	17.1	1	20000	20000		09:30	17.1	1	20000	20000
	10:30	22.3	1	20000	20000		10:30	22.3	1	20000	20000
	11:30	25.7	1	20000	20000		11:30	25.7	1	20000	20000
	12:30	26.7	1	20000	20000		12:30	26.7	1	20000	20000
	13:30	25.4	1	20000	20000		13:30	25.4	1	20000	20000
	14:30	21.8	1	20000	20000		14:30	21.8	1	20000	20000
	15:30	16.3	1	20000	20000		15:30	16.3	1	20000	20000
	16:30	9.5	1	20000	20000		16:30	9.5	1	20000	20000
	17:30	1.7	1	20000	20000		17:30	1.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 03/Mar	00:30	0	0	20000	0	Sat, 03/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3	1	20000	20000		07:30	3	1	20000	20000
	08:30	10.7	1	20000	20000		08:30	10.7	1	20000	20000
	09:30	17.4	1	20000	20000		09:30	17.4	1	20000	20000
	10:30	22.7	1	20000	20000		10:30	22.7	1	20000	20000
	11:30	26.1	1	20000	20000		11:30	26.1	1	20000	20000
	12:30	27.1	1	20000	20000		12:30	27.1	1	20000	20000
	13:30	25.7	1	20000	20000		13:30	25.7	1	20000	20000
	14:30	22.1	1	20000	20000		14:30	22.1	1	20000	20000
	15:30	16.6	1	20000	20000		15:30	16.6	1	20000	20000
	16:30	9.8	1	20000	20000		16:30	9.8	1	20000	20000
	17:30	2	1	20000	20000		17:30	2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 04/Mar	00:30	0	0	20000	0	Sun, 04/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.4	1	20000	20000		07:30	3.4	1	20000	20000

	08:30	11.1	1	20000	20000		08:30	11.1	1	20000	20000
	09:30	17.8	1	20000	20000		09:30	17.8	1	20000	20000
	10:30	23.1	1	20000	20000		10:30	23.1	1	20000	20000
	11:30	26.4	1	20000	20000		11:30	26.4	1	20000	20000
	12:30	27.5	1	20000	20000		12:30	27.5	1	20000	20000
	13:30	26.1	1	20000	20000		13:30	26.1	1	20000	20000
	14:30	22.5	1	20000	20000		14:30	22.5	1	20000	20000
	15:30	17	1	20000	20000		15:30	17	1	20000	20000
	16:30	10.1	1	20000	20000		16:30	10.1	1	20000	20000
	17:30	2.3	1	20000	20000		17:30	2.3	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 05/Mar	00:30	0	0	20000	0	Mon, 05/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.7	1	20000	20000		07:30	3.7	1	20000	20000
	08:30	11.4	1	20000	20000		08:30	11.4	1	20000	20000
	09:30	18.2	1	20000	20000		09:30	18.2	1	20000	20000
	10:30	23.5	1	20000	20000		10:30	23.5	1	20000	20000
	11:30	26.8	1	20000	20000		11:30	26.8	1	20000	20000
	12:30	27.9	1	20000	20000		12:30	27.9	1	20000	20000
	13:30	26.5	1	20000	20000		13:30	26.5	1	20000	20000
	14:30	22.8	1	20000	20000		14:30	22.8	1	20000	20000
	15:30	17.3	1	20000	20000		15:30	17.3	1	20000	20000
	16:30	10.4	1	20000	20000		16:30	10.4	1	20000	20000
	17:30	2.6	1	20000	20000		17:30	2.6	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 06/Mar	00:30	0	0	20000	0	Tue, 06/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.1	1	20000	20000		07:30	4.1	1	20000	20000
	08:30	11.8	1	20000	20000		08:30	11.8	1	20000	20000
	09:30	18.6	1	20000	20000		09:30	18.6	1	20000	20000
	10:30	23.9	1	20000	20000		10:30	23.9	1	20000	20000
	11:30	27.2	1	20000	20000		11:30	27.2	1	20000	20000
	12:30	28.3	1	20000	20000		12:30	28.3	1	20000	20000
	13:30	26.9	1	20000	20000		13:30	26.9	1	20000	20000
	14:30	23.2	1	20000	20000		14:30	23.2	1	20000	20000
	15:30	17.6	1	20000	20000		15:30	17.6	1	20000	20000
	16:30	10.7	1	20000	20000		16:30	10.7	1	20000	20000
	17:30	2.9	1	20000	20000		17:30	2.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 07/Mar	00:30	0	0	20000	0	Wed, 07/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.5	1	20000	20000		07:30	4.5	1	20000	20000
	08:30	12.2	1	20000	20000		08:30	12.2	1	20000	20000
	09:30	18.9	1	20000	20000		09:30	18.9	1	20000	20000
	10:30	24.2	1	20000	20000		10:30	24.2	1	20000	20000
	11:30	27.6	1	20000	20000		11:30	27.6	1	20000	20000
	12:30	28.7	1	20000	20000		12:30	28.7	1	20000	20000
	13:30	27.2	1	20000	20000		13:30	27.2	1	20000	20000
	14:30	23.5	1	20000	20000		14:30	23.5	1	20000	20000
	15:30	17.9	1	20000	20000		15:30	17.9	1	20000	20000
	16:30	11	1	20000	20000		16:30	11	1	20000	20000
	17:30	3.2	1	20000	20000		17:30	3.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 08/Mar	00:30	0	0	20000	0	Thu, 08/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.8	1	20000	20000		07:30	4.8	1	20000	20000
	08:30	12.5	1	20000	20000		08:30	12.5	1	20000	20000
	09:30	19.3	1	20000	20000		09:30	19.3	1	20000	20000
	10:30	24.6	1	20000	20000		10:30	24.6	1	20000	20000
	11:30	28	1	20000	20000		11:30	28	1	20000	20000
	12:30	29	1	20000	20000		12:30	29	1	20000	20000
	13:30	27.6	1	20000	20000		13:30	27.6	1	20000	20000
	14:30	23.9	1	20000	20000		14:30	23.9	1	20000	20000
	15:30	18.3	1	20000	20000		15:30	18.3	1	20000	20000
	16:30	11.3	1	20000	20000		16:30	11.3	1	20000	20000
	17:30	3.5	1	20000	20000		17:30	3.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 09/Mar	00:30	0	0	20000	0	Fri, 09/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.2	1	20000	20000		07:30	5.2	1	20000	20000
	08:30	12.9	1	20000	20000		08:30	12.9	1	20000	20000
	09:30	19.7	1	20000	20000		09:30	19.7	1	20000	20000
	10:30	25	1	20000	20000		10:30	25	1	20000	20000
	11:30	28.4	1	20000	20000		11:30	28.4	1	20000	20000
	12:30	29.4	1	20000	20000		12:30	29.4	1	20000	20000
	13:30	28	1	20000	20000		13:30	28	1	20000	20000
	14:30	24.2	1	20000	20000		14:30	24.2	1	20000	20000
	15:30	18.6	1	20000	20000		15:30	18.6	1	20000	20000
	16:30	11.6	1	20000	20000		16:30	11.6	1	20000	20000
	17:30	3.7	1	20000	20000		17:30	3.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 10/Mar	00:30	0	0	20000	0	Sat, 10/Mar	00:30	0	0	20000	0

	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.5	1	20000	20000		07:30	5.5	1	20000	20000
	08:30	13.3	1	20000	20000		08:30	13.3	1	20000	20000
	09:30	20.1	1	20000	20000		09:30	20.1	1	20000	20000
	10:30	25.4	1	20000	20000		10:30	25.4	1	20000	20000
	11:30	28.8	1	20000	20000		11:30	28.8	1	20000	20000
	12:30	29.8	1	20000	20000		12:30	29.8	1	20000	20000
	13:30	28.3	1	20000	20000		13:30	28.3	1	20000	20000
	14:30	24.6	1	20000	20000		14:30	24.6	1	20000	20000
	15:30	18.9	1	20000	20000		15:30	18.9	1	20000	20000
	16:30	11.9	1	20000	20000		16:30	11.9	1	20000	20000
	17:30	4	1	20000	20000		17:30	4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 11/Mar	00:30	0	0	20000	0	Sun, 11/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.9	1	20000	20000		07:30	5.9	1	20000	20000
	08:30	13.7	1	20000	20000		08:30	13.7	1	20000	20000
	09:30	20.5	1	20000	20000		09:30	20.5	1	20000	20000
	10:30	25.8	1	20000	20000		10:30	25.8	1	20000	20000
	11:30	29.2	1	20000	20000		11:30	29.2	1	20000	20000
	12:30	30.2	1	20000	20000		12:30	30.2	1	20000	20000
	13:30	28.7	1	20000	20000		13:30	28.7	1	20000	20000
	14:30	24.9	1	20000	20000		14:30	24.9	1	20000	20000
	15:30	19.2	1	20000	20000		15:30	19.2	1	20000	20000
	16:30	12.2	1	20000	20000		16:30	12.2	1	20000	20000
	17:30	4.3	1	20000	20000		17:30	4.3	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 12/Mar	00:30	0	0	20000	0	Mon, 12/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.3	1	20000	20000		07:30	6.3	1	20000	20000
	08:30	14	1	20000	20000		08:30	14	1	20000	20000
	09:30	20.8	1	20000	20000		09:30	20.8	1	20000	20000
	10:30	26.2	1	20000	20000		10:30	26.2	1	20000	20000
	11:30	29.6	1	20000	20000		11:30	29.6	1	20000	20000
	12:30	30.6	1	20000	20000		12:30	30.6	1	20000	20000
	13:30	29.1	1	20000	20000		13:30	29.1	1	20000	20000
	14:30	25.3	1	20000	20000		14:30	25.3	1	20000	20000
	15:30	19.6	1	20000	20000		15:30	19.6	1	20000	20000
	16:30	12.5	1	20000	20000		16:30	12.5	1	20000	20000
	17:30	4.6	1	20000	20000		17:30	4.6	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 13/Mar	00:30	0	0	20000	0	Tue, 13/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.6	1	20000	20000		07:30	6.6	1	20000	20000
	08:30	14.4	1	20000	20000		08:30	14.4	1	20000	20000
	09:30	21.2	1	20000	20000		09:30	21.2	1	20000	20000
	10:30	26.6	1	20000	20000		10:30	26.6	1	20000	20000
	11:30	30	1	20000	20000		11:30	30	1	20000	20000
	12:30	31	1	20000	20000		12:30	31	1	20000	20000
	13:30	29.5	1	20000	20000		13:30	29.5	1	20000	20000
	14:30	25.6	1	20000	20000		14:30	25.6	1	20000	20000
	15:30	19.9	1	20000	20000		15:30	19.9	1	20000	20000
	16:30	12.8	1	20000	20000		16:30	12.8	1	20000	20000
	17:30	4.9	1	20000	20000		17:30	4.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 14/Mar	00:30	0	0	20000	0	Wed, 14/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7	1	20000	20000		07:30	7	1	20000	20000
	08:30	14.8	1	20000	20000		08:30	14.8	1	20000	20000
	09:30	21.6	1	20000	20000		09:30	21.6	1	20000	20000
	10:30	27	1	20000	20000		10:30	27	1	20000	20000
	11:30	30.4	1	20000	20000		11:30	30.4	1	20000	20000
	12:30	31.4	1	20000	20000		12:30	31.4	1	20000	20000
	13:30	29.8	1	20000	20000		13:30	29.8	1	20000	20000
	14:30	26	1	20000	20000		14:30	26	1	20000	20000
	15:30	20.2	1	20000	20000		15:30	20.2	1	20000	20000
	16:30	13.1	1	20000	20000		16:30	13.1	1	20000	20000
	17:30	5.2	1	20000	20000		17:30	5.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 15/Mar	00:30	0	0	20000	0	Thu, 15/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.4	1	20000	20000		07:30	7.4	1	20000	20000
	08:30	15.2	1	20000	20000		08:30	15.2	1	20000	20000
	09:30	22	1	20000	20000		09:30	22	1	20000	20000
	10:30	27.4	1	20000	20000		10:30	27.4	1	20000	20000
	11:30	30.8	1	20000	20000		11:30	30.8	1	20000	20000
	12:30	31.8	1	20000	20000		12:30	31.8	1	20000	20000
	13:30	30.2	1	20000	20000		13:30	30.2	1	20000	20000
	14:30	26.3	1	20000	20000		14:30	26.3	1	20000	20000
	15:30	20.5	1	20000	20000		15:30	20.5	1	20000	20000
	16:30	13.4	1	20000	20000		16:30	13.4	1	20000	20000
	17:30	5.5	1	20000	20000		17:30	5.5	1	20000	20000

	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 16/Mar	00:30	0	0	20000	0	Fri, 16/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.8	1	20000	20000		07:30	7.8	1	20000	20000
	08:30	15.5	1	20000	20000		08:30	15.5	1	20000	20000
	09:30	22.4	1	20000	20000		09:30	22.4	1	20000	20000
	10:30	27.8	1	20000	20000		10:30	27.8	1	20000	20000
	11:30	31.2	1	20000	20000		11:30	31.2	1	20000	20000
	12:30	32.2	1	20000	20000		12:30	32.2	1	20000	20000
	13:30	30.6	1	20000	20000		13:30	30.6	1	20000	20000
	14:30	26.7	1	20000	20000		14:30	26.7	1	20000	20000
	15:30	20.9	1	20000	20000		15:30	20.9	1	20000	20000
	16:30	13.7	1	20000	20000		16:30	13.7	1	20000	20000
	17:30	5.8	1	20000	20000		17:30	5.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 17/Mar	00:30	0	0	20000	0	Sat, 17/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.1	1	20000	20000		07:30	8.1	1	20000	20000
	08:30	15.9	1	20000	20000		08:30	15.9	1	20000	20000
	09:30	22.8	1	20000	20000		09:30	22.8	1	20000	20000
	10:30	28.2	1	20000	20000		10:30	28.2	1	20000	20000
	11:30	31.6	1	20000	20000		11:30	31.6	1	20000	20000
	12:30	32.6	1	20000	20000		12:30	32.6	1	20000	20000
	13:30	31	1	20000	20000		13:30	31	1	20000	20000
	14:30	27	1	20000	20000		14:30	27	1	20000	20000
	15:30	21.2	1	20000	20000		15:30	21.2	1	20000	20000
	16:30	14	1	20000	20000		16:30	14	1	20000	20000
	17:30	6.1	1	20000	20000		17:30	6.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 18/Mar	00:30	0	0	20000	0	Sun, 18/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.2	1	20000	20000		06:30	0.2	1	20000	20000
	07:30	8.5	1	20000	20000		07:30	8.5	1	20000	20000
	08:30	16.3	1	20000	20000		08:30	16.3	1	20000	20000
	09:30	23.2	1	20000	20000		09:30	23.2	1	20000	20000
	10:30	28.6	1	20000	20000		10:30	28.6	1	20000	20000
	11:30	32	1	20000	20000		11:30	32	1	20000	20000
	12:30	33	1	20000	20000		12:30	33	1	20000	20000
	13:30	31.3	1	20000	20000		13:30	31.3	1	20000	20000
	14:30	27.4	1	20000	20000		14:30	27.4	1	20000	20000
	15:30	21.5	1	20000	20000		15:30	21.5	1	20000	20000
	16:30	14.3	1	20000	20000		16:30	14.3	1	20000	20000
	17:30	6.4	1	20000	20000		17:30	6.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 19/Mar	00:30	0	0	20000	0	Mon, 19/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.6	1	20000	20000		06:30	0.6	1	20000	20000
	07:30	8.9	1	20000	20000		07:30	8.9	1	20000	20000
	08:30	16.7	1	20000	20000		08:30	16.7	1	20000	20000
	09:30	23.6	1	20000	20000		09:30	23.6	1	20000	20000
	10:30	29	1	20000	20000		10:30	29	1	20000	20000
	11:30	32.4	1	20000	20000		11:30	32.4	1	20000	20000
	12:30	33.4	1	20000	20000		12:30	33.4	1	20000	20000
	13:30	31.7	1	20000	20000		13:30	31.7	1	20000	20000
	14:30	27.7	1	20000	20000		14:30	27.7	1	20000	20000
	15:30	21.8	1	20000	20000		15:30	21.8	1	20000	20000
	16:30	14.7	1	20000	20000		16:30	14.7	1	20000	20000
	17:30	6.7	1	20000	20000		17:30	6.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 20/Mar	00:30	0	0	20000	0	Tue, 20/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.9	1	20000	20000		06:30	0.9	1	20000	20000
	07:30	9.2	1	20000	20000		07:30	9.2	1	20000	20000
	08:30	17.1	1	20000	20000		08:30	17.1	1	20000	20000
	09:30	24	1	20000	20000		09:30	24	1	20000	20000
	10:30	29.4	1	20000	20000		10:30	29.4	1	20000	20000
	11:30	32.8	1	20000	20000		11:30	32.8	1	20000	20000
	12:30	33.7	1	20000	20000		12:30	33.7	1	20000	20000
	13:30	32.1	1	20000	20000		13:30	32.1	1	20000	20000
	14:30	28.1	1	20000	20000		14:30	28.1	1	20000	20000
	15:30	22.2	1	20000	20000		15:30	22.2	1	20000	20000
	16:30	15	1	20000	20000		16:30	15	1	20000	20000
	17:30	7	1	20000	20000		17:30	7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 21/Mar	00:30	0	0	20000	0	Wed, 21/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.3	1	20000	20000		06:30	1.3	1	20000	20000
	07:30	9.6	1	20000	20000		07:30	9.6	1	20000	20000
	08:30	17.4	1	20000	20000		08:30	17.4	1	20000	20000
	09:30	24.4	1	20000	20000		09:30	24.4	1	20000	20000
	10:30	29.8	1	20000	20000		10:30	29.8	1	20000	20000

	11:30	33.2	1	20000	20000		11:30	33.2	1	20000	20000
	12:30	34.1	1	20000	20000		12:30	34.1	1	20000	20000
	13:30	32.5	1	20000	20000		13:30	32.5	1	20000	20000
	14:30	28.4	1	20000	20000		14:30	28.4	1	20000	20000
	15:30	22.5	1	20000	20000		15:30	22.5	1	20000	20000
	16:30	15.3	1	20000	20000		16:30	15.3	1	20000	20000
	17:30	7.2	1	20000	20000		17:30	7.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 22/Mar	00:30	0	0	20000	0	Thu, 22/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.7	1	20000	20000		06:30	1.7	1	20000	20000
	07:30	10	1	20000	20000		07:30	10	1	20000	20000
	08:30	17.8	1	20000	20000		08:30	17.8	1	20000	20000
	09:30	24.7	1	20000	20000		09:30	24.7	1	20000	20000
	10:30	30.2	1	20000	20000		10:30	30.2	1	20000	20000
	11:30	33.6	1	20000	20000		11:30	33.6	1	20000	20000
	12:30	34.5	1	20000	20000		12:30	34.5	1	20000	20000
	13:30	32.8	1	20000	20000		13:30	32.8	1	20000	20000
	14:30	28.7	1	20000	20000		14:30	28.7	1	20000	20000
	15:30	22.8	1	20000	20000		15:30	22.8	1	20000	20000
	16:30	15.6	1	20000	20000		16:30	15.6	1	20000	20000
	17:30	7.5	1	20000	20000		17:30	7.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 23/Mar	00:30	0	0	20000	0	Fri, 23/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.1	1	20000	20000		06:30	2.1	1	20000	20000
	07:30	10.4	1	20000	20000		07:30	10.4	1	20000	20000
	08:30	18.2	1	20000	20000		08:30	18.2	1	20000	20000
	09:30	25.1	1	20000	20000		09:30	25.1	1	20000	20000
	10:30	30.6	1	20000	20000		10:30	30.6	1	20000	20000
	11:30	34	1	20000	20000		11:30	34	1	20000	20000
	12:30	34.9	1	20000	20000		12:30	34.9	1	20000	20000
	13:30	33.2	1	20000	20000		13:30	33.2	1	20000	20000
	14:30	29.1	1	20000	20000		14:30	29.1	1	20000	20000
	15:30	23.1	1	20000	20000		15:30	23.1	1	20000	20000
	16:30	15.8	1	20000	20000		16:30	15.8	1	20000	20000
	17:30	7.8	1	20000	20000		17:30	7.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 24/Mar	00:30	0	0	20000	0	Sat, 24/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.4	1	20000	20000		06:30	2.4	1	20000	20000
	07:30	10.7	1	20000	20000		07:30	10.7	1	20000	20000
	08:30	18.6	1	20000	20000		08:30	18.6	1	20000	20000
	09:30	25.5	1	20000	20000		09:30	25.5	1	20000	20000
	10:30	31	1	20000	20000		10:30	31	1	20000	20000
	11:30	34.4	1	20000	20000		11:30	34.4	1	20000	20000
	12:30	35.3	1	20000	20000		12:30	35.3	1	20000	20000
	13:30	33.6	1	20000	20000		13:30	33.6	1	20000	20000
	14:30	29.4	1	20000	20000		14:30	29.4	1	20000	20000
	15:30	23.4	1	20000	20000		15:30	23.4	1	20000	20000
	16:30	16.1	1	20000	20000		16:30	16.1	1	20000	20000
	17:30	8.1	1	20000	20000		17:30	8.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 25/Mar	00:30	0	0	20000	0	Sun, 25/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.8	1	20000	20000		06:30	2.8	1	20000	20000
	07:30	11.1	1	20000	20000		07:30	11.1	1	20000	20000
	08:30	19	1	20000	20000		08:30	19	1	20000	20000
	09:30	25.9	1	20000	20000		09:30	25.9	1	20000	20000
	10:30	31.4	1	20000	20000		10:30	31.4	1	20000	20000
	11:30	34.8	1	20000	20000		11:30	34.8	1	20000	20000
	12:30	35.7	1	20000	20000		12:30	35.7	1	20000	20000
	13:30	33.9	1	20000	20000		13:30	33.9	1	20000	20000
	14:30	29.8	1	20000	20000		14:30	29.8	1	20000	20000
	15:30	23.7	1	20000	20000		15:30	23.7	1	20000	20000
	16:30	16.4	1	20000	20000		16:30	16.4	1	20000	20000
	17:30	8.4	1	20000	20000		17:30	8.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 26/Mar	00:30	0	0	20000	0	Mon, 26/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.2	1	20000	20000		06:30	3.2	1	20000	20000
	07:30	11.5	1	20000	20000		07:30	11.5	1	20000	20000
	08:30	19.4	1	20000	20000		08:30	19.4	1	20000	20000
	09:30	26.3	1	20000	20000		09:30	26.3	1	20000	20000
	10:30	31.8	1	20000	20000		10:30	31.8	1	20000	20000
	11:30	35.2	1	20000	20000		11:30	35.2	1	20000	20000
	12:30	36.1	1	20000	20000		12:30	36.1	1	20000	20000
	13:30	34.3	1	20000	20000		13:30	34.3	1	20000	20000
	14:30	30.1	1	20000	20000		14:30	30.1	1	20000	20000
	15:30	24.1	1	20000	20000		15:30	24.1	1	20000	20000
	16:30	16.7	1	20000	20000		16:30	16.7	1	20000	20000
	17:30	8.7	1	20000	20000		17:30	8.7	1	20000	20000
	18:30	0.3	1	20000	20000		18:30	0.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 27/Mar	00:30	0	0	20000	0	Tue, 27/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0

	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.5	1	20000	20000		06:30	3.5	1	20000	20000
	07:30	11.9	1	20000	20000		07:30	11.9	1	20000	20000
	08:30	19.7	1	20000	20000		08:30	19.7	1	20000	20000
	09:30	26.7	1	20000	20000		09:30	26.7	1	20000	20000
	10:30	32.2	1	20000	20000		10:30	32.2	1	20000	20000
	11:30	35.6	1	20000	20000		11:30	35.6	1	20000	20000
	12:30	36.5	1	20000	20000		12:30	36.5	1	20000	20000
	13:30	34.7	1	20000	20000		13:30	34.7	1	20000	20000
	14:30	30.5	1	20000	20000		14:30	30.5	1	20000	20000
	15:30	24.4	1	20000	20000		15:30	24.4	1	20000	20000
	16:30	17	1	20000	20000		16:30	17	1	20000	20000
	17:30	8.9	1	20000	20000		17:30	8.9	1	20000	20000
	18:30	0.6	1	20000	20000		18:30	0.6	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 28/Mar	00:30	0	0	20000	0	Wed, 28/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.9	1	20000	20000		06:30	3.9	1	20000	20000
	07:30	12.2	1	20000	20000		07:30	12.2	1	20000	20000
	08:30	20.1	1	20000	20000		08:30	20.1	1	20000	20000
	09:30	27.1	1	20000	20000		09:30	27.1	1	20000	20000
	10:30	32.6	1	20000	20000		10:30	32.6	1	20000	20000
	11:30	36	1	20000	20000		11:30	36	1	20000	20000
	12:30	36.9	1	20000	20000		12:30	36.9	1	20000	20000
	13:30	35	1	20000	20000		13:30	35	1	20000	20000
	14:30	30.8	1	20000	20000		14:30	30.8	1	20000	20000
	15:30	24.7	1	20000	20000		15:30	24.7	1	20000	20000
	16:30	17.3	1	20000	20000		16:30	17.3	1	20000	20000
	17:30	9.2	1	20000	20000		17:30	9.2	1	20000	20000
	18:30	0.9	1	20000	20000		18:30	0.9	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 29/Mar	00:30	0	0	20000	0	Thu, 29/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.3	1	20000	20000		06:30	4.3	1	20000	20000
	07:30	12.6	1	20000	20000		07:30	12.6	1	20000	20000
	08:30	20.5	1	20000	20000		08:30	20.5	1	20000	20000
	09:30	27.5	1	20000	20000		09:30	27.5	1	20000	20000
	10:30	33	1	20000	20000		10:30	33	1	20000	20000
	11:30	36.4	1	20000	20000		11:30	36.4	1	20000	20000
	12:30	37.3	1	20000	20000		12:30	37.3	1	20000	20000
	13:30	35.4	1	20000	20000		13:30	35.4	1	20000	20000
	14:30	31.1	1	20000	20000		14:30	31.1	1	20000	20000
	15:30	25	1	20000	20000		15:30	25	1	20000	20000
	16:30	17.6	1	20000	20000		16:30	17.6	1	20000	20000
	17:30	9.5	1	20000	20000		17:30	9.5	1	20000	20000
	18:30	1.1	1	20000	20000		18:30	1.1	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 30/Mar	00:30	0	0	20000	0	Fri, 30/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.6	1	20000	20000		06:30	4.6	1	20000	20000
	07:30	13	1	20000	20000		07:30	13	1	20000	20000
	08:30	20.9	1	20000	20000		08:30	20.9	1	20000	20000
	09:30	27.9	1	20000	20000		09:30	27.9	1	20000	20000
	10:30	33.4	1	20000	20000		10:30	33.4	1	20000	20000
	11:30	36.8	1	20000	20000		11:30	36.8	1	20000	20000
	12:30	37.6	1	20000	20000		12:30	37.6	1	20000	20000
	13:30	35.8	1	20000	20000		13:30	35.8	1	20000	20000
	14:30	31.5	1	20000	20000		14:30	31.5	1	20000	20000
	15:30	25.3	1	20000	20000		15:30	25.3	1	20000	20000
	16:30	17.9	1	20000	20000		16:30	17.9	1	20000	20000
	17:30	9.8	1	20000	20000		17:30	9.8	1	20000	20000
	18:30	1.4	1	20000	20000		18:30	1.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 31/Mar	00:30	0	0	20000	0	Sat, 31/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5	1	20000	20000		06:30	5	1	20000	20000
	07:30	13.3	1	20000	20000		07:30	13.3	1	20000	20000
	08:30	21.2	1	20000	20000		08:30	21.2	1	20000	20000
	09:30	28.2	1	20000	20000		09:30	28.2	1	20000	20000
	10:30	33.8	1	20000	20000		10:30	33.8	1	20000	20000
	11:30	37.2	1	20000	20000		11:30	37.2	1	20000	20000
	12:30	38	1	20000	20000		12:30	38	1	20000	20000
	13:30	36.1	1	20000	20000		13:30	36.1	1	20000	20000
	14:30	31.8	1	20000	20000		14:30	31.8	1	20000	20000
	15:30	25.6	1	20000	20000		15:30	25.6	1	20000	20000
	16:30	18.2	1	20000	20000		16:30	18.2	1	20000	20000
	17:30	10.1	1	20000	20000		17:30	10.1	1	20000	20000
	18:30	1.7	1	20000	20000		18:30	1.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 01/Apr	00:30	0	0	20000	0	Sun, 01/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.4	1	20000	20000		07:30	5.4	1	20000	20000
	08:30	13.7	1	20000	20000		08:30	13.7	1	20000	20000
	09:30	21.6	1	20000	20000		09:30	21.6	1	20000	20000
	10:30	28.6	1	20000	20000		10:30	28.6	1	20000	20000
	11:30	34.2	1	20000	20000		11:30	34.2	1	20000	20000
	12:30	37.6	1	20000	20000		12:30	37.6	1	20000	20000
	13:30	38.4	1	20000	20000		13:30	38.4	1	20000	20000
	14:30	36.5	1	20000	20000		14:30	36.5	1	20000	20000
	15:30	32.1	1	20000	20000		15:30	32.1	1	20000	20000
	16:30	25.9	1	20000	20000		16:30	25.9	1	20000	20000
	17:30	18.5	1	20000	20000		17:30	18.5	1	20000	20000
	18:30	10.3	1	20000	20000		18:30	10.3	1	20000	20000
	19:30	2	1	20000	20000		19:30	2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0

	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 02/Apr	00:30	0	0	20000	0	Mon, 02/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.7	1	20000	20000		07:30	5.7	1	20000	20000
	08:30	14.1	1	20000	20000		08:30	14.1	1	20000	20000
	09:30	22	1	20000	20000		09:30	22	1	20000	20000
	10:30	29	1	20000	20000		10:30	29	1	20000	20000
	11:30	34.6	1	20000	20000		11:30	34.6	1	20000	20000
	12:30	38	1	20000	20000		12:30	38	1	20000	20000
	13:30	38.8	1	20000	20000		13:30	38.8	1	20000	20000
	14:30	36.9	1	20000	20000		14:30	36.9	1	20000	20000
	15:30	32.5	1	20000	20000		15:30	32.5	1	20000	20000
	16:30	26.2	1	20000	20000		16:30	26.2	1	20000	20000
	17:30	18.8	1	20000	20000		17:30	18.8	1	20000	20000
	18:30	10.6	1	20000	20000		18:30	10.6	1	20000	20000
	19:30	2.2	1	20000	20000		19:30	2.2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 03/Apr	00:30	0	0	20000	0	Tue, 03/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.1	1	20000	20000		07:30	6.1	1	20000	20000
	08:30	14.4	1	20000	20000		08:30	14.4	1	20000	20000
	09:30	22.4	1	20000	20000		09:30	22.4	1	20000	20000
	10:30	29.4	1	20000	20000		10:30	29.4	1	20000	20000
	11:30	34.9	1	20000	20000		11:30	34.9	1	20000	20000
	12:30	38.4	1	20000	20000		12:30	38.4	1	20000	20000
	13:30	39.2	1	20000	20000		13:30	39.2	1	20000	20000
	14:30	37.2	1	20000	20000		14:30	37.2	1	20000	20000
	15:30	32.8	1	20000	20000		15:30	32.8	1	20000	20000
	16:30	26.5	1	20000	20000		16:30	26.5	1	20000	20000
	17:30	19.1	1	20000	20000		17:30	19.1	1	20000	20000
	18:30	10.9	1	20000	20000		18:30	10.9	1	20000	20000
	19:30	2.5	1	20000	20000		19:30	2.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 04/Apr	00:30	0	0	20000	0	Wed, 04/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.5	1	20000	20000		07:30	6.5	1	20000	20000
	08:30	14.8	1	20000	20000		08:30	14.8	1	20000	20000
	09:30	22.7	1	20000	20000		09:30	22.7	1	20000	20000
	10:30	29.8	1	20000	20000		10:30	29.8	1	20000	20000
	11:30	35.3	1	20000	20000		11:30	35.3	1	20000	20000
	12:30	38.8	1	20000	20000		12:30	38.8	1	20000	20000
	13:30	39.6	1	20000	20000		13:30	39.6	1	20000	20000
	14:30	37.6	1	20000	20000		14:30	37.6	1	20000	20000
	15:30	33.1	1	20000	20000		15:30	33.1	1	20000	20000
	16:30	26.8	1	20000	20000		16:30	26.8	1	20000	20000
	17:30	19.3	1	20000	20000		17:30	19.3	1	20000	20000
	18:30	11.2	1	20000	20000		18:30	11.2	1	20000	20000
	19:30	2.8	1	20000	20000		19:30	2.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 05/Apr	00:30	0	0	20000	0	Thu, 05/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.8	1	20000	20000		07:30	6.8	1	20000	20000
	08:30	15.1	1	20000	20000		08:30	15.1	1	20000	20000
	09:30	23.1	1	20000	20000		09:30	23.1	1	20000	20000
	10:30	30.1	1	20000	20000		10:30	30.1	1	20000	20000
	11:30	35.7	1	20000	20000		11:30	35.7	1	20000	20000
	12:30	39.2	1	20000	20000		12:30	39.2	1	20000	20000
	13:30	39.9	1	20000	20000		13:30	39.9	1	20000	20000
	14:30	37.9	1	20000	20000		14:30	37.9	1	20000	20000
	15:30	33.4	1	20000	20000		15:30	33.4	1	20000	20000
	16:30	27.1	1	20000	20000		16:30	27.1	1	20000	20000
	17:30	19.6	1	20000	20000		17:30	19.6	1	20000	20000
	18:30	11.4	1	20000	20000		18:30	11.4	1	20000	20000
	19:30	3.1	1	20000	20000		19:30	3.1	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 06/Apr	00:30	0	0	20000	0	Fri, 06/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.2	1	20000	20000		07:30	7.2	1	20000	20000
	08:30	15.5	1	20000	20000		08:30	15.5	1	20000	20000
	09:30	23.5	1	20000	20000		09:30	23.5	1	20000	20000
	10:30	30.5	1	20000	20000		10:30	30.5	1	20000	20000
	11:30	36.1	1	20000	20000		11:30	36.1	1	20000	20000
	12:30	39.5	1	20000	20000		12:30	39.5	1	20000	20000
	13:30	40.3	1	20000	20000		13:30	40.3	1	20000	20000
	14:30	38.3	1	20000	20000		14:30	38.3	1	20000	20000
	15:30	33.8	1	20000	20000		15:30	33.8	1	20000	20000
	16:30	27.4	1	20000	20000		16:30	27.4	1	20000	20000
	17:30	19.9	1	20000	20000		17:30	19.9	1	20000	20000
	18:30	11.7	1	20000	20000		18:30	11.7	1	20000	20000
	19:30	3.3	1	20000	20000		19:30	3.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 07/Apr	00:30	0	0	20000	0	Sat, 07/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.5	1	20000	20000		07:30	7.5	1	20000	20000
	08:30	15.9	1	20000	20000		08:30	15.9	1	20000	20000
	09:30	23.8	1	20000	20000		09:30	23.8	1	20000	20000
	10:30	30.9	1	20000	20000		10:30	30.9	1	20000	20000
	11:30	36.5	1	20000	20000		11:30	36.5	1	20000	20000
	12:30	39.9	1	20000	20000		12:30	39.9	1	20000	20000
	13:30	40.7	1	20000	20000		13:30	40.7	1	20000	20000

	14:30	38.6	1	20000	20000		14:30	38.6	1	20000	20000
	15:30	34.1	1	20000	20000		15:30	34.1	1	20000	20000
	16:30	27.7	1	20000	20000		16:30	27.7	1	20000	20000
	17:30	20.2	1	20000	20000		17:30	20.2	1	20000	20000
	18:30	12	1	20000	20000		18:30	12	1	20000	20000
	19:30	3.6	1	20000	20000		19:30	3.6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 08/Apr	00:30	0	0	20000	0	Sun, 08/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.9	1	20000	20000		07:30	7.9	1	20000	20000
	08:30	16.2	1	20000	20000		08:30	16.2	1	20000	20000
	09:30	24.2	1	20000	20000		09:30	24.2	1	20000	20000
	10:30	31.3	1	20000	20000		10:30	31.3	1	20000	20000
	11:30	36.9	1	20000	20000		11:30	36.9	1	20000	20000
	12:30	40.3	1	20000	20000		12:30	40.3	1	20000	20000
	13:30	41.1	1	20000	20000		13:30	41.1	1	20000	20000
	14:30	39	1	20000	20000		14:30	39	1	20000	20000
	15:30	34.4	1	20000	20000		15:30	34.4	1	20000	20000
	16:30	28	1	20000	20000		16:30	28	1	20000	20000
	17:30	20.5	1	20000	20000		17:30	20.5	1	20000	20000
	18:30	12.3	1	20000	20000		18:30	12.3	1	20000	20000
	19:30	3.9	1	20000	20000		19:30	3.9	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 09/Apr	00:30	0	0	20000	0	Mon, 09/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.2	1	20000	20000		07:30	8.2	1	20000	20000
	08:30	16.6	1	20000	20000		08:30	16.6	1	20000	20000
	09:30	24.5	1	20000	20000		09:30	24.5	1	20000	20000
	10:30	31.6	1	20000	20000		10:30	31.6	1	20000	20000
	11:30	37.2	1	20000	20000		11:30	37.2	1	20000	20000
	12:30	40.7	1	20000	20000		12:30	40.7	1	20000	20000
	13:30	41.4	1	20000	20000		13:30	41.4	1	20000	20000
	14:30	39.3	1	20000	20000		14:30	39.3	1	20000	20000
	15:30	34.7	1	20000	20000		15:30	34.7	1	20000	20000
	16:30	28.3	1	20000	20000		16:30	28.3	1	20000	20000
	17:30	20.7	1	20000	20000		17:30	20.7	1	20000	20000
	18:30	12.5	1	20000	20000		18:30	12.5	1	20000	20000
	19:30	4.1	1	20000	20000		19:30	4.1	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 10/Apr	00:30	0	0	20000	0	Tue, 10/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.3	1	20000	20000		06:30	0.3	1	20000	20000
	07:30	8.6	1	20000	20000		07:30	8.6	1	20000	20000
	08:30	16.9	1	20000	20000		08:30	16.9	1	20000	20000
	09:30	24.9	1	20000	20000		09:30	24.9	1	20000	20000
	10:30	32	1	20000	20000		10:30	32	1	20000	20000
	11:30	37.6	1	20000	20000		11:30	37.6	1	20000	20000
	12:30	41.1	1	20000	20000		12:30	41.1	1	20000	20000
	13:30	41.8	1	20000	20000		13:30	41.8	1	20000	20000
	14:30	39.7	1	20000	20000		14:30	39.7	1	20000	20000
	15:30	35.1	1	20000	20000		15:30	35.1	1	20000	20000
	16:30	28.6	1	20000	20000		16:30	28.6	1	20000	20000
	17:30	21	1	20000	20000		17:30	21	1	20000	20000
	18:30	12.8	1	20000	20000		18:30	12.8	1	20000	20000
	19:30	4.4	1	20000	20000		19:30	4.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 11/Apr	00:30	0	0	20000	0	Wed, 11/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.6	1	20000	20000		06:30	0.6	1	20000	20000
	07:30	8.9	1	20000	20000		07:30	8.9	1	20000	20000
	08:30	17.3	1	20000	20000		08:30	17.3	1	20000	20000
	09:30	25.2	1	20000	20000		09:30	25.2	1	20000	20000
	10:30	32.4	1	20000	20000		10:30	32.4	1	20000	20000
	11:30	38	1	20000	20000		11:30	38	1	20000	20000
	12:30	41.4	1	20000	20000		12:30	41.4	1	20000	20000
	13:30	42.2	1	20000	20000		13:30	42.2	1	20000	20000
	14:30	40	1	20000	20000		14:30	40	1	20000	20000
	15:30	35.4	1	20000	20000		15:30	35.4	1	20000	20000
	16:30	28.9	1	20000	20000		16:30	28.9	1	20000	20000
	17:30	21.3	1	20000	20000		17:30	21.3	1	20000	20000
	18:30	13.1	1	20000	20000		18:30	13.1	1	20000	20000
	19:30	4.7	1	20000	20000		19:30	4.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 12/Apr	00:30	0	0	20000	0	Thu, 12/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.9	1	20000	20000		06:30	0.9	1	20000	20000
	07:30	9.3	1	20000	20000		07:30	9.3	1	20000	20000
	08:30	17.6	1	20000	20000		08:30	17.6	1	20000	20000
	09:30	25.6	1	20000	20000		09:30	25.6	1	20000	20000
	10:30	32.7	1	20000	20000		10:30	32.7	1	20000	20000
	11:30	38.4	1	20000	20000		11:30	38.4	1	20000	20000
	12:30	41.8	1	20000	20000		12:30	41.8	1	20000	20000
	13:30	42.5	1	20000	20000		13:30	42.5	1	20000	20000
	14:30	40.3	1	20000	20000		14:30	40.3	1	20000	20000
	15:30	35.7	1	20000	20000		15:30	35.7	1	20000	20000
	16:30	29.2	1	20000	20000		16:30	29.2	1	20000	20000
	17:30	21.6	1	20000	20000		17:30	21.6	1	20000	20000
	18:30	13.3	1	20000	20000		18:30	13.3	1	20000	20000
	19:30	4.9	1	20000	20000		19:30	4.9	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 13/Apr	00:30	0	0	20000	0	Fri, 13/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.3	1	20000	20000		06:30	1.3	1	20000	20000

	07:30	9.6	1	20000	20000		07:30	9.6	1	20000	20000
	08:30	17.9	1	20000	20000		08:30	17.9	1	20000	20000
	09:30	25.9	1	20000	20000		09:30	25.9	1	20000	20000
	10:30	33.1	1	20000	20000		10:30	33.1	1	20000	20000
	11:30	38.7	1	20000	20000		11:30	38.7	1	20000	20000
	12:30	42.2	1	20000	20000		12:30	42.2	1	20000	20000
	13:30	42.9	1	20000	20000		13:30	42.9	1	20000	20000
	14:30	40.7	1	20000	20000		14:30	40.7	1	20000	20000
	15:30	36	1	20000	20000		15:30	36	1	20000	20000
	16:30	29.5	1	20000	20000		16:30	29.5	1	20000	20000
	17:30	21.8	1	20000	20000		17:30	21.8	1	20000	20000
	18:30	13.6	1	20000	20000		18:30	13.6	1	20000	20000
	19:30	5.2	1	20000	20000		19:30	5.2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 14/Apr	00:30	0	0	20000	0	Sat, 14/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.6	1	20000	20000		06:30	1.6	1	20000	20000
	07:30	9.9	1	20000	20000		07:30	9.9	1	20000	20000
	08:30	18.3	1	20000	20000		08:30	18.3	1	20000	20000
	09:30	26.3	1	20000	20000		09:30	26.3	1	20000	20000
	10:30	33.4	1	20000	20000		10:30	33.4	1	20000	20000
	11:30	39.1	1	20000	20000		11:30	39.1	1	20000	20000
	12:30	42.6	1	20000	20000		12:30	42.6	1	20000	20000
	13:30	43.2	1	20000	20000		13:30	43.2	1	20000	20000
	14:30	41	1	20000	20000		14:30	41	1	20000	20000
	15:30	36.3	1	20000	20000		15:30	36.3	1	20000	20000
	16:30	29.8	1	20000	20000		16:30	29.8	1	20000	20000
	17:30	22.1	1	20000	20000		17:30	22.1	1	20000	20000
	18:30	13.8	1	20000	20000		18:30	13.8	1	20000	20000
	19:30	5.5	1	20000	20000		19:30	5.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 15/Apr	00:30	0	0	20000	0	Sun, 15/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2	1	20000	20000		06:30	2	1	20000	20000
	07:30	10.3	1	20000	20000		07:30	10.3	1	20000	20000
	08:30	18.6	1	20000	20000		08:30	18.6	1	20000	20000
	09:30	26.6	1	20000	20000		09:30	26.6	1	20000	20000
	10:30	33.8	1	20000	20000		10:30	33.8	1	20000	20000
	11:30	39.5	1	20000	20000		11:30	39.5	1	20000	20000
	12:30	42.9	1	20000	20000		12:30	42.9	1	20000	20000
	13:30	43.6	1	20000	20000		13:30	43.6	1	20000	20000
	14:30	41.4	1	20000	20000		14:30	41.4	1	20000	20000
	15:30	36.6	1	20000	20000		15:30	36.6	1	20000	20000
	16:30	30	1	20000	20000		16:30	30	1	20000	20000
	17:30	22.4	1	20000	20000		17:30	22.4	1	20000	20000
	18:30	14.1	1	20000	20000		18:30	14.1	1	20000	20000
	19:30	5.7	1	20000	20000		19:30	5.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 16/Apr	00:30	0	0	20000	0	Mon, 16/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.3	1	20000	20000		06:30	2.3	1	20000	20000
	07:30	10.6	1	20000	20000		07:30	10.6	1	20000	20000
	08:30	19	1	20000	20000		08:30	19	1	20000	20000
	09:30	27	1	20000	20000		09:30	27	1	20000	20000
	10:30	34.1	1	20000	20000		10:30	34.1	1	20000	20000
	11:30	39.8	1	20000	20000		11:30	39.8	1	20000	20000
	12:30	43.3	1	20000	20000		12:30	43.3	1	20000	20000
	13:30	44	1	20000	20000		13:30	44	1	20000	20000
	14:30	41.7	1	20000	20000		14:30	41.7	1	20000	20000
	15:30	36.9	1	20000	20000		15:30	36.9	1	20000	20000
	16:30	30.3	1	20000	20000		16:30	30.3	1	20000	20000
	17:30	22.6	1	20000	20000		17:30	22.6	1	20000	20000
	18:30	14.4	1	20000	20000		18:30	14.4	1	20000	20000
	19:30	6	1	20000	20000		19:30	6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 17/Apr	00:30	0	0	20000	0	Tue, 17/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.6	1	20000	20000		06:30	2.6	1	20000	20000
	07:30	10.9	1	20000	20000		07:30	10.9	1	20000	20000
	08:30	19.3	1	20000	20000		08:30	19.3	1	20000	20000
	09:30	27.3	1	20000	20000		09:30	27.3	1	20000	20000
	10:30	34.5	1	20000	20000		10:30	34.5	1	20000	20000
	11:30	40.2	1	20000	20000		11:30	40.2	1	20000	20000
	12:30	43.6	1	20000	20000		12:30	43.6	1	20000	20000
	13:30	44.3	1	20000	20000		13:30	44.3	1	20000	20000
	14:30	42	1	20000	20000		14:30	42	1	20000	20000
	15:30	37.2	1	20000	20000		15:30	37.2	1	20000	20000
	16:30	30.6	1	20000	20000		16:30	30.6	1	20000	20000
	17:30	22.9	1	20000	20000		17:30	22.9	1	20000	20000
	18:30	14.6	1	20000	20000		18:30	14.6	1	20000	20000
	19:30	6.3	1	20000	20000		19:30	6.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 18/Apr	00:30	0	0	20000	0	Wed, 18/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3	1	20000	20000		06:30	3	1	20000	20000
	07:30	11.2	1	20000	20000		07:30	11.2	1	20000	20000
	08:30	19.6	1	20000	20000		08:30	19.6	1	20000	20000
	09:30	27.6	1	20000	20000		09:30	27.6	1	20000	20000
	10:30	34.8	1	20000	20000		10:30	34.8	1	20000	20000
	11:30	40.5	1	20000	20000		11:30	40.5	1	20000	20000
	12:30	44	1	20000	20000		12:30	44	1	20000	20000
	13:30	44.7	1	20000	20000		13:30	44.7	1	20000	20000
	14:30	42.3	1	20000	20000		14:30	42.3	1	20000	20000
	15:30	37.5	1	20000	20000		15:30	37.5	1	20000	20000
	16:30	30.9	1	20000	20000		16:30	30.9	1	20000	20000
	17:30	23.2	1	20000	20000		17:30	23.2	1	20000	20000
	18:30	14.9	1	20000	20000		18:30	14.9	1	20000	20000
	19:30	6.5	1	20000	20000		19:30	6.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0

Thu, 19/Apr	00:30	0	0	20000	0	Thu, 19/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.3	1	20000	20000		06:30	3.3	1	20000	20000
	07:30	11.6	1	20000	20000		07:30	11.6	1	20000	20000
	08:30	19.9	1	20000	20000		08:30	19.9	1	20000	20000
	09:30	28	1	20000	20000		09:30	28	1	20000	20000
	10:30	35.2	1	20000	20000		10:30	35.2	1	20000	20000
	11:30	40.9	1	20000	20000		11:30	40.9	1	20000	20000
	12:30	44.4	1	20000	20000		12:30	44.4	1	20000	20000
	13:30	45	1	20000	20000		13:30	45	1	20000	20000
	14:30	42.7	1	20000	20000		14:30	42.7	1	20000	20000
	15:30	37.8	1	20000	20000		15:30	37.8	1	20000	20000
	16:30	31.2	1	20000	20000		16:30	31.2	1	20000	20000
	17:30	23.4	1	20000	20000		17:30	23.4	1	20000	20000
	18:30	15.1	1	20000	20000		18:30	15.1	1	20000	20000
	19:30	6.8	1	20000	20000		19:30	6.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 20/Apr	00:30	0	0	20000	0	Fri, 20/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.6	1	20000	20000		06:30	3.6	1	20000	20000
	07:30	11.9	1	20000	20000		07:30	11.9	1	20000	20000
	08:30	20.2	1	20000	20000		08:30	20.2	1	20000	20000
	09:30	28.3	1	20000	20000		09:30	28.3	1	20000	20000
	10:30	35.5	1	20000	20000		10:30	35.5	1	20000	20000
	11:30	41.2	1	20000	20000		11:30	41.2	1	20000	20000
	12:30	44.7	1	20000	20000		12:30	44.7	1	20000	20000
	13:30	45.3	1	20000	20000		13:30	45.3	1	20000	20000
	14:30	43	1	20000	20000		14:30	43	1	20000	20000
	15:30	38.1	1	20000	20000		15:30	38.1	1	20000	20000
	16:30	31.4	1	20000	20000		16:30	31.4	1	20000	20000
	17:30	23.7	1	20000	20000		17:30	23.7	1	20000	20000
	18:30	15.4	1	20000	20000		18:30	15.4	1	20000	20000
	19:30	7	1	20000	20000		19:30	7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 21/Apr	00:30	0	0	20000	0	Sat, 21/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.9	1	20000	20000		06:30	3.9	1	20000	20000
	07:30	12.2	1	20000	20000		07:30	12.2	1	20000	20000
	08:30	20.6	1	20000	20000		08:30	20.6	1	20000	20000
	09:30	28.6	1	20000	20000		09:30	28.6	1	20000	20000
	10:30	35.8	1	20000	20000		10:30	35.8	1	20000	20000
	11:30	41.6	1	20000	20000		11:30	41.6	1	20000	20000
	12:30	45.1	1	20000	20000		12:30	45.1	1	20000	20000
	13:30	45.7	1	20000	20000		13:30	45.7	1	20000	20000
	14:30	43.3	1	20000	20000		14:30	43.3	1	20000	20000
	15:30	38.4	1	20000	20000		15:30	38.4	1	20000	20000
	16:30	31.7	1	20000	20000		16:30	31.7	1	20000	20000
	17:30	23.9	1	20000	20000		17:30	23.9	1	20000	20000
	18:30	15.6	1	20000	20000		18:30	15.6	1	20000	20000
	19:30	7.3	1	20000	20000		19:30	7.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 22/Apr	00:30	0	0	20000	0	Sun, 22/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.2	1	20000	20000		06:30	4.2	1	20000	20000
	07:30	12.5	1	20000	20000		07:30	12.5	1	20000	20000
	08:30	20.9	1	20000	20000		08:30	20.9	1	20000	20000
	09:30	28.9	1	20000	20000		09:30	28.9	1	20000	20000
	10:30	36.1	1	20000	20000		10:30	36.1	1	20000	20000
	11:30	41.9	1	20000	20000		11:30	41.9	1	20000	20000
	12:30	45.4	1	20000	20000		12:30	45.4	1	20000	20000
	13:30	46	1	20000	20000		13:30	46	1	20000	20000
	14:30	43.6	1	20000	20000		14:30	43.6	1	20000	20000
	15:30	38.7	1	20000	20000		15:30	38.7	1	20000	20000
	16:30	32	1	20000	20000		16:30	32	1	20000	20000
	17:30	24.2	1	20000	20000		17:30	24.2	1	20000	20000
	18:30	15.9	1	20000	20000		18:30	15.9	1	20000	20000
	19:30	7.5	1	20000	20000		19:30	7.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 23/Apr	00:30	0	0	20000	0	Mon, 23/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.5	1	20000	20000		06:30	4.5	1	20000	20000
	07:30	12.8	1	20000	20000		07:30	12.8	1	20000	20000
	08:30	21.2	1	20000	20000		08:30	21.2	1	20000	20000
	09:30	29.2	1	20000	20000		09:30	29.2	1	20000	20000
	10:30	36.5	1	20000	20000		10:30	36.5	1	20000	20000
	11:30	42.2	1	20000	20000		11:30	42.2	1	20000	20000
	12:30	45.7	1	20000	20000		12:30	45.7	1	20000	20000
	13:30	46.3	1	20000	20000		13:30	46.3	1	20000	20000
	14:30	43.9	1	20000	20000		14:30	43.9	1	20000	20000
	15:30	39	1	20000	20000		15:30	39	1	20000	20000
	16:30	32.2	1	20000	20000		16:30	32.2	1	20000	20000
	17:30	24.4	1	20000	20000		17:30	24.4	1	20000	20000
	18:30	16.1	1	20000	20000		18:30	16.1	1	20000	20000
	19:30	7.8	1	20000	20000		19:30	7.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 24/Apr	00:30	0	0	20000	0	Tue, 24/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.8	1	20000	20000		06:30	4.8	1	20000	20000
	07:30	13.1	1	20000	20000		07:30	13.1	1	20000	20000
	08:30	21.5	1	20000	20000		08:30	21.5	1	20000	20000
	09:30	29.5	1	20000	20000		09:30	29.5	1	20000	20000
	10:30	36.8	1	20000	20000		10:30	36.8	1	20000	20000
	11:30	42.6	1	20000	20000		11:30	42.6	1	20000	20000
	12:30	46.1	1	20000	20000		12:30	46.1	1	20000	20000
	13:30	46.7	1	20000	20000		13:30	46.7	1	20000	20000
	14:30	44.2	1	20000	20000		14:30	44.2	1	20000	20000
	15:30	39.3	1	20000	20000		15:30	39.3	1	20000	20000
	16:30	32.5	1	20000	20000		16:30	32.5	1	20000	20000

	17:30	24.7	1	20000	20000		17:30	24.7	1	20000	20000
	18:30	16.4	1	20000	20000		18:30	16.4	1	20000	20000
	19:30	8	1	20000	20000		19:30	8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 25/Apr	00:30	0	0	20000	0	Wed, 25/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.1	1	20000	20000		06:30	5.1	1	20000	20000
	07:30	13.4	1	20000	20000		07:30	13.4	1	20000	20000
	08:30	21.8	1	20000	20000		08:30	21.8	1	20000	20000
	09:30	29.8	1	20000	20000		09:30	29.8	1	20000	20000
	10:30	37.1	1	20000	20000		10:30	37.1	1	20000	20000
	11:30	42.9	1	20000	20000		11:30	42.9	1	20000	20000
	12:30	46.4	1	20000	20000		12:30	46.4	1	20000	20000
	13:30	47	1	20000	20000		13:30	47	1	20000	20000
	14:30	44.5	1	20000	20000		14:30	44.5	1	20000	20000
	15:30	39.5	1	20000	20000		15:30	39.5	1	20000	20000
	16:30	32.8	1	20000	20000		16:30	32.8	1	20000	20000
	17:30	24.9	1	20000	20000		17:30	24.9	1	20000	20000
	18:30	16.6	1	20000	20000		18:30	16.6	1	20000	20000
	19:30	8.3	1	20000	20000		19:30	8.3	1	20000	20000
	20:30	0.3	1	20000	20000		20:30	0.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 26/Apr	00:30	0	0	20000	0	Thu, 26/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.4	1	20000	20000		06:30	5.4	1	20000	20000
	07:30	13.7	1	20000	20000		07:30	13.7	1	20000	20000
	08:30	22.1	1	20000	20000		08:30	22.1	1	20000	20000
	09:30	30.1	1	20000	20000		09:30	30.1	1	20000	20000
	10:30	37.4	1	20000	20000		10:30	37.4	1	20000	20000
	11:30	43.2	1	20000	20000		11:30	43.2	1	20000	20000
	12:30	46.7	1	20000	20000		12:30	46.7	1	20000	20000
	13:30	47.3	1	20000	20000		13:30	47.3	1	20000	20000
	14:30	44.8	1	20000	20000		14:30	44.8	1	20000	20000
	15:30	39.8	1	20000	20000		15:30	39.8	1	20000	20000
	16:30	33	1	20000	20000		16:30	33	1	20000	20000
	17:30	25.2	1	20000	20000		17:30	25.2	1	20000	20000
	18:30	16.9	1	20000	20000		18:30	16.9	1	20000	20000
	19:30	8.5	1	20000	20000		19:30	8.5	1	20000	20000
	20:30	0.5	1	20000	20000		20:30	0.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 27/Apr	00:30	0	0	20000	0	Fri, 27/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.7	1	20000	20000		06:30	5.7	1	20000	20000
	07:30	14	1	20000	20000		07:30	14	1	20000	20000
	08:30	22.4	1	20000	20000		08:30	22.4	1	20000	20000
	09:30	30.4	1	20000	20000		09:30	30.4	1	20000	20000
	10:30	37.7	1	20000	20000		10:30	37.7	1	20000	20000
	11:30	43.5	1	20000	20000		11:30	43.5	1	20000	20000
	12:30	47.1	1	20000	20000		12:30	47.1	1	20000	20000
	13:30	47.6	1	20000	20000		13:30	47.6	1	20000	20000
	14:30	45.1	1	20000	20000		14:30	45.1	1	20000	20000
	15:30	40.1	1	20000	20000		15:30	40.1	1	20000	20000
	16:30	33.3	1	20000	20000		16:30	33.3	1	20000	20000
	17:30	25.4	1	20000	20000		17:30	25.4	1	20000	20000
	18:30	17.1	1	20000	20000		18:30	17.1	1	20000	20000
	19:30	8.8	1	20000	20000		19:30	8.8	1	20000	20000
	20:30	0.8	1	20000	20000		20:30	0.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 28/Apr	00:30	0	0	20000	0	Sat, 28/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6	1	20000	20000		06:30	6	1	20000	20000
	07:30	14.3	1	20000	20000		07:30	14.3	1	20000	20000
	08:30	22.6	1	20000	20000		08:30	22.6	1	20000	20000
	09:30	30.7	1	20000	20000		09:30	30.7	1	20000	20000
	10:30	38	1	20000	20000		10:30	38	1	20000	20000
	11:30	43.8	1	20000	20000		11:30	43.8	1	20000	20000
	12:30	47.4	1	20000	20000		12:30	47.4	1	20000	20000
	13:30	48	1	20000	20000		13:30	48	1	20000	20000
	14:30	45.4	1	20000	20000		14:30	45.4	1	20000	20000
	15:30	40.4	1	20000	20000		15:30	40.4	1	20000	20000
	16:30	33.5	1	20000	20000		16:30	33.5	1	20000	20000
	17:30	25.7	1	20000	20000		17:30	25.7	1	20000	20000
	18:30	17.3	1	20000	20000		18:30	17.3	1	20000	20000
	19:30	9	1	20000	20000		19:30	9	1	20000	20000
	20:30	1	1	20000	20000		20:30	1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 29/Apr	00:30	0	0	20000	0	Sun, 29/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.3	1	20000	20000		06:30	6.3	1	20000	20000
	07:30	14.5	1	20000	20000		07:30	14.5	1	20000	20000
	08:30	22.9	1	20000	20000		08:30	22.9	1	20000	20000
	09:30	31	1	20000	20000		09:30	31	1	20000	20000
	10:30	38.3	1	20000	20000		10:30	38.3	1	20000	20000
	11:30	44.1	1	20000	20000		11:30	44.1	1	20000	20000
	12:30	47.7	1	20000	20000		12:30	47.7	1	20000	20000
	13:30	48.3	1	20000	20000		13:30	48.3	1	20000	20000
	14:30	45.7	1	20000	20000		14:30	45.7	1	20000	20000
	15:30	40.6	1	20000	20000		15:30	40.6	1	20000	20000
	16:30	33.8	1	20000	20000		16:30	33.8	1	20000	20000
	17:30	25.9	1	20000	20000		17:30	25.9	1	20000	20000
	18:30	17.6	1	20000	20000		18:30	17.6	1	20000	20000
	19:30	9.2	1	20000	20000		19:30	9.2	1	20000	20000
	20:30	1.3	1	20000	20000		20:30	1.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 30/Apr	00:30	0	0	20000	0	Mon, 30/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.6	1	20000	20000		06:30	6.6	1	20000	20000
	07:30	14.8	1	20000	20000		07:30	14.8	1	20000	20000
	08:30	23.2	1	20000	20000		08:30	23.2	1	20000	20000
	09:30	31.3	1	20000	20000		09:30	31.3	1	20000	20000

	10:30	38.6	1	20000	20000		10:30	38.6	1	20000	20000
	11:30	44.5	1	20000	20000		11:30	44.5	1	20000	20000
	12:30	48	1	20000	20000		12:30	48	1	20000	20000
	13:30	48.6	1	20000	20000		13:30	48.6	1	20000	20000
	14:30	46	1	20000	20000		14:30	46	1	20000	20000
	15:30	40.9	1	20000	20000		15:30	40.9	1	20000	20000
	16:30	34	1	20000	20000		16:30	34	1	20000	20000
	17:30	26.1	1	20000	20000		17:30	26.1	1	20000	20000
	18:30	17.8	1	20000	20000		18:30	17.8	1	20000	20000
	19:30	9.5	1	20000	20000		19:30	9.5	1	20000	20000
	20:30	1.5	1	20000	20000		20:30	1.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 01/May	00:30	0	0	20000	0	Tue, 01/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.8	1	20000	20000		06:30	6.8	1	20000	20000
	07:30	15.1	1	20000	20000		07:30	15.1	1	20000	20000
	08:30	23.5	1	20000	20000		08:30	23.5	1	20000	20000
	09:30	31.6	1	20000	20000		09:30	31.6	1	20000	20000
	10:30	38.9	1	20000	20000		10:30	38.9	1	20000	20000
	11:30	44.8	1	20000	20000		11:30	44.8	1	20000	20000
	12:30	48.3	1	20000	20000		12:30	48.3	1	20000	20000
	13:30	48.9	1	20000	20000		13:30	48.9	1	20000	20000
	14:30	46.3	1	20000	20000		14:30	46.3	1	20000	20000
	15:30	41.2	1	20000	20000		15:30	41.2	1	20000	20000
	16:30	34.3	1	20000	20000		16:30	34.3	1	20000	20000
	17:30	26.4	1	20000	20000		17:30	26.4	1	20000	20000
	18:30	18	1	20000	20000		18:30	18	1	20000	20000
	19:30	9.7	1	20000	20000		19:30	9.7	1	20000	20000
	20:30	1.8	1	20000	20000		20:30	1.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 02/May	00:30	0	0	20000	0	Wed, 02/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.1	1	20000	20000		06:30	7.1	1	20000	20000
	07:30	15.3	1	20000	20000		07:30	15.3	1	20000	20000
	08:30	23.7	1	20000	20000		08:30	23.7	1	20000	20000
	09:30	31.8	1	20000	20000		09:30	31.8	1	20000	20000
	10:30	39.2	1	20000	20000		10:30	39.2	1	20000	20000
	11:30	45	1	20000	20000		11:30	45	1	20000	20000
	12:30	48.6	1	20000	20000		12:30	48.6	1	20000	20000
	13:30	49.2	1	20000	20000		13:30	49.2	1	20000	20000
	14:30	46.6	1	20000	20000		14:30	46.6	1	20000	20000
	15:30	41.4	1	20000	20000		15:30	41.4	1	20000	20000
	16:30	34.5	1	20000	20000		16:30	34.5	1	20000	20000
	17:30	26.6	1	20000	20000		17:30	26.6	1	20000	20000
	18:30	18.3	1	20000	20000		18:30	18.3	1	20000	20000
	19:30	9.9	1	20000	20000		19:30	9.9	1	20000	20000
	20:30	2	1	20000	20000		20:30	2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 03/May	00:30	0	0	20000	0	Thu, 03/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.4	1	20000	20000		06:30	7.4	1	20000	20000
	07:30	15.6	1	20000	20000		07:30	15.6	1	20000	20000
	08:30	24	1	20000	20000		08:30	24	1	20000	20000
	09:30	32.1	1	20000	20000		09:30	32.1	1	20000	20000
	10:30	39.5	1	20000	20000		10:30	39.5	1	20000	20000
	11:30	45.3	1	20000	20000		11:30	45.3	1	20000	20000
	12:30	48.9	1	20000	20000		12:30	48.9	1	20000	20000
	13:30	49.5	1	20000	20000		13:30	49.5	1	20000	20000
	14:30	46.9	1	20000	20000		14:30	46.9	1	20000	20000
	15:30	41.7	1	20000	20000		15:30	41.7	1	20000	20000
	16:30	34.8	1	20000	20000		16:30	34.8	1	20000	20000
	17:30	26.8	1	20000	20000		17:30	26.8	1	20000	20000
	18:30	18.5	1	20000	20000		18:30	18.5	1	20000	20000
	19:30	10.2	1	20000	20000		19:30	10.2	1	20000	20000
	20:30	2.2	1	20000	20000		20:30	2.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 04/May	00:30	0	0	20000	0	Fri, 04/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.6	1	20000	20000		06:30	7.6	1	20000	20000
	07:30	15.9	1	20000	20000		07:30	15.9	1	20000	20000
	08:30	24.2	1	20000	20000		08:30	24.2	1	20000	20000
	09:30	32.4	1	20000	20000		09:30	32.4	1	20000	20000
	10:30	39.7	1	20000	20000		10:30	39.7	1	20000	20000
	11:30	45.6	1	20000	20000		11:30	45.6	1	20000	20000
	12:30	49.2	1	20000	20000		12:30	49.2	1	20000	20000
	13:30	49.8	1	20000	20000		13:30	49.8	1	20000	20000
	14:30	47.2	1	20000	20000		14:30	47.2	1	20000	20000
	15:30	41.9	1	20000	20000		15:30	41.9	1	20000	20000
	16:30	35	1	20000	20000		16:30	35	1	20000	20000
	17:30	27.1	1	20000	20000		17:30	27.1	1	20000	20000
	18:30	18.7	1	20000	20000		18:30	18.7	1	20000	20000
	19:30	10.4	1	20000	20000		19:30	10.4	1	20000	20000
	20:30	2.5	1	20000	20000		20:30	2.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 05/May	00:30	0	0	20000	0	Sat, 05/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.2	1	20000	20000		05:30	0.2	1	20000	20000
	06:30	7.9	1	20000	20000		06:30	7.9	1	20000	20000
	07:30	16.1	1	20000	20000		07:30	16.1	1	20000	20000
	08:30	24.5	1	20000	20000		08:30	24.5	1	20000	20000
	09:30	32.6	1	20000	20000		09:30	32.6	1	20000	20000
	10:30	40	1	20000	20000		10:30	40	1	20000	20000
	11:30	45.9	1	20000	20000		11:30	45.9	1	20000	20000
	12:30	49.5	1	20000	20000		12:30	49.5	1	20000	20000
	13:30	50.1	1	20000	20000		13:30	50.1	1	20000	20000
	14:30	47.4	1	20000	20000		14:30	47.4	1	20000	20000
	15:30	42.2	1	20000	20000		15:30	42.2	1	20000	20000
	16:30	35.2	1	20000	20000		16:30	35.2	1	20000	20000
	17:30	27.3	1	20000	20000		17:30	27.3	1	20000	20000
	18:30	18.9	1	20000	20000		18:30	18.9	1	20000	20000
	19:30	10.6	1	20000	20000		19:30	10.6	1	20000	20000
	20:30	2.7	1	20000	20000		20:30	2.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 06/May	00:30	0	0	20000	0	Sun, 06/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0

	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.5	1	20000	20000		05:30	0.5	1	20000	20000
	06:30	8.1	1	20000	20000		06:30	8.1	1	20000	20000
	07:30	16.4	1	20000	20000		07:30	16.4	1	20000	20000
	08:30	24.7	1	20000	20000		08:30	24.7	1	20000	20000
	09:30	32.9	1	20000	20000		09:30	32.9	1	20000	20000
	10:30	40.3	1	20000	20000		10:30	40.3	1	20000	20000
	11:30	46.2	1	20000	20000		11:30	46.2	1	20000	20000
	12:30	49.8	1	20000	20000		12:30	49.8	1	20000	20000
	13:30	50.3	1	20000	20000		13:30	50.3	1	20000	20000
	14:30	47.7	1	20000	20000		14:30	47.7	1	20000	20000
	15:30	42.4	1	20000	20000		15:30	42.4	1	20000	20000
	16:30	35.5	1	20000	20000		16:30	35.5	1	20000	20000
	17:30	27.5	1	20000	20000		17:30	27.5	1	20000	20000
	18:30	19.2	1	20000	20000		18:30	19.2	1	20000	20000
	19:30	10.9	1	20000	20000		19:30	10.9	1	20000	20000
	20:30	3	1	20000	20000		20:30	3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 07/May	00:30	0	0	20000	0	Mon, 07/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.7	1	20000	20000		05:30	0.7	1	20000	20000
	06:30	8.4	1	20000	20000		06:30	8.4	1	20000	20000
	07:30	16.6	1	20000	20000		07:30	16.6	1	20000	20000
	08:30	25	1	20000	20000		08:30	25	1	20000	20000
	09:30	33.1	1	20000	20000		09:30	33.1	1	20000	20000
	10:30	40.5	1	20000	20000		10:30	40.5	1	20000	20000
	11:30	46.5	1	20000	20000		11:30	46.5	1	20000	20000
	12:30	50.1	1	20000	20000		12:30	50.1	1	20000	20000
	13:30	50.6	1	20000	20000		13:30	50.6	1	20000	20000
	14:30	48	1	20000	20000		14:30	48	1	20000	20000
	15:30	42.7	1	20000	20000		15:30	42.7	1	20000	20000
	16:30	35.7	1	20000	20000		16:30	35.7	1	20000	20000
	17:30	27.7	1	20000	20000		17:30	27.7	1	20000	20000
	18:30	19.4	1	20000	20000		18:30	19.4	1	20000	20000
	19:30	11.1	1	20000	20000		19:30	11.1	1	20000	20000
	20:30	3.2	1	20000	20000		20:30	3.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 08/May	00:30	0	0	20000	0	Tue, 08/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1	1	20000	20000		05:30	1	1	20000	20000
	06:30	8.6	1	20000	20000		06:30	8.6	1	20000	20000
	07:30	16.8	1	20000	20000		07:30	16.8	1	20000	20000
	08:30	25.2	1	20000	20000		08:30	25.2	1	20000	20000
	09:30	33.4	1	20000	20000		09:30	33.4	1	20000	20000
	10:30	40.8	1	20000	20000		10:30	40.8	1	20000	20000
	11:30	46.7	1	20000	20000		11:30	46.7	1	20000	20000
	12:30	50.4	1	20000	20000		12:30	50.4	1	20000	20000
	13:30	50.9	1	20000	20000		13:30	50.9	1	20000	20000
	14:30	48.2	1	20000	20000		14:30	48.2	1	20000	20000
	15:30	42.9	1	20000	20000		15:30	42.9	1	20000	20000
	16:30	35.9	1	20000	20000		16:30	35.9	1	20000	20000
	17:30	28	1	20000	20000		17:30	28	1	20000	20000
	18:30	19.6	1	20000	20000		18:30	19.6	1	20000	20000
	19:30	11.3	1	20000	20000		19:30	11.3	1	20000	20000
	20:30	3.4	1	20000	20000		20:30	3.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 09/May	00:30	0	0	20000	0	Wed, 09/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.2	1	20000	20000		05:30	1.2	1	20000	20000
	06:30	8.9	1	20000	20000		06:30	8.9	1	20000	20000
	07:30	17.1	1	20000	20000		07:30	17.1	1	20000	20000
	08:30	25.4	1	20000	20000		08:30	25.4	1	20000	20000
	09:30	33.6	1	20000	20000		09:30	33.6	1	20000	20000
	10:30	41	1	20000	20000		10:30	41	1	20000	20000
	11:30	47	1	20000	20000		11:30	47	1	20000	20000
	12:30	50.6	1	20000	20000		12:30	50.6	1	20000	20000
	13:30	51.2	1	20000	20000		13:30	51.2	1	20000	20000
	14:30	48.5	1	20000	20000		14:30	48.5	1	20000	20000
	15:30	43.2	1	20000	20000		15:30	43.2	1	20000	20000
	16:30	36.1	1	20000	20000		16:30	36.1	1	20000	20000
	17:30	28.2	1	20000	20000		17:30	28.2	1	20000	20000
	18:30	19.8	1	20000	20000		18:30	19.8	1	20000	20000
	19:30	11.5	1	20000	20000		19:30	11.5	1	20000	20000
	20:30	3.6	1	20000	20000		20:30	3.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 10/May	00:30	0	0	20000	0	Thu, 10/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.4	1	20000	20000		05:30	1.4	1	20000	20000
	06:30	9.1	1	20000	20000		06:30	9.1	1	20000	20000
	07:30	17.3	1	20000	20000		07:30	17.3	1	20000	20000
	08:30	25.7	1	20000	20000		08:30	25.7	1	20000	20000
	09:30	33.8	1	20000	20000		09:30	33.8	1	20000	20000
	10:30	41.3	1	20000	20000		10:30	41.3	1	20000	20000
	11:30	47.2	1	20000	20000		11:30	47.2	1	20000	20000
	12:30	50.9	1	20000	20000		12:30	50.9	1	20000	20000
	13:30	51.4	1	20000	20000		13:30	51.4	1	20000	20000
	14:30	48.7	1	20000	20000		14:30	48.7	1	20000	20000
	15:30	43.4	1	20000	20000		15:30	43.4	1	20000	20000
	16:30	36.4	1	20000	20000		16:30	36.4	1	20000	20000
	17:30	28.4	1	20000	20000		17:30	28.4	1	20000	20000
	18:30	20	1	20000	20000		18:30	20	1	20000	20000
	19:30	11.7	1	20000	20000		19:30	11.7	1	20000	20000
	20:30	3.9	1	20000	20000		20:30	3.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 11/May	00:30	0	0	20000	0	Fri, 11/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.7	1	20000	20000		05:30	1.7	1	20000	20000
	06:30	9.3	1	20000	20000		06:30	9.3	1	20000	20000
	07:30	17.5	1	20000	20000		07:30	17.5	1	20000	20000
	08:30	25.9	1	20000	20000		08:30	25.9	1	20000	20000
	09:30	34.1	1	20000	20000		09:30	34.1	1	20000	20000
	10:30	41.5	1	20000	20000		10:30	41.5	1	20000	20000
	11:30	47.5	1	20000	20000		11:30	47.5	1	20000	20000
	12:30	51.2	1	20000	20000		12:30	51.2	1	20000	20000
	13:30	51.7	1	20000	20000		13:30	51.7	1	20000	20000
	14:30	49	1	20000	20000		14:30	49	1	20000	20000
	15:30	43.6	1	20000	20000		15:30	43.6	1	20000	20000
	16:30	36.6	1	20000	20000		16:30	36.6	1	20000	20000
	17:30	28.6	1	20000	20000		17:30	28.6	1	20000	20000
	18:30	20.2	1	20000	20000		18:30	20.2	1	20000	20000
	19:30	11.9	1	20000	20000		19:30	11.9	1	20000	20000

	20:30	4.1	1	20000	20000		20:30	4.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 12/May	00:30	0	0	20000	0	Sat, 12/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.9	1	20000	20000		05:30	1.9	1	20000	20000
	06:30	9.5	1	20000	20000		06:30	9.5	1	20000	20000
	07:30	17.7	1	20000	20000		07:30	17.7	1	20000	20000
	08:30	26.1	1	20000	20000		08:30	26.1	1	20000	20000
	09:30	34.3	1	20000	20000		09:30	34.3	1	20000	20000
	10:30	41.7	1	20000	20000		10:30	41.7	1	20000	20000
	11:30	47.7	1	20000	20000		11:30	47.7	1	20000	20000
	12:30	51.4	1	20000	20000		12:30	51.4	1	20000	20000
	13:30	52	1	20000	20000		13:30	52	1	20000	20000
	14:30	49.2	1	20000	20000		14:30	49.2	1	20000	20000
	15:30	43.9	1	20000	20000		15:30	43.9	1	20000	20000
	16:30	36.8	1	20000	20000		16:30	36.8	1	20000	20000
	17:30	28.8	1	20000	20000		17:30	28.8	1	20000	20000
	18:30	20.4	1	20000	20000		18:30	20.4	1	20000	20000
	19:30	12.1	1	20000	20000		19:30	12.1	1	20000	20000
	20:30	4.3	1	20000	20000		20:30	4.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 13/May	00:30	0	0	20000	0	Sun, 13/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.1	1	20000	20000		05:30	2.1	1	20000	20000
	06:30	9.7	1	20000	20000		06:30	9.7	1	20000	20000
	07:30	17.9	1	20000	20000		07:30	17.9	1	20000	20000
	08:30	26.3	1	20000	20000		08:30	26.3	1	20000	20000
	09:30	34.5	1	20000	20000		09:30	34.5	1	20000	20000
	10:30	41.9	1	20000	20000		10:30	41.9	1	20000	20000
	11:30	48	1	20000	20000		11:30	48	1	20000	20000
	12:30	51.7	1	20000	20000		12:30	51.7	1	20000	20000
	13:30	52.2	1	20000	20000		13:30	52.2	1	20000	20000
	14:30	49.5	1	20000	20000		14:30	49.5	1	20000	20000
	15:30	44.1	1	20000	20000		15:30	44.1	1	20000	20000
	16:30	37	1	20000	20000		16:30	37	1	20000	20000
	17:30	29	1	20000	20000		17:30	29	1	20000	20000
	18:30	20.6	1	20000	20000		18:30	20.6	1	20000	20000
	19:30	12.4	1	20000	20000		19:30	12.4	1	20000	20000
	20:30	4.5	1	20000	20000		20:30	4.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 14/May	00:30	0	0	20000	0	Mon, 14/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.3	1	20000	20000		05:30	2.3	1	20000	20000
	06:30	9.9	1	20000	20000		06:30	9.9	1	20000	20000
	07:30	18.1	1	20000	20000		07:30	18.1	1	20000	20000
	08:30	26.5	1	20000	20000		08:30	26.5	1	20000	20000
	09:30	34.7	1	20000	20000		09:30	34.7	1	20000	20000
	10:30	42.2	1	20000	20000		10:30	42.2	1	20000	20000
	11:30	48.2	1	20000	20000		11:30	48.2	1	20000	20000
	12:30	51.9	1	20000	20000		12:30	51.9	1	20000	20000
	13:30	52.5	1	20000	20000		13:30	52.5	1	20000	20000
	14:30	49.7	1	20000	20000		14:30	49.7	1	20000	20000
	15:30	44.3	1	20000	20000		15:30	44.3	1	20000	20000
	16:30	37.2	1	20000	20000		16:30	37.2	1	20000	20000
	17:30	29.2	1	20000	20000		17:30	29.2	1	20000	20000
	18:30	20.8	1	20000	20000		18:30	20.8	1	20000	20000
	19:30	12.6	1	20000	20000		19:30	12.6	1	20000	20000
	20:30	4.7	1	20000	20000		20:30	4.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 15/May	00:30	0	0	20000	0	Tue, 15/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.5	1	20000	20000		05:30	2.5	1	20000	20000
	06:30	10.1	1	20000	20000		06:30	10.1	1	20000	20000
	07:30	18.3	1	20000	20000		07:30	18.3	1	20000	20000
	08:30	26.7	1	20000	20000		08:30	26.7	1	20000	20000
	09:30	34.9	1	20000	20000		09:30	34.9	1	20000	20000
	10:30	42.4	1	20000	20000		10:30	42.4	1	20000	20000
	11:30	48.4	1	20000	20000		11:30	48.4	1	20000	20000
	12:30	52.1	1	20000	20000		12:30	52.1	1	20000	20000
	13:30	52.7	1	20000	20000		13:30	52.7	1	20000	20000
	14:30	49.9	1	20000	20000		14:30	49.9	1	20000	20000
	15:30	44.5	1	20000	20000		15:30	44.5	1	20000	20000
	16:30	37.4	1	20000	20000		16:30	37.4	1	20000	20000
	17:30	29.4	1	20000	20000		17:30	29.4	1	20000	20000
	18:30	21	1	20000	20000		18:30	21	1	20000	20000
	19:30	12.8	1	20000	20000		19:30	12.8	1	20000	20000
	20:30	4.9	1	20000	20000		20:30	4.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 16/May	00:30	0	0	20000	0	Wed, 16/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.7	1	20000	20000		05:30	2.7	1	20000	20000
	06:30	10.3	1	20000	20000		06:30	10.3	1	20000	20000
	07:30	18.5	1	20000	20000		07:30	18.5	1	20000	20000
	08:30	26.9	1	20000	20000		08:30	26.9	1	20000	20000
	09:30	35.1	1	20000	20000		09:30	35.1	1	20000	20000
	10:30	42.6	1	20000	20000		10:30	42.6	1	20000	20000
	11:30	48.6	1	20000	20000		11:30	48.6	1	20000	20000
	12:30	52.4	1	20000	20000		12:30	52.4	1	20000	20000
	13:30	52.9	1	20000	20000		13:30	52.9	1	20000	20000
	14:30	50.2	1	20000	20000		14:30	50.2	1	20000	20000
	15:30	44.7	1	20000	20000		15:30	44.7	1	20000	20000
	16:30	37.6	1	20000	20000		16:30	37.6	1	20000	20000
	17:30	29.6	1	20000	20000		17:30	29.6	1	20000	20000
	18:30	21.2	1	20000	20000		18:30	21.2	1	20000	20000
	19:30	13	1	20000	20000		19:30	13	1	20000	20000
	20:30	5.1	1	20000	20000		20:30	5.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 17/May	00:30	0	0	20000	0	Thu, 17/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.9	1	20000	20000		05:30	2.9	1	20000	20000
	06:30	10.5	1	20000	20000		06:30	10.5	1	20000	20000
	07:30	18.7	1	20000	20000		07:30	18.7	1	20000	20000
	08:30	27.1	1	20000	20000		08:30	27.1	1	20000	20000
	09:30	35.3	1	20000	20000		09:30	35.3	1	20000	20000
	10:30	42.8	1	20000	20000		10:30	42.8	1	20000	20000
	11:30	48.9	1	20000	20000		11:30	48.9	1	20000	20000
	12:30	52.6	1	20000	20000		12:30	52.6	1	20000	20000

	13:30	53.2	1	20000	20000		13:30	53.2	1	20000	20000
	14:30	50.4	1	20000	20000		14:30	50.4	1	20000	20000
	15:30	45	1	20000	20000		15:30	45	1	20000	20000
	16:30	37.8	1	20000	20000		16:30	37.8	1	20000	20000
	17:30	29.8	1	20000	20000		17:30	29.8	1	20000	20000
	18:30	21.4	1	20000	20000		18:30	21.4	1	20000	20000
	19:30	13.1	1	20000	20000		19:30	13.1	1	20000	20000
	20:30	5.3	1	20000	20000		20:30	5.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 18/May	00:30	0	0	20000	0	Fri, 18/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.1	1	20000	20000		05:30	3.1	1	20000	20000
	06:30	10.7	1	20000	20000		06:30	10.7	1	20000	20000
	07:30	18.9	1	20000	20000		07:30	18.9	1	20000	20000
	08:30	27.3	1	20000	20000		08:30	27.3	1	20000	20000
	09:30	35.5	1	20000	20000		09:30	35.5	1	20000	20000
	10:30	43	1	20000	20000		10:30	43	1	20000	20000
	11:30	49.1	1	20000	20000		11:30	49.1	1	20000	20000
	12:30	52.8	1	20000	20000		12:30	52.8	1	20000	20000
	13:30	53.4	1	20000	20000		13:30	53.4	1	20000	20000
	14:30	50.6	1	20000	20000		14:30	50.6	1	20000	20000
	15:30	45.2	1	20000	20000		15:30	45.2	1	20000	20000
	16:30	38	1	20000	20000		16:30	38	1	20000	20000
	17:30	30	1	20000	20000		17:30	30	1	20000	20000
	18:30	21.6	1	20000	20000		18:30	21.6	1	20000	20000
	19:30	13.3	1	20000	20000		19:30	13.3	1	20000	20000
	20:30	5.5	1	20000	20000		20:30	5.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 19/May	00:30	0	0	20000	0	Sat, 19/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.3	1	20000	20000		05:30	3.3	1	20000	20000
	06:30	10.9	1	20000	20000		06:30	10.9	1	20000	20000
	07:30	19	1	20000	20000		07:30	19	1	20000	20000
	08:30	27.4	1	20000	20000		08:30	27.4	1	20000	20000
	09:30	35.6	1	20000	20000		09:30	35.6	1	20000	20000
	10:30	43.2	1	20000	20000		10:30	43.2	1	20000	20000
	11:30	49.3	1	20000	20000		11:30	49.3	1	20000	20000
	12:30	53	1	20000	20000		12:30	53	1	20000	20000
	13:30	53.6	1	20000	20000		13:30	53.6	1	20000	20000
	14:30	50.8	1	20000	20000		14:30	50.8	1	20000	20000
	15:30	45.4	1	20000	20000		15:30	45.4	1	20000	20000
	16:30	38.2	1	20000	20000		16:30	38.2	1	20000	20000
	17:30	30.2	1	20000	20000		17:30	30.2	1	20000	20000
	18:30	21.8	1	20000	20000		18:30	21.8	1	20000	20000
	19:30	13.5	1	20000	20000		19:30	13.5	1	20000	20000
	20:30	5.7	1	20000	20000		20:30	5.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 20/May	00:30	0	0	20000	0	Sun, 20/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.5	1	20000	20000		05:30	3.5	1	20000	20000
	06:30	11.1	1	20000	20000		06:30	11.1	1	20000	20000
	07:30	19.2	1	20000	20000		07:30	19.2	1	20000	20000
	08:30	27.6	1	20000	20000		08:30	27.6	1	20000	20000
	09:30	35.8	1	20000	20000		09:30	35.8	1	20000	20000
	10:30	43.3	1	20000	20000		10:30	43.3	1	20000	20000
	11:30	49.5	1	20000	20000		11:30	49.5	1	20000	20000
	12:30	53.3	1	20000	20000		12:30	53.3	1	20000	20000
	13:30	53.8	1	20000	20000		13:30	53.8	1	20000	20000
	14:30	51	1	20000	20000		14:30	51	1	20000	20000
	15:30	45.6	1	20000	20000		15:30	45.6	1	20000	20000
	16:30	38.4	1	20000	20000		16:30	38.4	1	20000	20000
	17:30	30.3	1	20000	20000		17:30	30.3	1	20000	20000
	18:30	22	1	20000	20000		18:30	22	1	20000	20000
	19:30	13.7	1	20000	20000		19:30	13.7	1	20000	20000
	20:30	5.9	1	20000	20000		20:30	5.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 21/May	00:30	0	0	20000	0	Mon, 21/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.7	1	20000	20000		05:30	3.7	1	20000	20000
	06:30	11.2	1	20000	20000		06:30	11.2	1	20000	20000
	07:30	19.4	1	20000	20000		07:30	19.4	1	20000	20000
	08:30	27.8	1	20000	20000		08:30	27.8	1	20000	20000
	09:30	36	1	20000	20000		09:30	36	1	20000	20000
	10:30	43.5	1	20000	20000		10:30	43.5	1	20000	20000
	11:30	49.7	1	20000	20000		11:30	49.7	1	20000	20000
	12:30	53.5	1	20000	20000		12:30	53.5	1	20000	20000
	13:30	54	1	20000	20000		13:30	54	1	20000	20000
	14:30	51.2	1	20000	20000		14:30	51.2	1	20000	20000
	15:30	45.7	1	20000	20000		15:30	45.7	1	20000	20000
	16:30	38.6	1	20000	20000		16:30	38.6	1	20000	20000
	17:30	30.5	1	20000	20000		17:30	30.5	1	20000	20000
	18:30	22.1	1	20000	20000		18:30	22.1	1	20000	20000
	19:30	13.9	1	20000	20000		19:30	13.9	1	20000	20000
	20:30	6.1	1	20000	20000		20:30	6.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 22/May	00:30	0	0	20000	0	Tue, 22/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.7	1	20000	20000		05:30	3.7	1	20000	20000
	06:30	11.3	1	20000	20000		06:30	11.3	1	20000	20000
	07:30	19.4	1	20000	20000		07:30	19.4	1	20000	20000
	08:30	27.8	1	20000	20000		08:30	27.8	1	20000	20000
	09:30	36	1	20000	20000		09:30	36	1	20000	20000
	10:30	43.6	1	20000	20000		10:30	43.6	1	20000	20000
	11:30	49.7	1	20000	20000		11:30	49.7	1	20000	20000
	12:30	53.5	1	20000	20000		12:30	53.5	1	20000	20000
	13:30	54.1	1	20000	20000		13:30	54.1	1	20000	20000
	14:30	51.3	1	20000	20000		14:30	51.3	1	20000	20000
	15:30	45.8	1	20000	20000		15:30	45.8	1	20000	20000
	16:30	38.6	1	20000	20000		16:30	38.6	1	20000	20000
	17:30	30.6	1	20000	20000		17:30	30.6	1	20000	20000
	18:30	22.2	1	20000	20000		18:30	22.2	1	20000	20000
	19:30	13.9	1	20000	20000		19:30	13.9	1	20000	20000
	20:30	6.1	1	20000	20000		20:30	6.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 23/May	00:30	0	0	20000	0	Wed, 23/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.9	1	20000	20000		05:30	3.9	1	20000	20000

	06:30	11.4	1	20000	20000		06:30	11.4	1	20000	20000
	07:30	19.6	1	20000	20000		07:30	19.6	1	20000	20000
	08:30	27.9	1	20000	20000		08:30	27.9	1	20000	20000
	09:30	36.2	1	20000	20000		09:30	36.2	1	20000	20000
	10:30	43.7	1	20000	20000		10:30	43.7	1	20000	20000
	11:30	49.9	1	20000	20000		11:30	49.9	1	20000	20000
	12:30	53.7	1	20000	20000		12:30	53.7	1	20000	20000
	13:30	54.3	1	20000	20000		13:30	54.3	1	20000	20000
	14:30	51.5	1	20000	20000		14:30	51.5	1	20000	20000
	15:30	46	1	20000	20000		15:30	46	1	20000	20000
	16:30	38.8	1	20000	20000		16:30	38.8	1	20000	20000
	17:30	30.7	1	20000	20000		17:30	30.7	1	20000	20000
	18:30	22.4	1	20000	20000		18:30	22.4	1	20000	20000
	19:30	14.1	1	20000	20000		19:30	14.1	1	20000	20000
	20:30	6.3	1	20000	20000		20:30	6.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 24/May	00:30	0	0	20000	0	Thu, 24/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4	1	20000	20000		05:30	4	1	20000	20000
	06:30	11.6	1	20000	20000		06:30	11.6	1	20000	20000
	07:30	19.7	1	20000	20000		07:30	19.7	1	20000	20000
	08:30	28.1	1	20000	20000		08:30	28.1	1	20000	20000
	09:30	36.3	1	20000	20000		09:30	36.3	1	20000	20000
	10:30	43.9	1	20000	20000		10:30	43.9	1	20000	20000
	11:30	50.1	1	20000	20000		11:30	50.1	1	20000	20000
	12:30	53.9	1	20000	20000		12:30	53.9	1	20000	20000
	13:30	54.5	1	20000	20000		13:30	54.5	1	20000	20000
	14:30	51.7	1	20000	20000		14:30	51.7	1	20000	20000
	15:30	46.2	1	20000	20000		15:30	46.2	1	20000	20000
	16:30	39	1	20000	20000		16:30	39	1	20000	20000
	17:30	30.9	1	20000	20000		17:30	30.9	1	20000	20000
	18:30	22.5	1	20000	20000		18:30	22.5	1	20000	20000
	19:30	14.3	1	20000	20000		19:30	14.3	1	20000	20000
	20:30	6.5	1	20000	20000		20:30	6.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 25/May	00:30	0	0	20000	0	Fri, 25/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.2	1	20000	20000		05:30	4.2	1	20000	20000
	06:30	11.7	1	20000	20000		06:30	11.7	1	20000	20000
	07:30	19.8	1	20000	20000		07:30	19.8	1	20000	20000
	08:30	28.2	1	20000	20000		08:30	28.2	1	20000	20000
	09:30	36.5	1	20000	20000		09:30	36.5	1	20000	20000
	10:30	44	1	20000	20000		10:30	44	1	20000	20000
	11:30	50.2	1	20000	20000		11:30	50.2	1	20000	20000
	12:30	54.1	1	20000	20000		12:30	54.1	1	20000	20000
	13:30	54.7	1	20000	20000		13:30	54.7	1	20000	20000
	14:30	51.9	1	20000	20000		14:30	51.9	1	20000	20000
	15:30	46.3	1	20000	20000		15:30	46.3	1	20000	20000
	16:30	39.1	1	20000	20000		16:30	39.1	1	20000	20000
	17:30	31.1	1	20000	20000		17:30	31.1	1	20000	20000
	18:30	22.7	1	20000	20000		18:30	22.7	1	20000	20000
	19:30	14.4	1	20000	20000		19:30	14.4	1	20000	20000
	20:30	6.7	1	20000	20000		20:30	6.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 26/May	00:30	0	0	20000	0	Sat, 26/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.3	1	20000	20000		05:30	4.3	1	20000	20000
	06:30	11.8	1	20000	20000		06:30	11.8	1	20000	20000
	07:30	20	1	20000	20000		07:30	20	1	20000	20000
	08:30	28.4	1	20000	20000		08:30	28.4	1	20000	20000
	09:30	36.6	1	20000	20000		09:30	36.6	1	20000	20000
	10:30	44.2	1	20000	20000		10:30	44.2	1	20000	20000
	11:30	50.4	1	20000	20000		11:30	50.4	1	20000	20000
	12:30	54.2	1	20000	20000		12:30	54.2	1	20000	20000
	13:30	54.9	1	20000	20000		13:30	54.9	1	20000	20000
	14:30	52	1	20000	20000		14:30	52	1	20000	20000
	15:30	46.5	1	20000	20000		15:30	46.5	1	20000	20000
	16:30	39.3	1	20000	20000		16:30	39.3	1	20000	20000
	17:30	31.2	1	20000	20000		17:30	31.2	1	20000	20000
	18:30	22.9	1	20000	20000		18:30	22.9	1	20000	20000
	19:30	14.6	1	20000	20000		19:30	14.6	1	20000	20000
	20:30	6.8	1	20000	20000		20:30	6.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 27/May	00:30	0	0	20000	0	Sun, 27/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.5	1	20000	20000		05:30	4.5	1	20000	20000
	06:30	12	1	20000	20000		06:30	12	1	20000	20000
	07:30	20.1	1	20000	20000		07:30	20.1	1	20000	20000
	08:30	28.5	1	20000	20000		08:30	28.5	1	20000	20000
	09:30	36.7	1	20000	20000		09:30	36.7	1	20000	20000
	10:30	44.3	1	20000	20000		10:30	44.3	1	20000	20000
	11:30	50.5	1	20000	20000		11:30	50.5	1	20000	20000
	12:30	54.4	1	20000	20000		12:30	54.4	1	20000	20000
	13:30	55	1	20000	20000		13:30	55	1	20000	20000
	14:30	52.2	1	20000	20000		14:30	52.2	1	20000	20000
	15:30	46.7	1	20000	20000		15:30	46.7	1	20000	20000
	16:30	39.5	1	20000	20000		16:30	39.5	1	20000	20000
	17:30	31.4	1	20000	20000		17:30	31.4	1	20000	20000
	18:30	23	1	20000	20000		18:30	23	1	20000	20000
	19:30	14.8	1	20000	20000		19:30	14.8	1	20000	20000
	20:30	7	1	20000	20000		20:30	7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 28/May	00:30	0	0	20000	0	Mon, 28/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.6	1	20000	20000		05:30	4.6	1	20000	20000
	06:30	12.1	1	20000	20000		06:30	12.1	1	20000	20000
	07:30	20.2	1	20000	20000		07:30	20.2	1	20000	20000
	08:30	28.6	1	20000	20000		08:30	28.6	1	20000	20000
	09:30	36.8	1	20000	20000		09:30	36.8	1	20000	20000
	10:30	44.4	1	20000	20000		10:30	44.4	1	20000	20000
	11:30	50.7	1	20000	20000		11:30	50.7	1	20000	20000
	12:30	54.6	1	20000	20000		12:30	54.6	1	20000	20000
	13:30	55.2	1	20000	20000		13:30	55.2	1	20000	20000
	14:30	52.4	1	20000	20000		14:30	52.4	1	20000	20000
	15:30	46.8	1	20000	20000		15:30	46.8	1	20000	20000
	16:30	39.6	1	20000	20000		16:30	39.6	1	20000	20000
	17:30	31.5	1	20000	20000		17:30	31.5	1	20000	20000
	18:30	23.2	1	20000	20000		18:30	23.2	1	20000	20000
	19:30	14.9	1	20000	20000		19:30	14.9	1	20000	20000
	20:30	7.1	1	20000	20000		20:30	7.1	1	20000	20000
	21:30	0.2	1	20000	20000		21:30	0.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0

	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 29/May	00:30	0	0	20000	0	Tue, 29/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.7	1	20000	20000		05:30	4.7	1	20000	20000
	06:30	12.2	1	20000	20000		06:30	12.2	1	20000	20000
	07:30	20.3	1	20000	20000		07:30	20.3	1	20000	20000
	08:30	28.7	1	20000	20000		08:30	28.7	1	20000	20000
	09:30	37	1	20000	20000		09:30	37	1	20000	20000
	10:30	44.6	1	20000	20000		10:30	44.6	1	20000	20000
	11:30	50.8	1	20000	20000		11:30	50.8	1	20000	20000
	12:30	54.7	1	20000	20000		12:30	54.7	1	20000	20000
	13:30	55.4	1	20000	20000		13:30	55.4	1	20000	20000
	14:30	52.5	1	20000	20000		14:30	52.5	1	20000	20000
	15:30	47	1	20000	20000		15:30	47	1	20000	20000
	16:30	39.8	1	20000	20000		16:30	39.8	1	20000	20000
	17:30	31.7	1	20000	20000		17:30	31.7	1	20000	20000
	18:30	23.3	1	20000	20000		18:30	23.3	1	20000	20000
	19:30	15.1	1	20000	20000		19:30	15.1	1	20000	20000
	20:30	7.3	1	20000	20000		20:30	7.3	1	20000	20000
	21:30	0.4	1	20000	20000		21:30	0.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 30/May	00:30	0	0	20000	0	Wed, 30/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.8	1	20000	20000		05:30	4.8	1	20000	20000
	06:30	12.3	1	20000	20000		06:30	12.3	1	20000	20000
	07:30	20.4	1	20000	20000		07:30	20.4	1	20000	20000
	08:30	28.8	1	20000	20000		08:30	28.8	1	20000	20000
	09:30	37.1	1	20000	20000		09:30	37.1	1	20000	20000
	10:30	44.7	1	20000	20000		10:30	44.7	1	20000	20000
	11:30	51	1	20000	20000		11:30	51	1	20000	20000
	12:30	54.9	1	20000	20000		12:30	54.9	1	20000	20000
	13:30	55.5	1	20000	20000		13:30	55.5	1	20000	20000
	14:30	52.7	1	20000	20000		14:30	52.7	1	20000	20000
	15:30	47.2	1	20000	20000		15:30	47.2	1	20000	20000
	16:30	39.9	1	20000	20000		16:30	39.9	1	20000	20000
	17:30	31.8	1	20000	20000		17:30	31.8	1	20000	20000
	18:30	23.5	1	20000	20000		18:30	23.5	1	20000	20000
	19:30	15.2	1	20000	20000		19:30	15.2	1	20000	20000
	20:30	7.4	1	20000	20000		20:30	7.4	1	20000	20000
	21:30	0.5	1	20000	20000		21:30	0.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 31/May	00:30	0	0	20000	0	Thu, 31/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.9	1	20000	20000		05:30	4.9	1	20000	20000
	06:30	12.4	1	20000	20000		06:30	12.4	1	20000	20000
	07:30	20.5	1	20000	20000		07:30	20.5	1	20000	20000
	08:30	28.9	1	20000	20000		08:30	28.9	1	20000	20000
	09:30	37.2	1	20000	20000		09:30	37.2	1	20000	20000
	10:30	44.8	1	20000	20000		10:30	44.8	1	20000	20000
	11:30	51.1	1	20000	20000		11:30	51.1	1	20000	20000
	12:30	55	1	20000	20000		12:30	55	1	20000	20000
	13:30	55.7	1	20000	20000		13:30	55.7	1	20000	20000
	14:30	52.9	1	20000	20000		14:30	52.9	1	20000	20000
	15:30	47.3	1	20000	20000		15:30	47.3	1	20000	20000
	16:30	40.1	1	20000	20000		16:30	40.1	1	20000	20000
	17:30	32	1	20000	20000		17:30	32	1	20000	20000
	18:30	23.6	1	20000	20000		18:30	23.6	1	20000	20000
	19:30	15.4	1	20000	20000		19:30	15.4	1	20000	20000
	20:30	7.6	1	20000	20000		20:30	7.6	1	20000	20000
	21:30	0.7	1	20000	20000		21:30	0.7	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 01/Jun	00:30	0	0	20000	0	Fri, 01/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5	1	20000	20000		05:30	5	1	20000	20000
	06:30	12.5	1	20000	20000		06:30	12.5	1	20000	20000
	07:30	20.6	1	20000	20000		07:30	20.6	1	20000	20000
	08:30	29	1	20000	20000		08:30	29	1	20000	20000
	09:30	37.3	1	20000	20000		09:30	37.3	1	20000	20000
	10:30	44.9	1	20000	20000		10:30	44.9	1	20000	20000
	11:30	51.2	1	20000	20000		11:30	51.2	1	20000	20000
	12:30	55.2	1	20000	20000		12:30	55.2	1	20000	20000
	13:30	55.8	1	20000	20000		13:30	55.8	1	20000	20000
	14:30	53	1	20000	20000		14:30	53	1	20000	20000
	15:30	47.4	1	20000	20000		15:30	47.4	1	20000	20000
	16:30	40.2	1	20000	20000		16:30	40.2	1	20000	20000
	17:30	32.1	1	20000	20000		17:30	32.1	1	20000	20000
	18:30	23.7	1	20000	20000		18:30	23.7	1	20000	20000
	19:30	15.5	1	20000	20000		19:30	15.5	1	20000	20000
	20:30	7.7	1	20000	20000		20:30	7.7	1	20000	20000
	21:30	0.8	1	20000	20000		21:30	0.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 02/Jun	00:30	0	0	20000	0	Sat, 02/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.1	1	20000	20000		05:30	5.1	1	20000	20000
	06:30	12.6	1	20000	20000		06:30	12.6	1	20000	20000
	07:30	20.7	1	20000	20000		07:30	20.7	1	20000	20000
	08:30	29.1	1	20000	20000		08:30	29.1	1	20000	20000
	09:30	37.4	1	20000	20000		09:30	37.4	1	20000	20000
	10:30	45	1	20000	20000		10:30	45	1	20000	20000
	11:30	51.3	1	20000	20000		11:30	51.3	1	20000	20000
	12:30	55.3	1	20000	20000		12:30	55.3	1	20000	20000
	13:30	56	1	20000	20000		13:30	56	1	20000	20000
	14:30	53.1	1	20000	20000		14:30	53.1	1	20000	20000
	15:30	47.6	1	20000	20000		15:30	47.6	1	20000	20000
	16:30	40.3	1	20000	20000		16:30	40.3	1	20000	20000
	17:30	32.2	1	20000	20000		17:30	32.2	1	20000	20000
	18:30	23.9	1	20000	20000		18:30	23.9	1	20000	20000
	19:30	15.6	1	20000	20000		19:30	15.6	1	20000	20000
	20:30	7.9	1	20000	20000		20:30	7.9	1	20000	20000
	21:30	0.9	1	20000	20000		21:30	0.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 03/Jun	00:30	0	0	20000	0	Sun, 03/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.2	1	20000	20000		05:30	5.2	1	20000	20000
	06:30	12.7	1	20000	20000		06:30	12.7	1	20000	20000
	07:30	20.8	1	20000	20000		07:30	20.8	1	20000	20000
	08:30	29.2	1	20000	20000		08:30	29.2	1	20000	20000
	09:30	37.4	1	20000	20000		09:30	37.4	1	20000	20000
	10:30	45.1	1	20000	20000		10:30	45.1	1	20000	20000
	11:30	51.4	1	20000	20000		11:30	51.4	1	20000	20000
	12:30	55.4	1	20000	20000		12:30	55.4	1	20000	20000
	13:30	56.1	1	20000	20000		13:30	56.1	1	20000	20000
	14:30	53.3	1	20000	20000		14:30	53.3	1	20000	20000
	15:30	47.7	1	20000	20000		15:30	47.7	1	20000	20000

	16:30	40.5	1	20000	20000		16:30	40.5	1	20000	20000
	17:30	32.4	1	20000	20000		17:30	32.4	1	20000	20000
	18:30	24	1	20000	20000		18:30	24	1	20000	20000
	19:30	15.7	1	20000	20000		19:30	15.7	1	20000	20000
	20:30	8	1	20000	20000		20:30	8	1	20000	20000
	21:30	1.1	1	20000	20000		21:30	1.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 04/Jun	00:30	0	0	20000	0	Mon, 04/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.3	1	20000	20000		05:30	5.3	1	20000	20000
	06:30	12.8	1	20000	20000		06:30	12.8	1	20000	20000
	07:30	20.9	1	20000	20000		07:30	20.9	1	20000	20000
	08:30	29.3	1	20000	20000		08:30	29.3	1	20000	20000
	09:30	37.5	1	20000	20000		09:30	37.5	1	20000	20000
	10:30	45.2	1	20000	20000		10:30	45.2	1	20000	20000
	11:30	51.5	1	20000	20000		11:30	51.5	1	20000	20000
	12:30	55.5	1	20000	20000		12:30	55.5	1	20000	20000
	13:30	56.2	1	20000	20000		13:30	56.2	1	20000	20000
	14:30	53.4	1	20000	20000		14:30	53.4	1	20000	20000
	15:30	47.8	1	20000	20000		15:30	47.8	1	20000	20000
	16:30	40.6	1	20000	20000		16:30	40.6	1	20000	20000
	17:30	32.5	1	20000	20000		17:30	32.5	1	20000	20000
	18:30	24.1	1	20000	20000		18:30	24.1	1	20000	20000
	19:30	15.9	1	20000	20000		19:30	15.9	1	20000	20000
	20:30	8.1	1	20000	20000		20:30	8.1	1	20000	20000
	21:30	1.2	1	20000	20000		21:30	1.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 05/Jun	00:30	0	0	20000	0	Tue, 05/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.4	1	20000	20000		05:30	5.4	1	20000	20000
	06:30	12.9	1	20000	20000		06:30	12.9	1	20000	20000
	07:30	21	1	20000	20000		07:30	21	1	20000	20000
	08:30	29.3	1	20000	20000		08:30	29.3	1	20000	20000
	09:30	37.6	1	20000	20000		09:30	37.6	1	20000	20000
	10:30	45.3	1	20000	20000		10:30	45.3	1	20000	20000
	11:30	51.6	1	20000	20000		11:30	51.6	1	20000	20000
	12:30	55.6	1	20000	20000		12:30	55.6	1	20000	20000
	13:30	56.3	1	20000	20000		13:30	56.3	1	20000	20000
	14:30	53.5	1	20000	20000		14:30	53.5	1	20000	20000
	15:30	48	1	20000	20000		15:30	48	1	20000	20000
	16:30	40.7	1	20000	20000		16:30	40.7	1	20000	20000
	17:30	32.6	1	20000	20000		17:30	32.6	1	20000	20000
	18:30	24.2	1	20000	20000		18:30	24.2	1	20000	20000
	19:30	16	1	20000	20000		19:30	16	1	20000	20000
	20:30	8.2	1	20000	20000		20:30	8.2	1	20000	20000
	21:30	1.3	1	20000	20000		21:30	1.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 06/Jun	00:30	0	0	20000	0	Wed, 06/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.5	1	20000	20000		05:30	5.5	1	20000	20000
	06:30	12.9	1	20000	20000		06:30	12.9	1	20000	20000
	07:30	21	1	20000	20000		07:30	21	1	20000	20000
	08:30	29.4	1	20000	20000		08:30	29.4	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.3	1	20000	20000		10:30	45.3	1	20000	20000
	11:30	51.7	1	20000	20000		11:30	51.7	1	20000	20000
	12:30	55.7	1	20000	20000		12:30	55.7	1	20000	20000
	13:30	56.5	1	20000	20000		13:30	56.5	1	20000	20000
	14:30	53.7	1	20000	20000		14:30	53.7	1	20000	20000
	15:30	48.1	1	20000	20000		15:30	48.1	1	20000	20000
	16:30	40.8	1	20000	20000		16:30	40.8	1	20000	20000
	17:30	32.7	1	20000	20000		17:30	32.7	1	20000	20000
	18:30	24.3	1	20000	20000		18:30	24.3	1	20000	20000
	19:30	16.1	1	20000	20000		19:30	16.1	1	20000	20000
	20:30	8.4	1	20000	20000		20:30	8.4	1	20000	20000
	21:30	1.4	1	20000	20000		21:30	1.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 07/Jun	00:30	0	0	20000	0	Thu, 07/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.6	1	20000	20000		05:30	5.6	1	20000	20000
	06:30	13	1	20000	20000		06:30	13	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.4	1	20000	20000		10:30	45.4	1	20000	20000
	11:30	51.8	1	20000	20000		11:30	51.8	1	20000	20000
	12:30	55.8	1	20000	20000		12:30	55.8	1	20000	20000
	13:30	56.6	1	20000	20000		13:30	56.6	1	20000	20000
	14:30	53.8	1	20000	20000		14:30	53.8	1	20000	20000
	15:30	48.2	1	20000	20000		15:30	48.2	1	20000	20000
	16:30	40.9	1	20000	20000		16:30	40.9	1	20000	20000
	17:30	32.8	1	20000	20000		17:30	32.8	1	20000	20000
	18:30	24.5	1	20000	20000		18:30	24.5	1	20000	20000
	19:30	16.2	1	20000	20000		19:30	16.2	1	20000	20000
	20:30	8.5	1	20000	20000		20:30	8.5	1	20000	20000
	21:30	1.6	1	20000	20000		21:30	1.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 08/Jun	00:30	0	0	20000	0	Fri, 08/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.6	1	20000	20000		05:30	5.6	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	51.9	1	20000	20000		11:30	51.9	1	20000	20000
	12:30	55.9	1	20000	20000		12:30	55.9	1	20000	20000
	13:30	56.7	1	20000	20000		13:30	56.7	1	20000	20000
	14:30	53.9	1	20000	20000		14:30	53.9	1	20000	20000
	15:30	48.3	1	20000	20000		15:30	48.3	1	20000	20000
	16:30	41	1	20000	20000		16:30	41	1	20000	20000
	17:30	32.9	1	20000	20000		17:30	32.9	1	20000	20000
	18:30	24.6	1	20000	20000		18:30	24.6	1	20000	20000
	19:30	16.3	1	20000	20000		19:30	16.3	1	20000	20000
	20:30	8.6	1	20000	20000		20:30	8.6	1	20000	20000
	21:30	1.7	1	20000	20000		21:30	1.7	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 09/Jun	00:30	0	0	20000	0	Sat, 09/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000

	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	51.9	1	20000	20000		11:30	51.9	1	20000	20000
	12:30	56	1	20000	20000		12:30	56	1	20000	20000
	13:30	56.8	1	20000	20000		13:30	56.8	1	20000	20000
	14:30	54	1	20000	20000		14:30	54	1	20000	20000
	15:30	48.4	1	20000	20000		15:30	48.4	1	20000	20000
	16:30	41.1	1	20000	20000		16:30	41.1	1	20000	20000
	17:30	33	1	20000	20000		17:30	33	1	20000	20000
	18:30	24.7	1	20000	20000		18:30	24.7	1	20000	20000
	19:30	16.4	1	20000	20000		19:30	16.4	1	20000	20000
	20:30	8.7	1	20000	20000		20:30	8.7	1	20000	20000
	21:30	1.8	1	20000	20000		21:30	1.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 10/Jun	00:30	0	0	20000	0	Sun, 10/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.1	1	20000	20000		12:30	56.1	1	20000	20000
	13:30	56.9	1	20000	20000		13:30	56.9	1	20000	20000
	14:30	54.1	1	20000	20000		14:30	54.1	1	20000	20000
	15:30	48.5	1	20000	20000		15:30	48.5	1	20000	20000
	16:30	41.2	1	20000	20000		16:30	41.2	1	20000	20000
	17:30	33.1	1	20000	20000		17:30	33.1	1	20000	20000
	18:30	24.7	1	20000	20000		18:30	24.7	1	20000	20000
	19:30	16.5	1	20000	20000		19:30	16.5	1	20000	20000
	20:30	8.8	1	20000	20000		20:30	8.8	1	20000	20000
	21:30	1.9	1	20000	20000		21:30	1.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 11/Jun	00:30	0	0	20000	0	Mon, 11/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.1	1	20000	20000		12:30	56.1	1	20000	20000
	13:30	56.9	1	20000	20000		13:30	56.9	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.6	1	20000	20000		15:30	48.6	1	20000	20000
	16:30	41.3	1	20000	20000		16:30	41.3	1	20000	20000
	17:30	33.2	1	20000	20000		17:30	33.2	1	20000	20000
	18:30	24.8	1	20000	20000		18:30	24.8	1	20000	20000
	19:30	16.6	1	20000	20000		19:30	16.6	1	20000	20000
	20:30	8.9	1	20000	20000		20:30	8.9	1	20000	20000
	21:30	1.9	1	20000	20000		21:30	1.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 12/Jun	00:30	0	0	20000	0	Tue, 12/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000
	12:30	56.2	1	20000	20000		12:30	56.2	1	20000	20000
	13:30	57	1	20000	20000		13:30	57	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.7	1	20000	20000		15:30	48.7	1	20000	20000
	16:30	41.4	1	20000	20000		16:30	41.4	1	20000	20000
	17:30	33.3	1	20000	20000		17:30	33.3	1	20000	20000
	18:30	24.9	1	20000	20000		18:30	24.9	1	20000	20000
	19:30	16.7	1	20000	20000		19:30	16.7	1	20000	20000
	20:30	8.9	1	20000	20000		20:30	8.9	1	20000	20000
	21:30	2	1	20000	20000		21:30	2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 13/Jun	00:30	0	0	20000	0	Wed, 13/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.3	1	20000	20000		14:30	54.3	1	20000	20000
	15:30	48.8	1	20000	20000		15:30	48.8	1	20000	20000
	16:30	41.5	1	20000	20000		16:30	41.5	1	20000	20000
	17:30	33.4	1	20000	20000		17:30	33.4	1	20000	20000
	18:30	25	1	20000	20000		18:30	25	1	20000	20000
	19:30	16.8	1	20000	20000		19:30	16.8	1	20000	20000
	20:30	9	1	20000	20000		20:30	9	1	20000	20000
	21:30	2.1	1	20000	20000		21:30	2.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 14/Jun	00:30	0	0	20000	0	Thu, 14/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.4	1	20000	20000		14:30	54.4	1	20000	20000
	15:30	48.8	1	20000	20000		15:30	48.8	1	20000	20000
	16:30	41.6	1	20000	20000		16:30	41.6	1	20000	20000
	17:30	33.5	1	20000	20000		17:30	33.5	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.8	1	20000	20000		19:30	16.8	1	20000	20000
	20:30	9.1	1	20000	20000		20:30	9.1	1	20000	20000
	21:30	2.2	1	20000	20000		21:30	2.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 15/Jun	00:30	0	0	20000	0	Fri, 15/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0

	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.4	1	20000	20000		14:30	54.4	1	20000	20000
	15:30	48.9	1	20000	20000		15:30	48.9	1	20000	20000
	16:30	41.6	1	20000	20000		16:30	41.6	1	20000	20000
	17:30	33.5	1	20000	20000		17:30	33.5	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.9	1	20000	20000		19:30	16.9	1	20000	20000
	20:30	9.2	1	20000	20000		20:30	9.2	1	20000	20000
	21:30	2.3	1	20000	20000		21:30	2.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 16/Jun	00:30	0	0	20000	0	Sat, 16/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.4	1	20000	20000		07:30	21.4	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.5	1	20000	20000		14:30	54.5	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.7	1	20000	20000		16:30	41.7	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.2	1	20000	20000		18:30	25.2	1	20000	20000
	19:30	17	1	20000	20000		19:30	17	1	20000	20000
	20:30	9.2	1	20000	20000		20:30	9.2	1	20000	20000
	21:30	2.3	1	20000	20000		21:30	2.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 17/Jun	00:30	0	0	20000	0	Sun, 17/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.4	1	20000	20000		07:30	21.4	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.8	1	20000	20000		10:30	45.8	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17	1	20000	20000		19:30	17	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 18/Jun	00:30	0	0	20000	0	Mon, 18/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.4	1	20000	20000		07:30	21.4	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.8	1	20000	20000		10:30	45.8	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 19/Jun	00:30	0	0	20000	0	Tue, 19/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 20/Jun	00:30	0	0	20000	0	Wed, 20/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000

	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 21/Jun	00:30	0	0	20000	0	Thu, 21/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 22/Jun	00:30	0	0	20000	0	Fri, 22/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 23/Jun	00:30	0	0	20000	0	Sat, 23/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 24/Jun	00:30	0	0	20000	0	Sun, 24/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 25/Jun	00:30	0	0	20000	0	Mon, 25/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 26/Jun	00:30	0	0	20000	0	Tue, 26/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000

	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.6	1	20000	20000		18:30	25.6	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 27/Jun	00:30	0	0	20000	0	Wed, 27/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13	1	20000	20000		06:30	13	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.4	1	20000	20000		08:30	29.4	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.6	1	20000	20000		18:30	25.6	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 28/Jun	00:30	0	0	20000	0	Thu, 28/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.6	1	20000	20000		05:30	5.6	1	20000	20000
	06:30	13	1	20000	20000		06:30	13	1	20000	20000
	07:30	21	1	20000	20000		07:30	21	1	20000	20000
	08:30	29.4	1	20000	20000		08:30	29.4	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.4	1	20000	20000		10:30	45.4	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.6	1	20000	20000		18:30	25.6	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 29/Jun	00:30	0	0	20000	0	Fri, 29/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.5	1	20000	20000		05:30	5.5	1	20000	20000
	06:30	12.9	1	20000	20000		06:30	12.9	1	20000	20000
	07:30	20.9	1	20000	20000		07:30	20.9	1	20000	20000
	08:30	29.3	1	20000	20000		08:30	29.3	1	20000	20000
	09:30	37.6	1	20000	20000		09:30	37.6	1	20000	20000
	10:30	45.4	1	20000	20000		10:30	45.4	1	20000	20000
	11:30	51.9	1	20000	20000		11:30	51.9	1	20000	20000
	12:30	56.2	1	20000	20000		12:30	56.2	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 30/Jun	00:30	0	0	20000	0	Sat, 30/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.5	1	20000	20000		05:30	5.5	1	20000	20000
	06:30	12.8	1	20000	20000		06:30	12.8	1	20000	20000
	07:30	20.9	1	20000	20000		07:30	20.9	1	20000	20000
	08:30	29.2	1	20000	20000		08:30	29.2	1	20000	20000
	09:30	37.5	1	20000	20000		09:30	37.5	1	20000	20000
	10:30	45.3	1	20000	20000		10:30	45.3	1	20000	20000
	11:30	51.8	1	20000	20000		11:30	51.8	1	20000	20000
	12:30	56.2	1	20000	20000		12:30	56.2	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 01/Jul	00:30	0	0	20000	0	Sun, 01/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.4	1	20000	20000		05:30	5.4	1	20000	20000
	06:30	12.8	1	20000	20000		06:30	12.8	1	20000	20000
	07:30	20.8	1	20000	20000		07:30	20.8	1	20000	20000
	08:30	29.2	1	20000	20000		08:30	29.2	1	20000	20000
	09:30	37.5	1	20000	20000		09:30	37.5	1	20000	20000
	10:30	45.2	1	20000	20000		10:30	45.2	1	20000	20000
	11:30	51.8	1	20000	20000		11:30	51.8	1	20000	20000
	12:30	56.1	1	20000	20000		12:30	56.1	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 02/Jul	00:30	0	0	20000	0	Mon, 02/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0

	05:30	5.3	1	20000	20000		05:30	5.3	1	20000	20000
	06:30	12.7	1	20000	20000		06:30	12.7	1	20000	20000
	07:30	20.7	1	20000	20000		07:30	20.7	1	20000	20000
	08:30	29.1	1	20000	20000		08:30	29.1	1	20000	20000
	09:30	37.4	1	20000	20000		09:30	37.4	1	20000	20000
	10:30	45.2	1	20000	20000		10:30	45.2	1	20000	20000
	11:30	51.7	1	20000	20000		11:30	51.7	1	20000	20000
	12:30	56	1	20000	20000		12:30	56	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.5	1	20000	20000		14:30	54.5	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 03/Jul	00:30	0	0	20000	0	Tue, 03/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.2	1	20000	20000		05:30	5.2	1	20000	20000
	06:30	12.6	1	20000	20000		06:30	12.6	1	20000	20000
	07:30	20.6	1	20000	20000		07:30	20.6	1	20000	20000
	08:30	29	1	20000	20000		08:30	29	1	20000	20000
	09:30	37.3	1	20000	20000		09:30	37.3	1	20000	20000
	10:30	45.1	1	20000	20000		10:30	45.1	1	20000	20000
	11:30	51.6	1	20000	20000		11:30	51.6	1	20000	20000
	12:30	55.9	1	20000	20000		12:30	55.9	1	20000	20000
	13:30	57	1	20000	20000		13:30	57	1	20000	20000
	14:30	54.5	1	20000	20000		14:30	54.5	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 04/Jul	00:30	0	0	20000	0	Wed, 04/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.2	1	20000	20000		05:30	5.2	1	20000	20000
	06:30	12.5	1	20000	20000		06:30	12.5	1	20000	20000
	07:30	20.5	1	20000	20000		07:30	20.5	1	20000	20000
	08:30	28.9	1	20000	20000		08:30	28.9	1	20000	20000
	09:30	37.2	1	20000	20000		09:30	37.2	1	20000	20000
	10:30	45	1	20000	20000		10:30	45	1	20000	20000
	11:30	51.5	1	20000	20000		11:30	51.5	1	20000	20000
	12:30	55.8	1	20000	20000		12:30	55.8	1	20000	20000
	13:30	56.9	1	20000	20000		13:30	56.9	1	20000	20000
	14:30	54.4	1	20000	20000		14:30	54.4	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 05/Jul	00:30	0	0	20000	0	Thu, 05/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.1	1	20000	20000		05:30	5.1	1	20000	20000
	06:30	12.4	1	20000	20000		06:30	12.4	1	20000	20000
	07:30	20.5	1	20000	20000		07:30	20.5	1	20000	20000
	08:30	28.8	1	20000	20000		08:30	28.8	1	20000	20000
	09:30	37.1	1	20000	20000		09:30	37.1	1	20000	20000
	10:30	44.9	1	20000	20000		10:30	44.9	1	20000	20000
	11:30	51.4	1	20000	20000		11:30	51.4	1	20000	20000
	12:30	55.8	1	20000	20000		12:30	55.8	1	20000	20000
	13:30	56.8	1	20000	20000		13:30	56.8	1	20000	20000
	14:30	54.3	1	20000	20000		14:30	54.3	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.3	1	20000	20000		21:30	2.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 06/Jul	00:30	0	0	20000	0	Fri, 06/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5	1	20000	20000		05:30	5	1	20000	20000
	06:30	12.3	1	20000	20000		06:30	12.3	1	20000	20000
	07:30	20.4	1	20000	20000		07:30	20.4	1	20000	20000
	08:30	28.7	1	20000	20000		08:30	28.7	1	20000	20000
	09:30	37	1	20000	20000		09:30	37	1	20000	20000
	10:30	44.8	1	20000	20000		10:30	44.8	1	20000	20000
	11:30	51.3	1	20000	20000		11:30	51.3	1	20000	20000
	12:30	55.7	1	20000	20000		12:30	55.7	1	20000	20000
	13:30	56.7	1	20000	20000		13:30	56.7	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.9	1	20000	20000		15:30	48.9	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.2	1	20000	20000		21:30	2.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 07/Jul	00:30	0	0	20000	0	Sat, 07/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.9	1	20000	20000		05:30	4.9	1	20000	20000
	06:30	12.2	1	20000	20000		06:30	12.2	1	20000	20000
	07:30	20.3	1	20000	20000		07:30	20.3	1	20000	20000
	08:30	28.6	1	20000	20000		08:30	28.6	1	20000	20000
	09:30	36.9	1	20000	20000		09:30	36.9	1	20000	20000
	10:30	44.7	1	20000	20000		10:30	44.7	1	20000	20000
	11:30	51.2	1	20000	20000		11:30	51.2	1	20000	20000
	12:30	55.6	1	20000	20000		12:30	55.6	1	20000	20000
	13:30	56.6	1	20000	20000		13:30	56.6	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.8	1	20000	20000		15:30	48.8	1	20000	20000
	16:30	41.7	1	20000	20000		16:30	41.7	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17	1	20000	20000		19:30	17	1	20000	20000
	20:30	9.2	1	20000	20000		20:30	9.2	1	20000	20000
	21:30	2.2	1	20000	20000		21:30	2.2	1	20000	20000

	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 08/Jul	00:30	0	0	20000	0	Sun, 08/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.7	1	20000	20000		05:30	4.7	1	20000	20000
	06:30	12.1	1	20000	20000		06:30	12.1	1	20000	20000
	07:30	20.1	1	20000	20000		07:30	20.1	1	20000	20000
	08:30	28.5	1	20000	20000		08:30	28.5	1	20000	20000
	09:30	36.8	1	20000	20000		09:30	36.8	1	20000	20000
	10:30	44.6	1	20000	20000		10:30	44.6	1	20000	20000
	11:30	51.1	1	20000	20000		11:30	51.1	1	20000	20000
	12:30	55.4	1	20000	20000		12:30	55.4	1	20000	20000
	13:30	56.5	1	20000	20000		13:30	56.5	1	20000	20000
	14:30	54.1	1	20000	20000		14:30	54.1	1	20000	20000
	15:30	48.7	1	20000	20000		15:30	48.7	1	20000	20000
	16:30	41.6	1	20000	20000		16:30	41.6	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.2	1	20000	20000		18:30	25.2	1	20000	20000
	19:30	16.9	1	20000	20000		19:30	16.9	1	20000	20000
	20:30	9.1	1	20000	20000		20:30	9.1	1	20000	20000
	21:30	2.1	1	20000	20000		21:30	2.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 09/Jul	00:30	0	0	20000	0	Mon, 09/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.6	1	20000	20000		05:30	4.6	1	20000	20000
	06:30	12	1	20000	20000		06:30	12	1	20000	20000
	07:30	20	1	20000	20000		07:30	20	1	20000	20000
	08:30	28.4	1	20000	20000		08:30	28.4	1	20000	20000
	09:30	36.7	1	20000	20000		09:30	36.7	1	20000	20000
	10:30	44.5	1	20000	20000		10:30	44.5	1	20000	20000
	11:30	51	1	20000	20000		11:30	51	1	20000	20000
	12:30	55.3	1	20000	20000		12:30	55.3	1	20000	20000
	13:30	56.4	1	20000	20000		13:30	56.4	1	20000	20000
	14:30	54	1	20000	20000		14:30	54	1	20000	20000
	15:30	48.7	1	20000	20000		15:30	48.7	1	20000	20000
	16:30	41.5	1	20000	20000		16:30	41.5	1	20000	20000
	17:30	33.5	1	20000	20000		17:30	33.5	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.9	1	20000	20000		19:30	16.9	1	20000	20000
	20:30	9	1	20000	20000		20:30	9	1	20000	20000
	21:30	2	1	20000	20000		21:30	2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 10/Jul	00:30	0	0	20000	0	Tue, 10/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.5	1	20000	20000		05:30	4.5	1	20000	20000
	06:30	11.9	1	20000	20000		06:30	11.9	1	20000	20000
	07:30	19.9	1	20000	20000		07:30	19.9	1	20000	20000
	08:30	28.3	1	20000	20000		08:30	28.3	1	20000	20000
	09:30	36.6	1	20000	20000		09:30	36.6	1	20000	20000
	10:30	44.3	1	20000	20000		10:30	44.3	1	20000	20000
	11:30	50.9	1	20000	20000		11:30	50.9	1	20000	20000
	12:30	55.2	1	20000	20000		12:30	55.2	1	20000	20000
	13:30	56.3	1	20000	20000		13:30	56.3	1	20000	20000
	14:30	53.9	1	20000	20000		14:30	53.9	1	20000	20000
	15:30	48.6	1	20000	20000		15:30	48.6	1	20000	20000
	16:30	41.5	1	20000	20000		16:30	41.5	1	20000	20000
	17:30	33.4	1	20000	20000		17:30	33.4	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.8	1	20000	20000		19:30	16.8	1	20000	20000
	20:30	9	1	20000	20000		20:30	9	1	20000	20000
	21:30	1.9	1	20000	20000		21:30	1.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 11/Jul	00:30	0	0	20000	0	Wed, 11/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.4	1	20000	20000		05:30	4.4	1	20000	20000
	06:30	11.8	1	20000	20000		06:30	11.8	1	20000	20000
	07:30	19.8	1	20000	20000		07:30	19.8	1	20000	20000
	08:30	28.2	1	20000	20000		08:30	28.2	1	20000	20000
	09:30	36.5	1	20000	20000		09:30	36.5	1	20000	20000
	10:30	44.2	1	20000	20000		10:30	44.2	1	20000	20000
	11:30	50.7	1	20000	20000		11:30	50.7	1	20000	20000
	12:30	55.1	1	20000	20000		12:30	55.1	1	20000	20000
	13:30	56.2	1	20000	20000		13:30	56.2	1	20000	20000
	14:30	53.8	1	20000	20000		14:30	53.8	1	20000	20000
	15:30	48.5	1	20000	20000		15:30	48.5	1	20000	20000
	16:30	41.4	1	20000	20000		16:30	41.4	1	20000	20000
	17:30	33.4	1	20000	20000		17:30	33.4	1	20000	20000
	18:30	25	1	20000	20000		18:30	25	1	20000	20000
	19:30	16.7	1	20000	20000		19:30	16.7	1	20000	20000
	20:30	8.9	1	20000	20000		20:30	8.9	1	20000	20000
	21:30	1.8	1	20000	20000		21:30	1.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 12/Jul	00:30	0	0	20000	0	Thu, 12/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.3	1	20000	20000		05:30	4.3	1	20000	20000
	06:30	11.6	1	20000	20000		06:30	11.6	1	20000	20000
	07:30	19.7	1	20000	20000		07:30	19.7	1	20000	20000
	08:30	28	1	20000	20000		08:30	28	1	20000	20000
	09:30	36.3	1	20000	20000		09:30	36.3	1	20000	20000
	10:30	44.1	1	20000	20000		10:30	44.1	1	20000	20000
	11:30	50.6	1	20000	20000		11:30	50.6	1	20000	20000
	12:30	54.9	1	20000	20000		12:30	54.9	1	20000	20000
	13:30	56.1	1	20000	20000		13:30	56.1	1	20000	20000
	14:30	53.6	1	20000	20000		14:30	53.6	1	20000	20000
	15:30	48.4	1	20000	20000		15:30	48.4	1	20000	20000
	16:30	41.3	1	20000	20000		16:30	41.3	1	20000	20000
	17:30	33.3	1	20000	20000		17:30	33.3	1	20000	20000
	18:30	24.9	1	20000	20000		18:30	24.9	1	20000	20000
	19:30	16.6	1	20000	20000		19:30	16.6	1	20000	20000
	20:30	8.8	1	20000	20000		20:30	8.8	1	20000	20000
	21:30	1.7	1	20000	20000		21:30	1.7	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 13/Jul	00:30	0	0	20000	0	Fri, 13/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.1	1	20000	20000		05:30	4.1	1	20000	20000
	06:30	11.5	1	20000	20000		06:30	11.5	1	20000	20000
	07:30	19.5	1	20000	20000		07:30	19.5	1	20000	20000
	08:30	27.9	1	20000	20000		08:30	27.9	1	20000	20000
	09:30	36.2	1	20000	20000		09:30	36.2	1	20000	20000
	10:30	44	1	20000	20000		10:30	44	1	20000	20000
	11:30	50.5	1	20000	20000		11:30	50.5	1	20000	20000
	12:30	54.8	1	20000	20000		12:30	54.8	1	20000	20000
	13:30	55.9	1	20000	20000		13:30	55.9	1	20000	20000
	14:30	53.5	1	20000	20000		14:30	53.5	1	20000	20000

	15:30	48.3	1	20000	20000		15:30	48.3	1	20000	20000
	16:30	41.2	1	20000	20000		16:30	41.2	1	20000	20000
	17:30	33.2	1	20000	20000		17:30	33.2	1	20000	20000
	18:30	24.8	1	20000	20000		18:30	24.8	1	20000	20000
	19:30	16.5	1	20000	20000		19:30	16.5	1	20000	20000
	20:30	8.7	1	20000	20000		20:30	8.7	1	20000	20000
	21:30	1.6	1	20000	20000		21:30	1.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 14/Jul	00:30	0	0	20000	0	Sat, 14/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4	1	20000	20000		05:30	4	1	20000	20000
	06:30	11.4	1	20000	20000		06:30	11.4	1	20000	20000
	07:30	19.4	1	20000	20000		07:30	19.4	1	20000	20000
	08:30	27.8	1	20000	20000		08:30	27.8	1	20000	20000
	09:30	36.1	1	20000	20000		09:30	36.1	1	20000	20000
	10:30	43.8	1	20000	20000		10:30	43.8	1	20000	20000
	11:30	50.3	1	20000	20000		11:30	50.3	1	20000	20000
	12:30	54.6	1	20000	20000		12:30	54.6	1	20000	20000
	13:30	55.8	1	20000	20000		13:30	55.8	1	20000	20000
	14:30	53.4	1	20000	20000		14:30	53.4	1	20000	20000
	15:30	48.1	1	20000	20000		15:30	48.1	1	20000	20000
	16:30	41.1	1	20000	20000		16:30	41.1	1	20000	20000
	17:30	33.1	1	20000	20000		17:30	33.1	1	20000	20000
	18:30	24.7	1	20000	20000		18:30	24.7	1	20000	20000
	19:30	16.4	1	20000	20000		19:30	16.4	1	20000	20000
	20:30	8.6	1	20000	20000		20:30	8.6	1	20000	20000
	21:30	1.5	1	20000	20000		21:30	1.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 15/Jul	00:30	0	0	20000	0	Sun, 15/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.8	1	20000	20000		05:30	3.8	1	20000	20000
	06:30	11.2	1	20000	20000		06:30	11.2	1	20000	20000
	07:30	19.3	1	20000	20000		07:30	19.3	1	20000	20000
	08:30	27.6	1	20000	20000		08:30	27.6	1	20000	20000
	09:30	35.9	1	20000	20000		09:30	35.9	1	20000	20000
	10:30	43.7	1	20000	20000		10:30	43.7	1	20000	20000
	11:30	50.2	1	20000	20000		11:30	50.2	1	20000	20000
	12:30	54.5	1	20000	20000		12:30	54.5	1	20000	20000
	13:30	55.6	1	20000	20000		13:30	55.6	1	20000	20000
	14:30	53.3	1	20000	20000		14:30	53.3	1	20000	20000
	15:30	48	1	20000	20000		15:30	48	1	20000	20000
	16:30	41	1	20000	20000		16:30	41	1	20000	20000
	17:30	33	1	20000	20000		17:30	33	1	20000	20000
	18:30	24.6	1	20000	20000		18:30	24.6	1	20000	20000
	19:30	16.3	1	20000	20000		19:30	16.3	1	20000	20000
	20:30	8.5	1	20000	20000		20:30	8.5	1	20000	20000
	21:30	1.4	1	20000	20000		21:30	1.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 16/Jul	00:30	0	0	20000	0	Mon, 16/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.6	1	20000	20000		05:30	3.6	1	20000	20000
	06:30	11	1	20000	20000		06:30	11	1	20000	20000
	07:30	19.1	1	20000	20000		07:30	19.1	1	20000	20000
	08:30	27.5	1	20000	20000		08:30	27.5	1	20000	20000
	09:30	35.7	1	20000	20000		09:30	35.7	1	20000	20000
	10:30	43.5	1	20000	20000		10:30	43.5	1	20000	20000
	11:30	50	1	20000	20000		11:30	50	1	20000	20000
	12:30	54.3	1	20000	20000		12:30	54.3	1	20000	20000
	13:30	55.4	1	20000	20000		13:30	55.4	1	20000	20000
	14:30	53.1	1	20000	20000		14:30	53.1	1	20000	20000
	15:30	47.9	1	20000	20000		15:30	47.9	1	20000	20000
	16:30	40.8	1	20000	20000		16:30	40.8	1	20000	20000
	17:30	32.8	1	20000	20000		17:30	32.8	1	20000	20000
	18:30	24.4	1	20000	20000		18:30	24.4	1	20000	20000
	19:30	16.2	1	20000	20000		19:30	16.2	1	20000	20000
	20:30	8.3	1	20000	20000		20:30	8.3	1	20000	20000
	21:30	1.2	1	20000	20000		21:30	1.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 17/Jul	00:30	0	0	20000	0	Tue, 17/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.5	1	20000	20000		05:30	3.5	1	20000	20000
	06:30	10.9	1	20000	20000		06:30	10.9	1	20000	20000
	07:30	19	1	20000	20000		07:30	19	1	20000	20000
	08:30	27.3	1	20000	20000		08:30	27.3	1	20000	20000
	09:30	35.6	1	20000	20000		09:30	35.6	1	20000	20000
	10:30	43.3	1	20000	20000		10:30	43.3	1	20000	20000
	11:30	49.8	1	20000	20000		11:30	49.8	1	20000	20000
	12:30	54.1	1	20000	20000		12:30	54.1	1	20000	20000
	13:30	55.3	1	20000	20000		13:30	55.3	1	20000	20000
	14:30	52.9	1	20000	20000		14:30	52.9	1	20000	20000
	15:30	47.7	1	20000	20000		15:30	47.7	1	20000	20000
	16:30	40.7	1	20000	20000		16:30	40.7	1	20000	20000
	17:30	32.7	1	20000	20000		17:30	32.7	1	20000	20000
	18:30	24.3	1	20000	20000		18:30	24.3	1	20000	20000
	19:30	16	1	20000	20000		19:30	16	1	20000	20000
	20:30	8.2	1	20000	20000		20:30	8.2	1	20000	20000
	21:30	1.1	1	20000	20000		21:30	1.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 18/Jul	00:30	0	0	20000	0	Wed, 18/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.3	1	20000	20000		05:30	3.3	1	20000	20000
	06:30	10.7	1	20000	20000		06:30	10.7	1	20000	20000
	07:30	18.8	1	20000	20000		07:30	18.8	1	20000	20000
	08:30	27.2	1	20000	20000		08:30	27.2	1	20000	20000
	09:30	35.5	1	20000	20000		09:30	35.5	1	20000	20000
	10:30	43.2	1	20000	20000		10:30	43.2	1	20000	20000
	11:30	49.7	1	20000	20000		11:30	49.7	1	20000	20000
	12:30	54	1	20000	20000		12:30	54	1	20000	20000
	13:30	55.1	1	20000	20000		13:30	55.1	1	20000	20000
	14:30	52.8	1	20000	20000		14:30	52.8	1	20000	20000
	15:30	47.6	1	20000	20000		15:30	47.6	1	20000	20000
	16:30	40.6	1	20000	20000		16:30	40.6	1	20000	20000
	17:30	32.6	1	20000	20000		17:30	32.6	1	20000	20000
	18:30	24.2	1	20000	20000		18:30	24.2	1	20000	20000
	19:30	15.9	1	20000	20000		19:30	15.9	1	20000	20000
	20:30	8	1	20000	20000		20:30	8	1	20000	20000
	21:30	0.9	1	20000	20000		21:30	0.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 19/Jul	00:30	0	0	20000	0	Thu, 19/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.2	1	20000	20000		05:30	3.2	1	20000	20000
	06:30	10.6	1	20000	20000		06:30	10.6	1	20000	20000
	07:30	18.7	1	20000	20000		07:30	18.7	1	20000	20000

	08:30	27	1	20000	20000		08:30	27	1	20000	20000
	09:30	35.3	1	20000	20000		09:30	35.3	1	20000	20000
	10:30	43	1	20000	20000		10:30	43	1	20000	20000
	11:30	49.5	1	20000	20000		11:30	49.5	1	20000	20000
	12:30	53.8	1	20000	20000		12:30	53.8	1	20000	20000
	13:30	54.9	1	20000	20000		13:30	54.9	1	20000	20000
	14:30	52.6	1	20000	20000		14:30	52.6	1	20000	20000
	15:30	47.4	1	20000	20000		15:30	47.4	1	20000	20000
	16:30	40.4	1	20000	20000		16:30	40.4	1	20000	20000
	17:30	32.4	1	20000	20000		17:30	32.4	1	20000	20000
	18:30	24.1	1	20000	20000		18:30	24.1	1	20000	20000
	19:30	15.8	1	20000	20000		19:30	15.8	1	20000	20000
	20:30	7.9	1	20000	20000		20:30	7.9	1	20000	20000
	21:30	0.8	1	20000	20000		21:30	0.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 20/Jul	00:30	0	0	20000	0	Fri, 20/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3	1	20000	20000		05:30	3	1	20000	20000
	06:30	10.4	1	20000	20000		06:30	10.4	1	20000	20000
	07:30	18.5	1	20000	20000		07:30	18.5	1	20000	20000
	08:30	26.9	1	20000	20000		08:30	26.9	1	20000	20000
	09:30	35.1	1	20000	20000		09:30	35.1	1	20000	20000
	10:30	42.9	1	20000	20000		10:30	42.9	1	20000	20000
	11:30	49.3	1	20000	20000		11:30	49.3	1	20000	20000
	12:30	53.6	1	20000	20000		12:30	53.6	1	20000	20000
	13:30	54.7	1	20000	20000		13:30	54.7	1	20000	20000
	14:30	52.4	1	20000	20000		14:30	52.4	1	20000	20000
	15:30	47.3	1	20000	20000		15:30	47.3	1	20000	20000
	16:30	40.3	1	20000	20000		16:30	40.3	1	20000	20000
	17:30	32.3	1	20000	20000		17:30	32.3	1	20000	20000
	18:30	23.9	1	20000	20000		18:30	23.9	1	20000	20000
	19:30	15.6	1	20000	20000		19:30	15.6	1	20000	20000
	20:30	7.8	1	20000	20000		20:30	7.8	1	20000	20000
	21:30	0.6	1	20000	20000		21:30	0.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 21/Jul	00:30	0	0	20000	0	Sat, 21/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.8	1	20000	20000		05:30	2.8	1	20000	20000
	06:30	10.3	1	20000	20000		06:30	10.3	1	20000	20000
	07:30	18.3	1	20000	20000		07:30	18.3	1	20000	20000
	08:30	26.7	1	20000	20000		08:30	26.7	1	20000	20000
	09:30	35	1	20000	20000		09:30	35	1	20000	20000
	10:30	42.7	1	20000	20000		10:30	42.7	1	20000	20000
	11:30	49.1	1	20000	20000		11:30	49.1	1	20000	20000
	12:30	53.4	1	20000	20000		12:30	53.4	1	20000	20000
	13:30	54.6	1	20000	20000		13:30	54.6	1	20000	20000
	14:30	52.3	1	20000	20000		14:30	52.3	1	20000	20000
	15:30	47.1	1	20000	20000		15:30	47.1	1	20000	20000
	16:30	40.1	1	20000	20000		16:30	40.1	1	20000	20000
	17:30	32.2	1	20000	20000		17:30	32.2	1	20000	20000
	18:30	23.8	1	20000	20000		18:30	23.8	1	20000	20000
	19:30	15.5	1	20000	20000		19:30	15.5	1	20000	20000
	20:30	7.6	1	20000	20000		20:30	7.6	1	20000	20000
	21:30	0.5	1	20000	20000		21:30	0.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 22/Jul	00:30	0	0	20000	0	Sun, 22/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.7	1	20000	20000		05:30	2.7	1	20000	20000
	06:30	10.1	1	20000	20000		06:30	10.1	1	20000	20000
	07:30	18.2	1	20000	20000		07:30	18.2	1	20000	20000
	08:30	26.5	1	20000	20000		08:30	26.5	1	20000	20000
	09:30	34.8	1	20000	20000		09:30	34.8	1	20000	20000
	10:30	42.5	1	20000	20000		10:30	42.5	1	20000	20000
	11:30	49	1	20000	20000		11:30	49	1	20000	20000
	12:30	53.2	1	20000	20000		12:30	53.2	1	20000	20000
	13:30	54.4	1	20000	20000		13:30	54.4	1	20000	20000
	14:30	52.1	1	20000	20000		14:30	52.1	1	20000	20000
	15:30	46.9	1	20000	20000		15:30	46.9	1	20000	20000
	16:30	40	1	20000	20000		16:30	40	1	20000	20000
	17:30	32	1	20000	20000		17:30	32	1	20000	20000
	18:30	23.7	1	20000	20000		18:30	23.7	1	20000	20000
	19:30	15.4	1	20000	20000		19:30	15.4	1	20000	20000
	20:30	7.5	1	20000	20000		20:30	7.5	1	20000	20000
	21:30	0.3	1	20000	20000		21:30	0.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 23/Jul	00:30	0	0	20000	0	Mon, 23/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.5	1	20000	20000		05:30	2.5	1	20000	20000
	06:30	9.9	1	20000	20000		06:30	9.9	1	20000	20000
	07:30	18	1	20000	20000		07:30	18	1	20000	20000
	08:30	26.4	1	20000	20000		08:30	26.4	1	20000	20000
	09:30	34.7	1	20000	20000		09:30	34.7	1	20000	20000
	10:30	42.3	1	20000	20000		10:30	42.3	1	20000	20000
	11:30	48.8	1	20000	20000		11:30	48.8	1	20000	20000
	12:30	53	1	20000	20000		12:30	53	1	20000	20000
	13:30	54.2	1	20000	20000		13:30	54.2	1	20000	20000
	14:30	51.9	1	20000	20000		14:30	51.9	1	20000	20000
	15:30	46.8	1	20000	20000		15:30	46.8	1	20000	20000
	16:30	39.8	1	20000	20000		16:30	39.8	1	20000	20000
	17:30	31.9	1	20000	20000		17:30	31.9	1	20000	20000
	18:30	23.5	1	20000	20000		18:30	23.5	1	20000	20000
	19:30	15.2	1	20000	20000		19:30	15.2	1	20000	20000
	20:30	7.3	1	20000	20000		20:30	7.3	1	20000	20000
	21:30	0.2	1	20000	20000		21:30	0.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 24/Jul	00:30	0	0	20000	0	Tue, 24/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.3	1	20000	20000		05:30	2.3	1	20000	20000
	06:30	9.8	1	20000	20000		06:30	9.8	1	20000	20000
	07:30	17.8	1	20000	20000		07:30	17.8	1	20000	20000
	08:30	26.2	1	20000	20000		08:30	26.2	1	20000	20000
	09:30	34.5	1	20000	20000		09:30	34.5	1	20000	20000
	10:30	42.2	1	20000	20000		10:30	42.2	1	20000	20000
	11:30	48.6	1	20000	20000		11:30	48.6	1	20000	20000
	12:30	52.8	1	20000	20000		12:30	52.8	1	20000	20000
	13:30	54	1	20000	20000		13:30	54	1	20000	20000
	14:30	51.7	1	20000	20000		14:30	51.7	1	20000	20000
	15:30	46.6	1	20000	20000		15:30	46.6	1	20000	20000
	16:30	39.6	1	20000	20000		16:30	39.6	1	20000	20000
	17:30	31.7	1	20000	20000		17:30	31.7	1	20000	20000
	18:30	23.3	1	20000	20000		18:30	23.3	1	20000	20000
	19:30	15	1	20000	20000		19:30	15	1	20000	20000
	20:30	7.1	1	20000	20000		20:30	7.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 25/Jul	00:30	0	0	20000	0	Wed, 25/Jul	00:30	0	0	20000	0

	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.1	1	20000	20000		05:30	2.1	1	20000	20000
	06:30	9.6	1	20000	20000		06:30	9.6	1	20000	20000
	07:30	17.7	1	20000	20000		07:30	17.7	1	20000	20000
	08:30	26	1	20000	20000		08:30	26	1	20000	20000
	09:30	34.3	1	20000	20000		09:30	34.3	1	20000	20000
	10:30	42	1	20000	20000		10:30	42	1	20000	20000
	11:30	48.4	1	20000	20000		11:30	48.4	1	20000	20000
	12:30	52.6	1	20000	20000		12:30	52.6	1	20000	20000
	13:30	53.8	1	20000	20000		13:30	53.8	1	20000	20000
	14:30	51.5	1	20000	20000		14:30	51.5	1	20000	20000
	15:30	46.4	1	20000	20000		15:30	46.4	1	20000	20000
	16:30	39.5	1	20000	20000		16:30	39.5	1	20000	20000
	17:30	31.5	1	20000	20000		17:30	31.5	1	20000	20000
	18:30	23.2	1	20000	20000		18:30	23.2	1	20000	20000
	19:30	14.9	1	20000	20000		19:30	14.9	1	20000	20000
	20:30	7	1	20000	20000		20:30	7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 26/Jul	00:30	0	0	20000	0	Thu, 26/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.9	1	20000	20000		05:30	1.9	1	20000	20000
	06:30	9.4	1	20000	20000		06:30	9.4	1	20000	20000
	07:30	17.5	1	20000	20000		07:30	17.5	1	20000	20000
	08:30	25.9	1	20000	20000		08:30	25.9	1	20000	20000
	09:30	34.1	1	20000	20000		09:30	34.1	1	20000	20000
	10:30	41.8	1	20000	20000		10:30	41.8	1	20000	20000
	11:30	48.2	1	20000	20000		11:30	48.2	1	20000	20000
	12:30	52.4	1	20000	20000		12:30	52.4	1	20000	20000
	13:30	53.5	1	20000	20000		13:30	53.5	1	20000	20000
	14:30	51.3	1	20000	20000		14:30	51.3	1	20000	20000
	15:30	46.2	1	20000	20000		15:30	46.2	1	20000	20000
	16:30	39.3	1	20000	20000		16:30	39.3	1	20000	20000
	17:30	31.4	1	20000	20000		17:30	31.4	1	20000	20000
	18:30	23	1	20000	20000		18:30	23	1	20000	20000
	19:30	14.7	1	20000	20000		19:30	14.7	1	20000	20000
	20:30	6.8	1	20000	20000		20:30	6.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 27/Jul	00:30	0	0	20000	0	Fri, 27/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.8	1	20000	20000		05:30	1.8	1	20000	20000
	06:30	9.2	1	20000	20000		06:30	9.2	1	20000	20000
	07:30	17.3	1	20000	20000		07:30	17.3	1	20000	20000
	08:30	25.7	1	20000	20000		08:30	25.7	1	20000	20000
	09:30	33.9	1	20000	20000		09:30	33.9	1	20000	20000
	10:30	41.6	1	20000	20000		10:30	41.6	1	20000	20000
	11:30	48	1	20000	20000		11:30	48	1	20000	20000
	12:30	52.2	1	20000	20000		12:30	52.2	1	20000	20000
	13:30	53.3	1	20000	20000		13:30	53.3	1	20000	20000
	14:30	51.1	1	20000	20000		14:30	51.1	1	20000	20000
	15:30	46	1	20000	20000		15:30	46	1	20000	20000
	16:30	39.1	1	20000	20000		16:30	39.1	1	20000	20000
	17:30	31.2	1	20000	20000		17:30	31.2	1	20000	20000
	18:30	22.8	1	20000	20000		18:30	22.8	1	20000	20000
	19:30	14.5	1	20000	20000		19:30	14.5	1	20000	20000
	20:30	6.6	1	20000	20000		20:30	6.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 28/Jul	00:30	0	0	20000	0	Sat, 28/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.6	1	20000	20000		05:30	1.6	1	20000	20000
	06:30	9	1	20000	20000		06:30	9	1	20000	20000
	07:30	17.1	1	20000	20000		07:30	17.1	1	20000	20000
	08:30	25.5	1	20000	20000		08:30	25.5	1	20000	20000
	09:30	33.8	1	20000	20000		09:30	33.8	1	20000	20000
	10:30	41.4	1	20000	20000		10:30	41.4	1	20000	20000
	11:30	47.8	1	20000	20000		11:30	47.8	1	20000	20000
	12:30	52	1	20000	20000		12:30	52	1	20000	20000
	13:30	53.1	1	20000	20000		13:30	53.1	1	20000	20000
	14:30	50.9	1	20000	20000		14:30	50.9	1	20000	20000
	15:30	45.8	1	20000	20000		15:30	45.8	1	20000	20000
	16:30	38.9	1	20000	20000		16:30	38.9	1	20000	20000
	17:30	31	1	20000	20000		17:30	31	1	20000	20000
	18:30	22.6	1	20000	20000		18:30	22.6	1	20000	20000
	19:30	14.3	1	20000	20000		19:30	14.3	1	20000	20000
	20:30	6.4	1	20000	20000		20:30	6.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 29/Jul	00:30	0	0	20000	0	Sun, 29/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.4	1	20000	20000		05:30	1.4	1	20000	20000
	06:30	8.8	1	20000	20000		06:30	8.8	1	20000	20000
	07:30	17	1	20000	20000		07:30	17	1	20000	20000
	08:30	25.3	1	20000	20000		08:30	25.3	1	20000	20000
	09:30	33.6	1	20000	20000		09:30	33.6	1	20000	20000
	10:30	41.2	1	20000	20000		10:30	41.2	1	20000	20000
	11:30	47.6	1	20000	20000		11:30	47.6	1	20000	20000
	12:30	51.7	1	20000	20000		12:30	51.7	1	20000	20000
	13:30	52.9	1	20000	20000		13:30	52.9	1	20000	20000
	14:30	50.6	1	20000	20000		14:30	50.6	1	20000	20000
	15:30	45.6	1	20000	20000		15:30	45.6	1	20000	20000
	16:30	38.7	1	20000	20000		16:30	38.7	1	20000	20000
	17:30	30.8	1	20000	20000		17:30	30.8	1	20000	20000
	18:30	22.5	1	20000	20000		18:30	22.5	1	20000	20000
	19:30	14.1	1	20000	20000		19:30	14.1	1	20000	20000
	20:30	6.2	1	20000	20000		20:30	6.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 30/Jul	00:30	0	0	20000	0	Mon, 30/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.2	1	20000	20000		05:30	1.2	1	20000	20000
	06:30	8.7	1	20000	20000		06:30	8.7	1	20000	20000
	07:30	16.8	1	20000	20000		07:30	16.8	1	20000	20000
	08:30	25.1	1	20000	20000		08:30	25.1	1	20000	20000
	09:30	33.4	1	20000	20000		09:30	33.4	1	20000	20000
	10:30	41	1	20000	20000		10:30	41	1	20000	20000
	11:30	47.4	1	20000	20000		11:30	47.4	1	20000	20000
	12:30	51.5	1	20000	20000		12:30	51.5	1	20000	20000
	13:30	52.6	1	20000	20000		13:30	52.6	1	20000	20000
	14:30	50.4	1	20000	20000		14:30	50.4	1	20000	20000
	15:30	45.4	1	20000	20000		15:30	45.4	1	20000	20000
	16:30	38.5	1	20000	20000		16:30	38.5	1	20000	20000
	17:30	30.6	1	20000	20000		17:30	30.6	1	20000	20000

	18:30	22.3	1	20000	20000		18:30	22.3	1	20000	20000
	19:30	13.9	1	20000	20000		19:30	13.9	1	20000	20000
	20:30	6	1	20000	20000		20:30	6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 31/Jul	00:30	0	0	20000	0	Tue, 31/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1	1	20000	20000		05:30	1	1	20000	20000
	06:30	8.5	1	20000	20000		06:30	8.5	1	20000	20000
	07:30	16.6	1	20000	20000		07:30	16.6	1	20000	20000
	08:30	24.9	1	20000	20000		08:30	24.9	1	20000	20000
	09:30	33.2	1	20000	20000		09:30	33.2	1	20000	20000
	10:30	40.8	1	20000	20000		10:30	40.8	1	20000	20000
	11:30	47.1	1	20000	20000		11:30	47.1	1	20000	20000
	12:30	51.3	1	20000	20000		12:30	51.3	1	20000	20000
	13:30	52.4	1	20000	20000		13:30	52.4	1	20000	20000
	14:30	50.2	1	20000	20000		14:30	50.2	1	20000	20000
	15:30	45.2	1	20000	20000		15:30	45.2	1	20000	20000
	16:30	38.3	1	20000	20000		16:30	38.3	1	20000	20000
	17:30	30.4	1	20000	20000		17:30	30.4	1	20000	20000
	18:30	22.1	1	20000	20000		18:30	22.1	1	20000	20000
	19:30	13.7	1	20000	20000		19:30	13.7	1	20000	20000
	20:30	5.8	1	20000	20000		20:30	5.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 01/Aug	00:30	0	0	20000	0	Wed, 01/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.7	1	20000	20000		05:30	0.7	1	20000	20000
	06:30	8.3	1	20000	20000		06:30	8.3	1	20000	20000
	07:30	16.4	1	20000	20000		07:30	16.4	1	20000	20000
	08:30	24.8	1	20000	20000		08:30	24.8	1	20000	20000
	09:30	33	1	20000	20000		09:30	33	1	20000	20000
	10:30	40.6	1	20000	20000		10:30	40.6	1	20000	20000
	11:30	46.9	1	20000	20000		11:30	46.9	1	20000	20000
	12:30	51	1	20000	20000		12:30	51	1	20000	20000
	13:30	52.1	1	20000	20000		13:30	52.1	1	20000	20000
	14:30	49.9	1	20000	20000		14:30	49.9	1	20000	20000
	15:30	44.9	1	20000	20000		15:30	44.9	1	20000	20000
	16:30	38.1	1	20000	20000		16:30	38.1	1	20000	20000
	17:30	30.2	1	20000	20000		17:30	30.2	1	20000	20000
	18:30	21.9	1	20000	20000		18:30	21.9	1	20000	20000
	19:30	13.5	1	20000	20000		19:30	13.5	1	20000	20000
	20:30	5.6	1	20000	20000		20:30	5.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 02/Aug	00:30	0	0	20000	0	Thu, 02/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.5	1	20000	20000		05:30	0.5	1	20000	20000
	06:30	8.1	1	20000	20000		06:30	8.1	1	20000	20000
	07:30	16.2	1	20000	20000		07:30	16.2	1	20000	20000
	08:30	24.6	1	20000	20000		08:30	24.6	1	20000	20000
	09:30	32.8	1	20000	20000		09:30	32.8	1	20000	20000
	10:30	40.4	1	20000	20000		10:30	40.4	1	20000	20000
	11:30	46.7	1	20000	20000		11:30	46.7	1	20000	20000
	12:30	50.8	1	20000	20000		12:30	50.8	1	20000	20000
	13:30	51.9	1	20000	20000		13:30	51.9	1	20000	20000
	14:30	49.7	1	20000	20000		14:30	49.7	1	20000	20000
	15:30	44.7	1	20000	20000		15:30	44.7	1	20000	20000
	16:30	37.9	1	20000	20000		16:30	37.9	1	20000	20000
	17:30	30	1	20000	20000		17:30	30	1	20000	20000
	18:30	21.6	1	20000	20000		18:30	21.6	1	20000	20000
	19:30	13.3	1	20000	20000		19:30	13.3	1	20000	20000
	20:30	5.4	1	20000	20000		20:30	5.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 03/Aug	00:30	0	0	20000	0	Fri, 03/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.3	1	20000	20000		05:30	0.3	1	20000	20000
	06:30	7.9	1	20000	20000		06:30	7.9	1	20000	20000
	07:30	16	1	20000	20000		07:30	16	1	20000	20000
	08:30	24.4	1	20000	20000		08:30	24.4	1	20000	20000
	09:30	32.6	1	20000	20000		09:30	32.6	1	20000	20000
	10:30	40.2	1	20000	20000		10:30	40.2	1	20000	20000
	11:30	46.5	1	20000	20000		11:30	46.5	1	20000	20000
	12:30	50.6	1	20000	20000		12:30	50.6	1	20000	20000
	13:30	51.6	1	20000	20000		13:30	51.6	1	20000	20000
	14:30	49.4	1	20000	20000		14:30	49.4	1	20000	20000
	15:30	44.5	1	20000	20000		15:30	44.5	1	20000	20000
	16:30	37.6	1	20000	20000		16:30	37.6	1	20000	20000
	17:30	29.8	1	20000	20000		17:30	29.8	1	20000	20000
	18:30	21.4	1	20000	20000		18:30	21.4	1	20000	20000
	19:30	13.1	1	20000	20000		19:30	13.1	1	20000	20000
	20:30	5.1	1	20000	20000		20:30	5.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 04/Aug	00:30	0	0	20000	0	Sat, 04/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.1	1	20000	20000		05:30	0.1	1	20000	20000
	06:30	7.6	1	20000	20000		06:30	7.6	1	20000	20000
	07:30	15.8	1	20000	20000		07:30	15.8	1	20000	20000
	08:30	24.2	1	20000	20000		08:30	24.2	1	20000	20000
	09:30	32.4	1	20000	20000		09:30	32.4	1	20000	20000
	10:30	40	1	20000	20000		10:30	40	1	20000	20000
	11:30	46.2	1	20000	20000		11:30	46.2	1	20000	20000
	12:30	50.3	1	20000	20000		12:30	50.3	1	20000	20000
	13:30	51.4	1	20000	20000		13:30	51.4	1	20000	20000
	14:30	49.2	1	20000	20000		14:30	49.2	1	20000	20000
	15:30	44.2	1	20000	20000		15:30	44.2	1	20000	20000
	16:30	37.4	1	20000	20000		16:30	37.4	1	20000	20000
	17:30	29.5	1	20000	20000		17:30	29.5	1	20000	20000
	18:30	21.2	1	20000	20000		18:30	21.2	1	20000	20000
	19:30	12.9	1	20000	20000		19:30	12.9	1	20000	20000
	20:30	4.9	1	20000	20000		20:30	4.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 05/Aug	00:30	0	0	20000	0	Sun, 05/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.4	1	20000	20000		06:30	7.4	1	20000	20000
	07:30	15.6	1	20000	20000		07:30	15.6	1	20000	20000
	08:30	24	1	20000	20000		08:30	24	1	20000	20000
	09:30	32.2	1	20000	20000		09:30	32.2	1	20000	20000
	10:30	39.7	1	20000	20000		10:30	39.7	1	20000	20000

	11:30	46	1	20000	20000		11:30	46	1	20000	20000
	12:30	50	1	20000	20000		12:30	50	1	20000	20000
	13:30	51.1	1	20000	20000		13:30	51.1	1	20000	20000
	14:30	48.9	1	20000	20000		14:30	48.9	1	20000	20000
	15:30	44	1	20000	20000		15:30	44	1	20000	20000
	16:30	37.2	1	20000	20000		16:30	37.2	1	20000	20000
	17:30	29.3	1	20000	20000		17:30	29.3	1	20000	20000
	18:30	21	1	20000	20000		18:30	21	1	20000	20000
	19:30	12.6	1	20000	20000		19:30	12.6	1	20000	20000
	20:30	4.7	1	20000	20000		20:30	4.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 06/Aug	00:30	0	0	20000	0	Mon, 06/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.2	1	20000	20000		06:30	7.2	1	20000	20000
	07:30	15.4	1	20000	20000		07:30	15.4	1	20000	20000
	08:30	23.8	1	20000	20000		08:30	23.8	1	20000	20000
	09:30	32	1	20000	20000		09:30	32	1	20000	20000
	10:30	39.5	1	20000	20000		10:30	39.5	1	20000	20000
	11:30	45.7	1	20000	20000		11:30	45.7	1	20000	20000
	12:30	49.8	1	20000	20000		12:30	49.8	1	20000	20000
	13:30	50.8	1	20000	20000		13:30	50.8	1	20000	20000
	14:30	48.6	1	20000	20000		14:30	48.6	1	20000	20000
	15:30	43.7	1	20000	20000		15:30	43.7	1	20000	20000
	16:30	36.9	1	20000	20000		16:30	36.9	1	20000	20000
	17:30	29.1	1	20000	20000		17:30	29.1	1	20000	20000
	18:30	20.7	1	20000	20000		18:30	20.7	1	20000	20000
	19:30	12.4	1	20000	20000		19:30	12.4	1	20000	20000
	20:30	4.4	1	20000	20000		20:30	4.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 07/Aug	00:30	0	0	20000	0	Tue, 07/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7	1	20000	20000		06:30	7	1	20000	20000
	07:30	15.2	1	20000	20000		07:30	15.2	1	20000	20000
	08:30	23.6	1	20000	20000		08:30	23.6	1	20000	20000
	09:30	31.8	1	20000	20000		09:30	31.8	1	20000	20000
	10:30	39.3	1	20000	20000		10:30	39.3	1	20000	20000
	11:30	45.5	1	20000	20000		11:30	45.5	1	20000	20000
	12:30	49.5	1	20000	20000		12:30	49.5	1	20000	20000
	13:30	50.6	1	20000	20000		13:30	50.6	1	20000	20000
	14:30	48.4	1	20000	20000		14:30	48.4	1	20000	20000
	15:30	43.4	1	20000	20000		15:30	43.4	1	20000	20000
	16:30	36.7	1	20000	20000		16:30	36.7	1	20000	20000
	17:30	28.8	1	20000	20000		17:30	28.8	1	20000	20000
	18:30	20.5	1	20000	20000		18:30	20.5	1	20000	20000
	19:30	12.2	1	20000	20000		19:30	12.2	1	20000	20000
	20:30	4.2	1	20000	20000		20:30	4.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 08/Aug	00:30	0	0	20000	0	Wed, 08/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.8	1	20000	20000		06:30	6.8	1	20000	20000
	07:30	15	1	20000	20000		07:30	15	1	20000	20000
	08:30	23.3	1	20000	20000		08:30	23.3	1	20000	20000
	09:30	31.5	1	20000	20000		09:30	31.5	1	20000	20000
	10:30	39.1	1	20000	20000		10:30	39.1	1	20000	20000
	11:30	45.2	1	20000	20000		11:30	45.2	1	20000	20000
	12:30	49.2	1	20000	20000		12:30	49.2	1	20000	20000
	13:30	50.3	1	20000	20000		13:30	50.3	1	20000	20000
	14:30	48.1	1	20000	20000		14:30	48.1	1	20000	20000
	15:30	43.2	1	20000	20000		15:30	43.2	1	20000	20000
	16:30	36.4	1	20000	20000		16:30	36.4	1	20000	20000
	17:30	28.6	1	20000	20000		17:30	28.6	1	20000	20000
	18:30	20.3	1	20000	20000		18:30	20.3	1	20000	20000
	19:30	11.9	1	20000	20000		19:30	11.9	1	20000	20000
	20:30	3.9	1	20000	20000		20:30	3.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 09/Aug	00:30	0	0	20000	0	Thu, 09/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.6	1	20000	20000		06:30	6.6	1	20000	20000
	07:30	14.7	1	20000	20000		07:30	14.7	1	20000	20000
	08:30	23.1	1	20000	20000		08:30	23.1	1	20000	20000
	09:30	31.3	1	20000	20000		09:30	31.3	1	20000	20000
	10:30	38.8	1	20000	20000		10:30	38.8	1	20000	20000
	11:30	45	1	20000	20000		11:30	45	1	20000	20000
	12:30	49	1	20000	20000		12:30	49	1	20000	20000
	13:30	50	1	20000	20000		13:30	50	1	20000	20000
	14:30	47.8	1	20000	20000		14:30	47.8	1	20000	20000
	15:30	42.9	1	20000	20000		15:30	42.9	1	20000	20000
	16:30	36.2	1	20000	20000		16:30	36.2	1	20000	20000
	17:30	28.3	1	20000	20000		17:30	28.3	1	20000	20000
	18:30	20	1	20000	20000		18:30	20	1	20000	20000
	19:30	11.7	1	20000	20000		19:30	11.7	1	20000	20000
	20:30	3.7	1	20000	20000		20:30	3.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 10/Aug	00:30	0	0	20000	0	Fri, 10/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.4	1	20000	20000		06:30	6.4	1	20000	20000
	07:30	14.5	1	20000	20000		07:30	14.5	1	20000	20000
	08:30	22.9	1	20000	20000		08:30	22.9	1	20000	20000
	09:30	31.1	1	20000	20000		09:30	31.1	1	20000	20000
	10:30	38.6	1	20000	20000		10:30	38.6	1	20000	20000
	11:30	44.7	1	20000	20000		11:30	44.7	1	20000	20000
	12:30	48.7	1	20000	20000		12:30	48.7	1	20000	20000
	13:30	49.7	1	20000	20000		13:30	49.7	1	20000	20000
	14:30	47.5	1	20000	20000		14:30	47.5	1	20000	20000
	15:30	42.6	1	20000	20000		15:30	42.6	1	20000	20000
	16:30	35.9	1	20000	20000		16:30	35.9	1	20000	20000
	17:30	28.1	1	20000	20000		17:30	28.1	1	20000	20000
	18:30	19.8	1	20000	20000		18:30	19.8	1	20000	20000
	19:30	11.4	1	20000	20000		19:30	11.4	1	20000	20000
	20:30	3.4	1	20000	20000		20:30	3.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 11/Aug	00:30	0	0	20000	0	Sat, 11/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0

	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.1	1	20000	20000		06:30	6.1	1	20000	20000
	07:30	14.3	1	20000	20000		07:30	14.3	1	20000	20000
	08:30	22.7	1	20000	20000		08:30	22.7	1	20000	20000
	09:30	30.9	1	20000	20000		09:30	30.9	1	20000	20000
	10:30	38.4	1	20000	20000		10:30	38.4	1	20000	20000
	11:30	44.5	1	20000	20000		11:30	44.5	1	20000	20000
	12:30	48.4	1	20000	20000		12:30	48.4	1	20000	20000
	13:30	49.4	1	20000	20000		13:30	49.4	1	20000	20000
	14:30	47.2	1	20000	20000		14:30	47.2	1	20000	20000
	15:30	42.4	1	20000	20000		15:30	42.4	1	20000	20000
	16:30	35.6	1	20000	20000		16:30	35.6	1	20000	20000
	17:30	27.8	1	20000	20000		17:30	27.8	1	20000	20000
	18:30	19.5	1	20000	20000		18:30	19.5	1	20000	20000
	19:30	11.1	1	20000	20000		19:30	11.1	1	20000	20000
	20:30	3.1	1	20000	20000		20:30	3.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 12/Aug	00:30	0	0	20000	0	Sun, 12/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.9	1	20000	20000		06:30	5.9	1	20000	20000
	07:30	14.1	1	20000	20000		07:30	14.1	1	20000	20000
	08:30	22.5	1	20000	20000		08:30	22.5	1	20000	20000
	09:30	30.7	1	20000	20000		09:30	30.7	1	20000	20000
	10:30	38.1	1	20000	20000		10:30	38.1	1	20000	20000
	11:30	44.2	1	20000	20000		11:30	44.2	1	20000	20000
	12:30	48.1	1	20000	20000		12:30	48.1	1	20000	20000
	13:30	49.1	1	20000	20000		13:30	49.1	1	20000	20000
	14:30	46.9	1	20000	20000		14:30	46.9	1	20000	20000
	15:30	42.1	1	20000	20000		15:30	42.1	1	20000	20000
	16:30	35.3	1	20000	20000		16:30	35.3	1	20000	20000
	17:30	27.5	1	20000	20000		17:30	27.5	1	20000	20000
	18:30	19.2	1	20000	20000		18:30	19.2	1	20000	20000
	19:30	10.9	1	20000	20000		19:30	10.9	1	20000	20000
	20:30	2.9	1	20000	20000		20:30	2.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 13/Aug	00:30	0	0	20000	0	Mon, 13/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.7	1	20000	20000		06:30	5.7	1	20000	20000
	07:30	13.9	1	20000	20000		07:30	13.9	1	20000	20000
	08:30	22.3	1	20000	20000		08:30	22.3	1	20000	20000
	09:30	30.4	1	20000	20000		09:30	30.4	1	20000	20000
	10:30	37.9	1	20000	20000		10:30	37.9	1	20000	20000
	11:30	44	1	20000	20000		11:30	44	1	20000	20000
	12:30	47.8	1	20000	20000		12:30	47.8	1	20000	20000
	13:30	48.8	1	20000	20000		13:30	48.8	1	20000	20000
	14:30	46.6	1	20000	20000		14:30	46.6	1	20000	20000
	15:30	41.8	1	20000	20000		15:30	41.8	1	20000	20000
	16:30	35.1	1	20000	20000		16:30	35.1	1	20000	20000
	17:30	27.3	1	20000	20000		17:30	27.3	1	20000	20000
	18:30	19	1	20000	20000		18:30	19	1	20000	20000
	19:30	10.6	1	20000	20000		19:30	10.6	1	20000	20000
	20:30	2.6	1	20000	20000		20:30	2.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 14/Aug	00:30	0	0	20000	0	Tue, 14/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.5	1	20000	20000		06:30	5.5	1	20000	20000
	07:30	13.7	1	20000	20000		07:30	13.7	1	20000	20000
	08:30	22	1	20000	20000		08:30	22	1	20000	20000
	09:30	30.2	1	20000	20000		09:30	30.2	1	20000	20000
	10:30	37.6	1	20000	20000		10:30	37.6	1	20000	20000
	11:30	43.7	1	20000	20000		11:30	43.7	1	20000	20000
	12:30	47.6	1	20000	20000		12:30	47.6	1	20000	20000
	13:30	48.5	1	20000	20000		13:30	48.5	1	20000	20000
	14:30	46.3	1	20000	20000		14:30	46.3	1	20000	20000
	15:30	41.5	1	20000	20000		15:30	41.5	1	20000	20000
	16:30	34.8	1	20000	20000		16:30	34.8	1	20000	20000
	17:30	27	1	20000	20000		17:30	27	1	20000	20000
	18:30	18.7	1	20000	20000		18:30	18.7	1	20000	20000
	19:30	10.3	1	20000	20000		19:30	10.3	1	20000	20000
	20:30	2.3	1	20000	20000		20:30	2.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 15/Aug	00:30	0	0	20000	0	Wed, 15/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.2	1	20000	20000		06:30	5.2	1	20000	20000
	07:30	13.4	1	20000	20000		07:30	13.4	1	20000	20000
	08:30	21.8	1	20000	20000		08:30	21.8	1	20000	20000
	09:30	30	1	20000	20000		09:30	30	1	20000	20000
	10:30	37.4	1	20000	20000		10:30	37.4	1	20000	20000
	11:30	43.4	1	20000	20000		11:30	43.4	1	20000	20000
	12:30	47.3	1	20000	20000		12:30	47.3	1	20000	20000
	13:30	48.2	1	20000	20000		13:30	48.2	1	20000	20000
	14:30	46	1	20000	20000		14:30	46	1	20000	20000
	15:30	41.2	1	20000	20000		15:30	41.2	1	20000	20000
	16:30	34.5	1	20000	20000		16:30	34.5	1	20000	20000
	17:30	26.7	1	20000	20000		17:30	26.7	1	20000	20000
	18:30	18.4	1	20000	20000		18:30	18.4	1	20000	20000
	19:30	10.1	1	20000	20000		19:30	10.1	1	20000	20000
	20:30	2	1	20000	20000		20:30	2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 16/Aug	00:30	0	0	20000	0	Thu, 16/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5	1	20000	20000		06:30	5	1	20000	20000
	07:30	13.2	1	20000	20000		07:30	13.2	1	20000	20000
	08:30	21.6	1	20000	20000		08:30	21.6	1	20000	20000
	09:30	29.7	1	20000	20000		09:30	29.7	1	20000	20000
	10:30	37.1	1	20000	20000		10:30	37.1	1	20000	20000
	11:30	43.1	1	20000	20000		11:30	43.1	1	20000	20000
	12:30	47	1	20000	20000		12:30	47	1	20000	20000
	13:30	47.9	1	20000	20000		13:30	47.9	1	20000	20000
	14:30	45.7	1	20000	20000		14:30	45.7	1	20000	20000
	15:30	40.9	1	20000	20000		15:30	40.9	1	20000	20000
	16:30	34.2	1	20000	20000		16:30	34.2	1	20000	20000
	17:30	26.4	1	20000	20000		17:30	26.4	1	20000	20000
	18:30	18.1	1	20000	20000		18:30	18.1	1	20000	20000
	19:30	9.8	1	20000	20000		19:30	9.8	1	20000	20000
	20:30	1.7	1	20000	20000		20:30	1.7	1	20000	20000

	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 17/Aug	00:30	0	0	20000	0	Fri, 17/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.8	1	20000	20000		06:30	4.8	1	20000	20000
	07:30	13	1	20000	20000		07:30	13	1	20000	20000
	08:30	21.4	1	20000	20000		08:30	21.4	1	20000	20000
	09:30	29.5	1	20000	20000		09:30	29.5	1	20000	20000
	10:30	36.9	1	20000	20000		10:30	36.9	1	20000	20000
	11:30	42.9	1	20000	20000		11:30	42.9	1	20000	20000
	12:30	46.7	1	20000	20000		12:30	46.7	1	20000	20000
	13:30	47.6	1	20000	20000		13:30	47.6	1	20000	20000
	14:30	45.4	1	20000	20000		14:30	45.4	1	20000	20000
	15:30	40.6	1	20000	20000		15:30	40.6	1	20000	20000
	16:30	33.9	1	20000	20000		16:30	33.9	1	20000	20000
	17:30	26.1	1	20000	20000		17:30	26.1	1	20000	20000
	18:30	17.8	1	20000	20000		18:30	17.8	1	20000	20000
	19:30	9.5	1	20000	20000		19:30	9.5	1	20000	20000
	20:30	1.4	1	20000	20000		20:30	1.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 18/Aug	00:30	0	0	20000	0	Sat, 18/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.5	1	20000	20000		06:30	4.5	1	20000	20000
	07:30	12.7	1	20000	20000		07:30	12.7	1	20000	20000
	08:30	21.1	1	20000	20000		08:30	21.1	1	20000	20000
	09:30	29.2	1	20000	20000		09:30	29.2	1	20000	20000
	10:30	36.6	1	20000	20000		10:30	36.6	1	20000	20000
	11:30	42.6	1	20000	20000		11:30	42.6	1	20000	20000
	12:30	46.4	1	20000	20000		12:30	46.4	1	20000	20000
	13:30	47.2	1	20000	20000		13:30	47.2	1	20000	20000
	14:30	45.1	1	20000	20000		14:30	45.1	1	20000	20000
	15:30	40.3	1	20000	20000		15:30	40.3	1	20000	20000
	16:30	33.6	1	20000	20000		16:30	33.6	1	20000	20000
	17:30	25.8	1	20000	20000		17:30	25.8	1	20000	20000
	18:30	17.6	1	20000	20000		18:30	17.6	1	20000	20000
	19:30	9.2	1	20000	20000		19:30	9.2	1	20000	20000
	20:30	1.1	1	20000	20000		20:30	1.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 19/Aug	00:30	0	0	20000	0	Sun, 19/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.3	1	20000	20000		06:30	4.3	1	20000	20000
	07:30	12.5	1	20000	20000		07:30	12.5	1	20000	20000
	08:30	20.9	1	20000	20000		08:30	20.9	1	20000	20000
	09:30	29	1	20000	20000		09:30	29	1	20000	20000
	10:30	36.4	1	20000	20000		10:30	36.4	1	20000	20000
	11:30	42.3	1	20000	20000		11:30	42.3	1	20000	20000
	12:30	46	1	20000	20000		12:30	46	1	20000	20000
	13:30	46.9	1	20000	20000		13:30	46.9	1	20000	20000
	14:30	44.7	1	20000	20000		14:30	44.7	1	20000	20000
	15:30	39.9	1	20000	20000		15:30	39.9	1	20000	20000
	16:30	33.3	1	20000	20000		16:30	33.3	1	20000	20000
	17:30	25.5	1	20000	20000		17:30	25.5	1	20000	20000
	18:30	17.3	1	20000	20000		18:30	17.3	1	20000	20000
	19:30	8.9	1	20000	20000		19:30	8.9	1	20000	20000
	20:30	0.8	1	20000	20000		20:30	0.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 20/Aug	00:30	0	0	20000	0	Mon, 20/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4	1	20000	20000		06:30	4	1	20000	20000
	07:30	12.3	1	20000	20000		07:30	12.3	1	20000	20000
	08:30	20.7	1	20000	20000		08:30	20.7	1	20000	20000
	09:30	28.8	1	20000	20000		09:30	28.8	1	20000	20000
	10:30	36.1	1	20000	20000		10:30	36.1	1	20000	20000
	11:30	42	1	20000	20000		11:30	42	1	20000	20000
	12:30	45.7	1	20000	20000		12:30	45.7	1	20000	20000
	13:30	46.6	1	20000	20000		13:30	46.6	1	20000	20000
	14:30	44.4	1	20000	20000		14:30	44.4	1	20000	20000
	15:30	39.6	1	20000	20000		15:30	39.6	1	20000	20000
	16:30	33	1	20000	20000		16:30	33	1	20000	20000
	17:30	25.2	1	20000	20000		17:30	25.2	1	20000	20000
	18:30	17	1	20000	20000		18:30	17	1	20000	20000
	19:30	8.6	1	20000	20000		19:30	8.6	1	20000	20000
	20:30	0.5	1	20000	20000		20:30	0.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 21/Aug	00:30	0	0	20000	0	Tue, 21/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.8	1	20000	20000		06:30	3.8	1	20000	20000
	07:30	12	1	20000	20000		07:30	12	1	20000	20000
	08:30	20.4	1	20000	20000		08:30	20.4	1	20000	20000
	09:30	28.5	1	20000	20000		09:30	28.5	1	20000	20000
	10:30	35.8	1	20000	20000		10:30	35.8	1	20000	20000
	11:30	41.7	1	20000	20000		11:30	41.7	1	20000	20000
	12:30	45.4	1	20000	20000		12:30	45.4	1	20000	20000
	13:30	46.3	1	20000	20000		13:30	46.3	1	20000	20000
	14:30	44.1	1	20000	20000		14:30	44.1	1	20000	20000
	15:30	39.3	1	20000	20000		15:30	39.3	1	20000	20000
	16:30	32.7	1	20000	20000		16:30	32.7	1	20000	20000
	17:30	24.9	1	20000	20000		17:30	24.9	1	20000	20000
	18:30	16.7	1	20000	20000		18:30	16.7	1	20000	20000
	19:30	8.3	1	20000	20000		19:30	8.3	1	20000	20000
	20:30	0.2	1	20000	20000		20:30	0.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 22/Aug	00:30	0	0	20000	0	Wed, 22/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.6	1	20000	20000		06:30	3.6	1	20000	20000
	07:30	11.8	1	20000	20000		07:30	11.8	1	20000	20000
	08:30	20.2	1	20000	20000		08:30	20.2	1	20000	20000
	09:30	28.3	1	20000	20000		09:30	28.3	1	20000	20000
	10:30	35.6	1	20000	20000		10:30	35.6	1	20000	20000
	11:30	41.4	1	20000	20000		11:30	41.4	1	20000	20000
	12:30	45.1	1	20000	20000		12:30	45.1	1	20000	20000
	13:30	45.9	1	20000	20000		13:30	45.9	1	20000	20000

	14:30	43.7	1	20000	20000		14:30	43.7	1	20000	20000
	15:30	39	1	20000	20000		15:30	39	1	20000	20000
	16:30	32.3	1	20000	20000		16:30	32.3	1	20000	20000
	17:30	24.6	1	20000	20000		17:30	24.6	1	20000	20000
	18:30	16.3	1	20000	20000		18:30	16.3	1	20000	20000
	19:30	8	1	20000	20000		19:30	8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 23/Aug	00:30	0	0	20000	0	Thu, 23/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.3	1	20000	20000		06:30	3.3	1	20000	20000
	07:30	11.6	1	20000	20000		07:30	11.6	1	20000	20000
	08:30	19.9	1	20000	20000		08:30	19.9	1	20000	20000
	09:30	28	1	20000	20000		09:30	28	1	20000	20000
	10:30	35.3	1	20000	20000		10:30	35.3	1	20000	20000
	11:30	41.1	1	20000	20000		11:30	41.1	1	20000	20000
	12:30	44.8	1	20000	20000		12:30	44.8	1	20000	20000
	13:30	45.6	1	20000	20000		13:30	45.6	1	20000	20000
	14:30	43.4	1	20000	20000		14:30	43.4	1	20000	20000
	15:30	38.6	1	20000	20000		15:30	38.6	1	20000	20000
	16:30	32	1	20000	20000		16:30	32	1	20000	20000
	17:30	24.3	1	20000	20000		17:30	24.3	1	20000	20000
	18:30	16	1	20000	20000		18:30	16	1	20000	20000
	19:30	7.7	1	20000	20000		19:30	7.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 24/Aug	00:30	0	0	20000	0	Fri, 24/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.1	1	20000	20000		06:30	3.1	1	20000	20000
	07:30	11.3	1	20000	20000		07:30	11.3	1	20000	20000
	08:30	19.7	1	20000	20000		08:30	19.7	1	20000	20000
	09:30	27.8	1	20000	20000		09:30	27.8	1	20000	20000
	10:30	35	1	20000	20000		10:30	35	1	20000	20000
	11:30	40.8	1	20000	20000		11:30	40.8	1	20000	20000
	12:30	44.5	1	20000	20000		12:30	44.5	1	20000	20000
	13:30	45.2	1	20000	20000		13:30	45.2	1	20000	20000
	14:30	43	1	20000	20000		14:30	43	1	20000	20000
	15:30	38.3	1	20000	20000		15:30	38.3	1	20000	20000
	16:30	31.7	1	20000	20000		16:30	31.7	1	20000	20000
	17:30	24	1	20000	20000		17:30	24	1	20000	20000
	18:30	15.7	1	20000	20000		18:30	15.7	1	20000	20000
	19:30	7.3	1	20000	20000		19:30	7.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 25/Aug	00:30	0	0	20000	0	Sat, 25/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.8	1	20000	20000		06:30	2.8	1	20000	20000
	07:30	11.1	1	20000	20000		07:30	11.1	1	20000	20000
	08:30	19.5	1	20000	20000		08:30	19.5	1	20000	20000
	09:30	27.5	1	20000	20000		09:30	27.5	1	20000	20000
	10:30	34.8	1	20000	20000		10:30	34.8	1	20000	20000
	11:30	40.5	1	20000	20000		11:30	40.5	1	20000	20000
	12:30	44.1	1	20000	20000		12:30	44.1	1	20000	20000
	13:30	44.9	1	20000	20000		13:30	44.9	1	20000	20000
	14:30	42.7	1	20000	20000		14:30	42.7	1	20000	20000
	15:30	37.9	1	20000	20000		15:30	37.9	1	20000	20000
	16:30	31.4	1	20000	20000		16:30	31.4	1	20000	20000
	17:30	23.7	1	20000	20000		17:30	23.7	1	20000	20000
	18:30	15.4	1	20000	20000		18:30	15.4	1	20000	20000
	19:30	7	1	20000	20000		19:30	7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 26/Aug	00:30	0	0	20000	0	Sun, 26/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.6	1	20000	20000		06:30	2.6	1	20000	20000
	07:30	10.9	1	20000	20000		07:30	10.9	1	20000	20000
	08:30	19.2	1	20000	20000		08:30	19.2	1	20000	20000
	09:30	27.3	1	20000	20000		09:30	27.3	1	20000	20000
	10:30	34.5	1	20000	20000		10:30	34.5	1	20000	20000
	11:30	40.2	1	20000	20000		11:30	40.2	1	20000	20000
	12:30	43.8	1	20000	20000		12:30	43.8	1	20000	20000
	13:30	44.6	1	20000	20000		13:30	44.6	1	20000	20000
	14:30	42.3	1	20000	20000		14:30	42.3	1	20000	20000
	15:30	37.6	1	20000	20000		15:30	37.6	1	20000	20000
	16:30	31	1	20000	20000		16:30	31	1	20000	20000
	17:30	23.3	1	20000	20000		17:30	23.3	1	20000	20000
	18:30	15.1	1	20000	20000		18:30	15.1	1	20000	20000
	19:30	6.7	1	20000	20000		19:30	6.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 27/Aug	00:30	0	0	20000	0	Mon, 27/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.3	1	20000	20000		06:30	2.3	1	20000	20000
	07:30	10.6	1	20000	20000		07:30	10.6	1	20000	20000
	08:30	19	1	20000	20000		08:30	19	1	20000	20000
	09:30	27	1	20000	20000		09:30	27	1	20000	20000
	10:30	34.2	1	20000	20000		10:30	34.2	1	20000	20000
	11:30	39.9	1	20000	20000		11:30	39.9	1	20000	20000
	12:30	43.5	1	20000	20000		12:30	43.5	1	20000	20000
	13:30	44.2	1	20000	20000		13:30	44.2	1	20000	20000
	14:30	42	1	20000	20000		14:30	42	1	20000	20000
	15:30	37.3	1	20000	20000		15:30	37.3	1	20000	20000
	16:30	30.7	1	20000	20000		16:30	30.7	1	20000	20000
	17:30	23	1	20000	20000		17:30	23	1	20000	20000
	18:30	14.7	1	20000	20000		18:30	14.7	1	20000	20000
	19:30	6.4	1	20000	20000		19:30	6.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 28/Aug	00:30	0	0	20000	0	Tue, 28/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.1	1	20000	20000		06:30	2.1	1	20000	20000

	07:30	10.4	1	20000	20000		07:30	10.4	1	20000	20000
	08:30	18.7	1	20000	20000		08:30	18.7	1	20000	20000
	09:30	26.7	1	20000	20000		09:30	26.7	1	20000	20000
	10:30	33.9	1	20000	20000		10:30	33.9	1	20000	20000
	11:30	39.6	1	20000	20000		11:30	39.6	1	20000	20000
	12:30	43.1	1	20000	20000		12:30	43.1	1	20000	20000
	13:30	43.9	1	20000	20000		13:30	43.9	1	20000	20000
	14:30	41.6	1	20000	20000		14:30	41.6	1	20000	20000
	15:30	36.9	1	20000	20000		15:30	36.9	1	20000	20000
	16:30	30.3	1	20000	20000		16:30	30.3	1	20000	20000
	17:30	22.7	1	20000	20000		17:30	22.7	1	20000	20000
	18:30	14.4	1	20000	20000		18:30	14.4	1	20000	20000
	19:30	6	1	20000	20000		19:30	6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 29/Aug	00:30	0	0	20000	0	Wed, 29/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.8	1	20000	20000		06:30	1.8	1	20000	20000
	07:30	10.1	1	20000	20000		07:30	10.1	1	20000	20000
	08:30	18.5	1	20000	20000		08:30	18.5	1	20000	20000
	09:30	26.5	1	20000	20000		09:30	26.5	1	20000	20000
	10:30	33.6	1	20000	20000		10:30	33.6	1	20000	20000
	11:30	39.3	1	20000	20000		11:30	39.3	1	20000	20000
	12:30	42.8	1	20000	20000		12:30	42.8	1	20000	20000
	13:30	43.5	1	20000	20000		13:30	43.5	1	20000	20000
	14:30	41.3	1	20000	20000		14:30	41.3	1	20000	20000
	15:30	36.5	1	20000	20000		15:30	36.5	1	20000	20000
	16:30	30	1	20000	20000		16:30	30	1	20000	20000
	17:30	22.3	1	20000	20000		17:30	22.3	1	20000	20000
	18:30	14.1	1	20000	20000		18:30	14.1	1	20000	20000
	19:30	5.7	1	20000	20000		19:30	5.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 30/Aug	00:30	0	0	20000	0	Thu, 30/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.6	1	20000	20000		06:30	1.6	1	20000	20000
	07:30	9.9	1	20000	20000		07:30	9.9	1	20000	20000
	08:30	18.2	1	20000	20000		08:30	18.2	1	20000	20000
	09:30	26.2	1	20000	20000		09:30	26.2	1	20000	20000
	10:30	33.4	1	20000	20000		10:30	33.4	1	20000	20000
	11:30	39	1	20000	20000		11:30	39	1	20000	20000
	12:30	42.5	1	20000	20000		12:30	42.5	1	20000	20000
	13:30	43.1	1	20000	20000		13:30	43.1	1	20000	20000
	14:30	40.9	1	20000	20000		14:30	40.9	1	20000	20000
	15:30	36.2	1	20000	20000		15:30	36.2	1	20000	20000
	16:30	29.7	1	20000	20000		16:30	29.7	1	20000	20000
	17:30	22	1	20000	20000		17:30	22	1	20000	20000
	18:30	13.7	1	20000	20000		18:30	13.7	1	20000	20000
	19:30	5.4	1	20000	20000		19:30	5.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 31/Aug	00:30	0	0	20000	0	Fri, 31/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.3	1	20000	20000		06:30	1.3	1	20000	20000
	07:30	9.6	1	20000	20000		07:30	9.6	1	20000	20000
	08:30	18	1	20000	20000		08:30	18	1	20000	20000
	09:30	26	1	20000	20000		09:30	26	1	20000	20000
	10:30	33.1	1	20000	20000		10:30	33.1	1	20000	20000
	11:30	38.7	1	20000	20000		11:30	38.7	1	20000	20000
	12:30	42.1	1	20000	20000		12:30	42.1	1	20000	20000
	13:30	42.8	1	20000	20000		13:30	42.8	1	20000	20000
	14:30	40.5	1	20000	20000		14:30	40.5	1	20000	20000
	15:30	35.8	1	20000	20000		15:30	35.8	1	20000	20000
	16:30	29.3	1	20000	20000		16:30	29.3	1	20000	20000
	17:30	21.6	1	20000	20000		17:30	21.6	1	20000	20000
	18:30	13.4	1	20000	20000		18:30	13.4	1	20000	20000
	19:30	5	1	20000	20000		19:30	5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 01/Sep	00:30	0	0	20000	0	Sat, 01/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.1	1	20000	20000		06:30	1.1	1	20000	20000
	07:30	9.4	1	20000	20000		07:30	9.4	1	20000	20000
	08:30	17.7	1	20000	20000		08:30	17.7	1	20000	20000
	09:30	25.7	1	20000	20000		09:30	25.7	1	20000	20000
	10:30	32.8	1	20000	20000		10:30	32.8	1	20000	20000
	11:30	38.4	1	20000	20000		11:30	38.4	1	20000	20000
	12:30	41.8	1	20000	20000		12:30	41.8	1	20000	20000
	13:30	42.4	1	20000	20000		13:30	42.4	1	20000	20000
	14:30	40.2	1	20000	20000		14:30	40.2	1	20000	20000
	15:30	35.5	1	20000	20000		15:30	35.5	1	20000	20000
	16:30	28.9	1	20000	20000		16:30	28.9	1	20000	20000
	17:30	21.3	1	20000	20000		17:30	21.3	1	20000	20000
	18:30	13.1	1	20000	20000		18:30	13.1	1	20000	20000
	19:30	4.7	1	20000	20000		19:30	4.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 02/Sep	00:30	0	0	20000	0	Sun, 02/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.8	1	20000	20000		06:30	0.8	1	20000	20000
	07:30	9.1	1	20000	20000		07:30	9.1	1	20000	20000
	08:30	17.5	1	20000	20000		08:30	17.5	1	20000	20000
	09:30	25.4	1	20000	20000		09:30	25.4	1	20000	20000
	10:30	32.5	1	20000	20000		10:30	32.5	1	20000	20000
	11:30	38.1	1	20000	20000		11:30	38.1	1	20000	20000
	12:30	41.4	1	20000	20000		12:30	41.4	1	20000	20000
	13:30	42.1	1	20000	20000		13:30	42.1	1	20000	20000
	14:30	39.8	1	20000	20000		14:30	39.8	1	20000	20000
	15:30	35.1	1	20000	20000		15:30	35.1	1	20000	20000
	16:30	28.6	1	20000	20000		16:30	28.6	1	20000	20000
	17:30	20.9	1	20000	20000		17:30	20.9	1	20000	20000
	18:30	12.7	1	20000	20000		18:30	12.7	1	20000	20000
	19:30	4.3	1	20000	20000		19:30	4.3	1	20000	20000
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	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0

Mon, 03/Sep	00:30	0	0	20000	0	Mon, 03/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.5	1	20000	20000		06:30	0.5	1	20000	20000
	07:30	8.9	1	20000	20000		07:30	8.9	1	20000	20000
	08:30	17.2	1	20000	20000		08:30	17.2	1	20000	20000
	09:30	25.2	1	20000	20000		09:30	25.2	1	20000	20000
	10:30	32.2	1	20000	20000		10:30	32.2	1	20000	20000
	11:30	37.7	1	20000	20000		11:30	37.7	1	20000	20000
	12:30	41.1	1	20000	20000		12:30	41.1	1	20000	20000
	13:30	41.7	1	20000	20000		13:30	41.7	1	20000	20000
	14:30	39.4	1	20000	20000		14:30	39.4	1	20000	20000
	15:30	34.7	1	20000	20000		15:30	34.7	1	20000	20000
	16:30	28.2	1	20000	20000		16:30	28.2	1	20000	20000
	17:30	20.6	1	20000	20000		17:30	20.6	1	20000	20000
	18:30	12.4	1	20000	20000		18:30	12.4	1	20000	20000
	19:30	4	1	20000	20000		19:30	4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 04/Sep	00:30	0	0	20000	0	Tue, 04/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.3	1	20000	20000		06:30	0.3	1	20000	20000
	07:30	8.6	1	20000	20000		07:30	8.6	1	20000	20000
	08:30	17	1	20000	20000		08:30	17	1	20000	20000
	09:30	24.9	1	20000	20000		09:30	24.9	1	20000	20000
	10:30	31.9	1	20000	20000		10:30	31.9	1	20000	20000
	11:30	37.4	1	20000	20000		11:30	37.4	1	20000	20000
	12:30	40.7	1	20000	20000		12:30	40.7	1	20000	20000
	13:30	41.3	1	20000	20000		13:30	41.3	1	20000	20000
	14:30	39.1	1	20000	20000		14:30	39.1	1	20000	20000
	15:30	34.4	1	20000	20000		15:30	34.4	1	20000	20000
	16:30	27.9	1	20000	20000		16:30	27.9	1	20000	20000
	17:30	20.2	1	20000	20000		17:30	20.2	1	20000	20000
	18:30	12	1	20000	20000		18:30	12	1	20000	20000
	19:30	3.6	1	20000	20000		19:30	3.6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 05/Sep	00:30	0	0	20000	0	Wed, 05/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.4	1	20000	20000		07:30	8.4	1	20000	20000
	08:30	16.7	1	20000	20000		08:30	16.7	1	20000	20000
	09:30	24.6	1	20000	20000		09:30	24.6	1	20000	20000
	10:30	31.6	1	20000	20000		10:30	31.6	1	20000	20000
	11:30	37.1	1	20000	20000		11:30	37.1	1	20000	20000
	12:30	40.4	1	20000	20000		12:30	40.4	1	20000	20000
	13:30	40.9	1	20000	20000		13:30	40.9	1	20000	20000
	14:30	38.7	1	20000	20000		14:30	38.7	1	20000	20000
	15:30	34	1	20000	20000		15:30	34	1	20000	20000
	16:30	27.5	1	20000	20000		16:30	27.5	1	20000	20000
	17:30	19.9	1	20000	20000		17:30	19.9	1	20000	20000
	18:30	11.7	1	20000	20000		18:30	11.7	1	20000	20000
	19:30	3.3	1	20000	20000		19:30	3.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 06/Sep	00:30	0	0	20000	0	Thu, 06/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.1	1	20000	20000		07:30	8.1	1	20000	20000
	08:30	16.4	1	20000	20000		08:30	16.4	1	20000	20000
	09:30	24.3	1	20000	20000		09:30	24.3	1	20000	20000
	10:30	31.3	1	20000	20000		10:30	31.3	1	20000	20000
	11:30	36.8	1	20000	20000		11:30	36.8	1	20000	20000
	12:30	40	1	20000	20000		12:30	40	1	20000	20000
	13:30	40.6	1	20000	20000		13:30	40.6	1	20000	20000
	14:30	38.3	1	20000	20000		14:30	38.3	1	20000	20000
	15:30	33.6	1	20000	20000		15:30	33.6	1	20000	20000
	16:30	27.1	1	20000	20000		16:30	27.1	1	20000	20000
	17:30	19.5	1	20000	20000		17:30	19.5	1	20000	20000
	18:30	11.3	1	20000	20000		18:30	11.3	1	20000	20000
	19:30	2.9	1	20000	20000		19:30	2.9	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 07/Sep	00:30	0	0	20000	0	Fri, 07/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.8	1	20000	20000		07:30	7.8	1	20000	20000
	08:30	16.2	1	20000	20000		08:30	16.2	1	20000	20000
	09:30	24.1	1	20000	20000		09:30	24.1	1	20000	20000
	10:30	31	1	20000	20000		10:30	31	1	20000	20000
	11:30	36.4	1	20000	20000		11:30	36.4	1	20000	20000
	12:30	39.7	1	20000	20000		12:30	39.7	1	20000	20000
	13:30	40.2	1	20000	20000		13:30	40.2	1	20000	20000
	14:30	37.9	1	20000	20000		14:30	37.9	1	20000	20000
	15:30	33.2	1	20000	20000		15:30	33.2	1	20000	20000
	16:30	26.8	1	20000	20000		16:30	26.8	1	20000	20000
	17:30	19.2	1	20000	20000		17:30	19.2	1	20000	20000
	18:30	10.9	1	20000	20000		18:30	10.9	1	20000	20000
	19:30	2.6	1	20000	20000		19:30	2.6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 08/Sep	00:30	0	0	20000	0	Sat, 08/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.6	1	20000	20000		07:30	7.6	1	20000	20000
	08:30	15.9	1	20000	20000		08:30	15.9	1	20000	20000
	09:30	23.8	1	20000	20000		09:30	23.8	1	20000	20000
	10:30	30.7	1	20000	20000		10:30	30.7	1	20000	20000
	11:30	36.1	1	20000	20000		11:30	36.1	1	20000	20000
	12:30	39.3	1	20000	20000		12:30	39.3	1	20000	20000
	13:30	39.8	1	20000	20000		13:30	39.8	1	20000	20000
	14:30	37.5	1	20000	20000		14:30	37.5	1	20000	20000
	15:30	32.9	1	20000	20000		15:30	32.9	1	20000	20000
	16:30	26.4	1	20000	20000		16:30	26.4	1	20000	20000

	17:30	18.8	1	20000	20000		17:30	18.8	1	20000	20000
	18:30	10.6	1	20000	20000		18:30	10.6	1	20000	20000
	19:30	2.2	1	20000	20000		19:30	2.2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 09/Sep	00:30	0	0	20000	0	Sun, 09/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.3	1	20000	20000		07:30	7.3	1	20000	20000
	08:30	15.6	1	20000	20000		08:30	15.6	1	20000	20000
	09:30	23.5	1	20000	20000		09:30	23.5	1	20000	20000
	10:30	30.4	1	20000	20000		10:30	30.4	1	20000	20000
	11:30	35.8	1	20000	20000		11:30	35.8	1	20000	20000
	12:30	38.9	1	20000	20000		12:30	38.9	1	20000	20000
	13:30	39.4	1	20000	20000		13:30	39.4	1	20000	20000
	14:30	37.2	1	20000	20000		14:30	37.2	1	20000	20000
	15:30	32.5	1	20000	20000		15:30	32.5	1	20000	20000
	16:30	26	1	20000	20000		16:30	26	1	20000	20000
	17:30	18.4	1	20000	20000		17:30	18.4	1	20000	20000
	18:30	10.2	1	20000	20000		18:30	10.2	1	20000	20000
	19:30	1.8	1	20000	20000		19:30	1.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 10/Sep	00:30	0	0	20000	0	Mon, 10/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.1	1	20000	20000		07:30	7.1	1	20000	20000
	08:30	15.4	1	20000	20000		08:30	15.4	1	20000	20000
	09:30	23.2	1	20000	20000		09:30	23.2	1	20000	20000
	10:30	30.1	1	20000	20000		10:30	30.1	1	20000	20000
	11:30	35.4	1	20000	20000		11:30	35.4	1	20000	20000
	12:30	38.6	1	20000	20000		12:30	38.6	1	20000	20000
	13:30	39.1	1	20000	20000		13:30	39.1	1	20000	20000
	14:30	36.8	1	20000	20000		14:30	36.8	1	20000	20000
	15:30	32.1	1	20000	20000		15:30	32.1	1	20000	20000
	16:30	25.7	1	20000	20000		16:30	25.7	1	20000	20000
	17:30	18.1	1	20000	20000		17:30	18.1	1	20000	20000
	18:30	9.9	1	20000	20000		18:30	9.9	1	20000	20000
	19:30	1.5	1	20000	20000		19:30	1.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 11/Sep	00:30	0	0	20000	0	Tue, 11/Sep	00:30	0	0	20000	0
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	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.8	1	20000	20000		07:30	6.8	1	20000	20000
	08:30	15.1	1	20000	20000		08:30	15.1	1	20000	20000
	09:30	22.9	1	20000	20000		09:30	22.9	1	20000	20000
	10:30	29.8	1	20000	20000		10:30	29.8	1	20000	20000
	11:30	35.1	1	20000	20000		11:30	35.1	1	20000	20000
	12:30	38.2	1	20000	20000		12:30	38.2	1	20000	20000
	13:30	38.7	1	20000	20000		13:30	38.7	1	20000	20000
	14:30	36.4	1	20000	20000		14:30	36.4	1	20000	20000
	15:30	31.7	1	20000	20000		15:30	31.7	1	20000	20000
	16:30	25.3	1	20000	20000		16:30	25.3	1	20000	20000
	17:30	17.7	1	20000	20000		17:30	17.7	1	20000	20000
	18:30	9.5	1	20000	20000		18:30	9.5	1	20000	20000
	19:30	1.1	1	20000	20000		19:30	1.1	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 12/Sep	00:30	0	0	20000	0	Wed, 12/Sep	00:30	0	0	20000	0
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	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.5	1	20000	20000		07:30	6.5	1	20000	20000
	08:30	14.8	1	20000	20000		08:30	14.8	1	20000	20000
	09:30	22.7	1	20000	20000		09:30	22.7	1	20000	20000
	10:30	29.5	1	20000	20000		10:30	29.5	1	20000	20000
	11:30	34.8	1	20000	20000		11:30	34.8	1	20000	20000
	12:30	37.9	1	20000	20000		12:30	37.9	1	20000	20000
	13:30	38.3	1	20000	20000		13:30	38.3	1	20000	20000
	14:30	36	1	20000	20000		14:30	36	1	20000	20000
	15:30	31.3	1	20000	20000		15:30	31.3	1	20000	20000
	16:30	24.9	1	20000	20000		16:30	24.9	1	20000	20000
	17:30	17.3	1	20000	20000		17:30	17.3	1	20000	20000
	18:30	9.1	1	20000	20000		18:30	9.1	1	20000	20000
	19:30	0.8	1	20000	20000		19:30	0.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 13/Sep	00:30	0	0	20000	0	Thu, 13/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.3	1	20000	20000		07:30	6.3	1	20000	20000
	08:30	14.6	1	20000	20000		08:30	14.6	1	20000	20000
	09:30	22.4	1	20000	20000		09:30	22.4	1	20000	20000
	10:30	29.2	1	20000	20000		10:30	29.2	1	20000	20000
	11:30	34.4	1	20000	20000		11:30	34.4	1	20000	20000
	12:30	37.5	1	20000	20000		12:30	37.5	1	20000	20000
	13:30	37.9	1	20000	20000		13:30	37.9	1	20000	20000
	14:30	35.6	1	20000	20000		14:30	35.6	1	20000	20000
	15:30	30.9	1	20000	20000		15:30	30.9	1	20000	20000
	16:30	24.5	1	20000	20000		16:30	24.5	1	20000	20000
	17:30	17	1	20000	20000		17:30	17	1	20000	20000
	18:30	8.8	1	20000	20000		18:30	8.8	1	20000	20000
	19:30	0.4	1	20000	20000		19:30	0.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 14/Sep	00:30	0	0	20000	0	Fri, 14/Sep	00:30	0	0	20000	0
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	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	08:30	14.3	1	20000	20000		08:30	14.3	1	20000	20000
	09:30	22.1	1	20000	20000		09:30	22.1	1	20000	20000

	10:30	28.9	1	20000	20000		10:30	28.9	1	20000	20000
	11:30	34.1	1	20000	20000		11:30	34.1	1	20000	20000
	12:30	37.1	1	20000	20000		12:30	37.1	1	20000	20000
	13:30	37.5	1	20000	20000		13:30	37.5	1	20000	20000
	14:30	35.2	1	20000	20000		14:30	35.2	1	20000	20000
	15:30	30.5	1	20000	20000		15:30	30.5	1	20000	20000
	16:30	24.1	1	20000	20000		16:30	24.1	1	20000	20000
	17:30	16.6	1	20000	20000		17:30	16.6	1	20000	20000
	18:30	8.4	1	20000	20000		18:30	8.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 15/Sep	00:30	0	0	20000	0	Sat, 15/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.8	1	20000	20000		07:30	5.8	1	20000	20000
	08:30	14	1	20000	20000		08:30	14	1	20000	20000
	09:30	21.8	1	20000	20000		09:30	21.8	1	20000	20000
	10:30	28.6	1	20000	20000		10:30	28.6	1	20000	20000
	11:30	33.8	1	20000	20000		11:30	33.8	1	20000	20000
	12:30	36.8	1	20000	20000		12:30	36.8	1	20000	20000
	13:30	37.1	1	20000	20000		13:30	37.1	1	20000	20000
	14:30	34.8	1	20000	20000		14:30	34.8	1	20000	20000
	15:30	30.2	1	20000	20000		15:30	30.2	1	20000	20000
	16:30	23.8	1	20000	20000		16:30	23.8	1	20000	20000
	17:30	16.2	1	20000	20000		17:30	16.2	1	20000	20000
	18:30	8	1	20000	20000		18:30	8	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 16/Sep	00:30	0	0	20000	0	Sun, 16/Sep	00:30	0	0	20000	0
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	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.5	1	20000	20000		07:30	5.5	1	20000	20000
	08:30	13.8	1	20000	20000		08:30	13.8	1	20000	20000
	09:30	21.5	1	20000	20000		09:30	21.5	1	20000	20000
	10:30	28.3	1	20000	20000		10:30	28.3	1	20000	20000
	11:30	33.4	1	20000	20000		11:30	33.4	1	20000	20000
	12:30	36.4	1	20000	20000		12:30	36.4	1	20000	20000
	13:30	36.7	1	20000	20000		13:30	36.7	1	20000	20000
	14:30	34.4	1	20000	20000		14:30	34.4	1	20000	20000
	15:30	29.8	1	20000	20000		15:30	29.8	1	20000	20000
	16:30	23.4	1	20000	20000		16:30	23.4	1	20000	20000
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	18:30	7.7	1	20000	20000		18:30	7.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 17/Sep	00:30	0	0	20000	0	Mon, 17/Sep	00:30	0	0	20000	0
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	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.2	1	20000	20000		07:30	5.2	1	20000	20000
	08:30	13.5	1	20000	20000		08:30	13.5	1	20000	20000
	09:30	21.2	1	20000	20000		09:30	21.2	1	20000	20000
	10:30	27.9	1	20000	20000		10:30	27.9	1	20000	20000
	11:30	33.1	1	20000	20000		11:30	33.1	1	20000	20000
	12:30	36	1	20000	20000		12:30	36	1	20000	20000
	13:30	36.3	1	20000	20000		13:30	36.3	1	20000	20000
	14:30	34	1	20000	20000		14:30	34	1	20000	20000
	15:30	29.4	1	20000	20000		15:30	29.4	1	20000	20000
	16:30	23	1	20000	20000		16:30	23	1	20000	20000
	17:30	15.5	1	20000	20000		17:30	15.5	1	20000	20000
	18:30	7.3	1	20000	20000		18:30	7.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 18/Sep	00:30	0	0	20000	0	Tue, 18/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5	1	20000	20000		07:30	5	1	20000	20000
	08:30	13.2	1	20000	20000		08:30	13.2	1	20000	20000
	09:30	20.9	1	20000	20000		09:30	20.9	1	20000	20000
	10:30	27.6	1	20000	20000		10:30	27.6	1	20000	20000
	11:30	32.7	1	20000	20000		11:30	32.7	1	20000	20000
	12:30	35.6	1	20000	20000		12:30	35.6	1	20000	20000
	13:30	36	1	20000	20000		13:30	36	1	20000	20000
	14:30	33.6	1	20000	20000		14:30	33.6	1	20000	20000
	15:30	29	1	20000	20000		15:30	29	1	20000	20000
	16:30	22.6	1	20000	20000		16:30	22.6	1	20000	20000
	17:30	15.1	1	20000	20000		17:30	15.1	1	20000	20000
	18:30	6.9	1	20000	20000		18:30	6.9	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 19/Sep	00:30	0	0	20000	0	Wed, 19/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.7	1	20000	20000		07:30	4.7	1	20000	20000
	08:30	12.9	1	20000	20000		08:30	12.9	1	20000	20000
	09:30	20.6	1	20000	20000		09:30	20.6	1	20000	20000
	10:30	27.3	1	20000	20000		10:30	27.3	1	20000	20000
	11:30	32.4	1	20000	20000		11:30	32.4	1	20000	20000
	12:30	35.3	1	20000	20000		12:30	35.3	1	20000	20000
	13:30	35.6	1	20000	20000		13:30	35.6	1	20000	20000
	14:30	33.2	1	20000	20000		14:30	33.2	1	20000	20000
	15:30	28.6	1	20000	20000		15:30	28.6	1	20000	20000
	16:30	22.2	1	20000	20000		16:30	22.2	1	20000	20000
	17:30	14.7	1	20000	20000		17:30	14.7	1	20000	20000
	18:30	6.5	1	20000	20000		18:30	6.5	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 20/Sep	00:30	0	0	20000	0	Thu, 20/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0

	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.4	1	20000	20000		07:30	4.4	1	20000	20000
	08:30	12.7	1	20000	20000		08:30	12.7	1	20000	20000
	09:30	20.3	1	20000	20000		09:30	20.3	1	20000	20000
	10:30	27	1	20000	20000		10:30	27	1	20000	20000
	11:30	32	1	20000	20000		11:30	32	1	20000	20000
	12:30	34.9	1	20000	20000		12:30	34.9	1	20000	20000
	13:30	35.2	1	20000	20000		13:30	35.2	1	20000	20000
	14:30	32.8	1	20000	20000		14:30	32.8	1	20000	20000
	15:30	28.2	1	20000	20000		15:30	28.2	1	20000	20000
	16:30	21.8	1	20000	20000		16:30	21.8	1	20000	20000
	17:30	14.3	1	20000	20000		17:30	14.3	1	20000	20000
	18:30	6.2	1	20000	20000		18:30	6.2	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 21/Sep	00:30	0	0	20000	0	Fri, 21/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.2	1	20000	20000		07:30	4.2	1	20000	20000
	08:30	12.4	1	20000	20000		08:30	12.4	1	20000	20000
	09:30	20.1	1	20000	20000		09:30	20.1	1	20000	20000
	10:30	26.7	1	20000	20000		10:30	26.7	1	20000	20000
	11:30	31.7	1	20000	20000		11:30	31.7	1	20000	20000
	12:30	34.5	1	20000	20000		12:30	34.5	1	20000	20000
	13:30	34.8	1	20000	20000		13:30	34.8	1	20000	20000
	14:30	32.4	1	20000	20000		14:30	32.4	1	20000	20000
	15:30	27.8	1	20000	20000		15:30	27.8	1	20000	20000
	16:30	21.5	1	20000	20000		16:30	21.5	1	20000	20000
	17:30	13.9	1	20000	20000		17:30	13.9	1	20000	20000
	18:30	5.8	1	20000	20000		18:30	5.8	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 22/Sep	00:30	0	0	20000	0	Sat, 22/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.9	1	20000	20000		07:30	3.9	1	20000	20000
	08:30	12.1	1	20000	20000		08:30	12.1	1	20000	20000
	09:30	19.8	1	20000	20000		09:30	19.8	1	20000	20000
	10:30	26.3	1	20000	20000		10:30	26.3	1	20000	20000
	11:30	31.3	1	20000	20000		11:30	31.3	1	20000	20000
	12:30	34.1	1	20000	20000		12:30	34.1	1	20000	20000
	13:30	34.4	1	20000	20000		13:30	34.4	1	20000	20000
	14:30	32	1	20000	20000		14:30	32	1	20000	20000
	15:30	27.4	1	20000	20000		15:30	27.4	1	20000	20000
	16:30	21.1	1	20000	20000		16:30	21.1	1	20000	20000
	17:30	13.6	1	20000	20000		17:30	13.6	1	20000	20000
	18:30	5.4	1	20000	20000		18:30	5.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 23/Sep	00:30	0	0	20000	0	Sun, 23/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.6	1	20000	20000		07:30	3.6	1	20000	20000
	08:30	11.8	1	20000	20000		08:30	11.8	1	20000	20000
	09:30	19.5	1	20000	20000		09:30	19.5	1	20000	20000
	10:30	26	1	20000	20000		10:30	26	1	20000	20000
	11:30	31	1	20000	20000		11:30	31	1	20000	20000
	12:30	33.8	1	20000	20000		12:30	33.8	1	20000	20000
	13:30	34	1	20000	20000		13:30	34	1	20000	20000
	14:30	31.6	1	20000	20000		14:30	31.6	1	20000	20000
	15:30	27	1	20000	20000		15:30	27	1	20000	20000
	16:30	20.7	1	20000	20000		16:30	20.7	1	20000	20000
	17:30	13.2	1	20000	20000		17:30	13.2	1	20000	20000
	18:30	5	1	20000	20000		18:30	5	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 24/Sep	00:30	0	0	20000	0	Mon, 24/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.3	1	20000	20000		07:30	3.3	1	20000	20000
	08:30	11.5	1	20000	20000		08:30	11.5	1	20000	20000
	09:30	19.2	1	20000	20000		09:30	19.2	1	20000	20000
	10:30	25.7	1	20000	20000		10:30	25.7	1	20000	20000
	11:30	30.6	1	20000	20000		11:30	30.6	1	20000	20000
	12:30	33.4	1	20000	20000		12:30	33.4	1	20000	20000
	13:30	33.6	1	20000	20000		13:30	33.6	1	20000	20000
	14:30	31.2	1	20000	20000		14:30	31.2	1	20000	20000
	15:30	26.6	1	20000	20000		15:30	26.6	1	20000	20000
	16:30	20.3	1	20000	20000		16:30	20.3	1	20000	20000
	17:30	12.8	1	20000	20000		17:30	12.8	1	20000	20000
	18:30	4.7	1	20000	20000		18:30	4.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 25/Sep	00:30	0	0	20000	0	Tue, 25/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.1	1	20000	20000		07:30	3.1	1	20000	20000
	08:30	11.3	1	20000	20000		08:30	11.3	1	20000	20000
	09:30	18.9	1	20000	20000		09:30	18.9	1	20000	20000
	10:30	25.4	1	20000	20000		10:30	25.4	1	20000	20000
	11:30	30.3	1	20000	20000		11:30	30.3	1	20000	20000
	12:30	33	1	20000	20000		12:30	33	1	20000	20000
	13:30	33.2	1	20000	20000		13:30	33.2	1	20000	20000
	14:30	30.8	1	20000	20000		14:30	30.8	1	20000	20000
	15:30	26.2	1	20000	20000		15:30	26.2	1	20000	20000
	16:30	19.9	1	20000	20000		16:30	19.9	1	20000	20000
	17:30	12.4	1	20000	20000		17:30	12.4	1	20000	20000
	18:30	4.3	1	20000	20000		18:30	4.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0

	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 26/Sep	00:30	0	0	20000	0	Wed, 26/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.8	1	20000	20000		07:30	2.8	1	20000	20000
	08:30	11	1	20000	20000		08:30	11	1	20000	20000
	09:30	18.6	1	20000	20000		09:30	18.6	1	20000	20000
	10:30	25.1	1	20000	20000		10:30	25.1	1	20000	20000
	11:30	29.9	1	20000	20000		11:30	29.9	1	20000	20000
	12:30	32.6	1	20000	20000		12:30	32.6	1	20000	20000
	13:30	32.8	1	20000	20000		13:30	32.8	1	20000	20000
	14:30	30.4	1	20000	20000		14:30	30.4	1	20000	20000
	15:30	25.8	1	20000	20000		15:30	25.8	1	20000	20000
	16:30	19.5	1	20000	20000		16:30	19.5	1	20000	20000
	17:30	12.1	1	20000	20000		17:30	12.1	1	20000	20000
	18:30	3.9	1	20000	20000		18:30	3.9	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 27/Sep	00:30	0	0	20000	0	Thu, 27/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.5	1	20000	20000		07:30	2.5	1	20000	20000
	08:30	10.7	1	20000	20000		08:30	10.7	1	20000	20000
	09:30	18.3	1	20000	20000		09:30	18.3	1	20000	20000
	10:30	24.7	1	20000	20000		10:30	24.7	1	20000	20000
	11:30	29.6	1	20000	20000		11:30	29.6	1	20000	20000
	12:30	32.2	1	20000	20000		12:30	32.2	1	20000	20000
	13:30	32.4	1	20000	20000		13:30	32.4	1	20000	20000
	14:30	30	1	20000	20000		14:30	30	1	20000	20000
	15:30	25.4	1	20000	20000		15:30	25.4	1	20000	20000
	16:30	19.1	1	20000	20000		16:30	19.1	1	20000	20000
	17:30	11.7	1	20000	20000		17:30	11.7	1	20000	20000
	18:30	3.6	1	20000	20000		18:30	3.6	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 28/Sep	00:30	0	0	20000	0	Fri, 28/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.2	1	20000	20000		07:30	2.2	1	20000	20000
	08:30	10.4	1	20000	20000		08:30	10.4	1	20000	20000
	09:30	18	1	20000	20000		09:30	18	1	20000	20000
	10:30	24.4	1	20000	20000		10:30	24.4	1	20000	20000
	11:30	29.2	1	20000	20000		11:30	29.2	1	20000	20000
	12:30	31.9	1	20000	20000		12:30	31.9	1	20000	20000
	13:30	32	1	20000	20000		13:30	32	1	20000	20000
	14:30	29.6	1	20000	20000		14:30	29.6	1	20000	20000
	15:30	25	1	20000	20000		15:30	25	1	20000	20000
	16:30	18.7	1	20000	20000		16:30	18.7	1	20000	20000
	17:30	11.3	1	20000	20000		17:30	11.3	1	20000	20000
	18:30	3.2	1	20000	20000		18:30	3.2	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 29/Sep	00:30	0	0	20000	0	Sat, 29/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2	1	20000	20000		07:30	2	1	20000	20000
	08:30	10.1	1	20000	20000		08:30	10.1	1	20000	20000
	09:30	17.7	1	20000	20000		09:30	17.7	1	20000	20000
	10:30	24.1	1	20000	20000		10:30	24.1	1	20000	20000
	11:30	28.9	1	20000	20000		11:30	28.9	1	20000	20000
	12:30	31.5	1	20000	20000		12:30	31.5	1	20000	20000
	13:30	31.6	1	20000	20000		13:30	31.6	1	20000	20000
	14:30	29.2	1	20000	20000		14:30	29.2	1	20000	20000
	15:30	24.6	1	20000	20000		15:30	24.6	1	20000	20000
	16:30	18.4	1	20000	20000		16:30	18.4	1	20000	20000
	17:30	10.9	1	20000	20000		17:30	10.9	1	20000	20000
	18:30	2.8	1	20000	20000		18:30	2.8	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 30/Sep	00:30	0	0	20000	0	Sun, 30/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.7	1	20000	20000		07:30	1.7	1	20000	20000
	08:30	9.8	1	20000	20000		08:30	9.8	1	20000	20000
	09:30	17.4	1	20000	20000		09:30	17.4	1	20000	20000
	10:30	23.7	1	20000	20000		10:30	23.7	1	20000	20000
	11:30	28.5	1	20000	20000		11:30	28.5	1	20000	20000
	12:30	31.1	1	20000	20000		12:30	31.1	1	20000	20000
	13:30	31.2	1	20000	20000		13:30	31.2	1	20000	20000
	14:30	28.8	1	20000	20000		14:30	28.8	1	20000	20000
	15:30	24.3	1	20000	20000		15:30	24.3	1	20000	20000
	16:30	18	1	20000	20000		16:30	18	1	20000	20000
	17:30	10.6	1	20000	20000		17:30	10.6	1	20000	20000
	18:30	2.4	1	20000	20000		18:30	2.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 01/Oct	00:30	0	0	20000	0	Mon, 01/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.4	1	20000	20000		07:30	1.4	1	20000	20000
	08:30	9.6	1	20000	20000		08:30	9.6	1	20000	20000
	09:30	17	1	20000	20000		09:30	17	1	20000	20000
	10:30	23.4	1	20000	20000		10:30	23.4	1	20000	20000
	11:30	28.1	1	20000	20000		11:30	28.1	1	20000	20000
	12:30	30.7	1	20000	20000		12:30	30.7	1	20000	20000

	13:30	30.8	1	20000	20000		13:30	30.8	1	20000	20000
	14:30	28.4	1	20000	20000		14:30	28.4	1	20000	20000
	15:30	23.9	1	20000	20000		15:30	23.9	1	20000	20000
	16:30	17.6	1	20000	20000		16:30	17.6	1	20000	20000
	17:30	10.2	1	20000	20000		17:30	10.2	1	20000	20000
	18:30	2.1	1	20000	20000		18:30	2.1	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 02/Oct	00:30	0	0	20000	0	Tue, 02/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.1	1	20000	20000		07:30	1.1	1	20000	20000
	08:30	9.3	1	20000	20000		08:30	9.3	1	20000	20000
	09:30	16.7	1	20000	20000		09:30	16.7	1	20000	20000
	10:30	23.1	1	20000	20000		10:30	23.1	1	20000	20000
	11:30	27.8	1	20000	20000		11:30	27.8	1	20000	20000
	12:30	30.4	1	20000	20000		12:30	30.4	1	20000	20000
	13:30	30.4	1	20000	20000		13:30	30.4	1	20000	20000
	14:30	28	1	20000	20000		14:30	28	1	20000	20000
	15:30	23.5	1	20000	20000		15:30	23.5	1	20000	20000
	16:30	17.2	1	20000	20000		16:30	17.2	1	20000	20000
	17:30	9.8	1	20000	20000		17:30	9.8	1	20000	20000
	18:30	1.7	1	20000	20000		18:30	1.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 03/Oct	00:30	0	0	20000	0	Wed, 03/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.9	1	20000	20000		07:30	0.9	1	20000	20000
	08:30	9	1	20000	20000		08:30	9	1	20000	20000
	09:30	16.4	1	20000	20000		09:30	16.4	1	20000	20000
	10:30	22.8	1	20000	20000		10:30	22.8	1	20000	20000
	11:30	27.4	1	20000	20000		11:30	27.4	1	20000	20000
	12:30	30	1	20000	20000		12:30	30	1	20000	20000
	13:30	30	1	20000	20000		13:30	30	1	20000	20000
	14:30	27.6	1	20000	20000		14:30	27.6	1	20000	20000
	15:30	23.1	1	20000	20000		15:30	23.1	1	20000	20000
	16:30	16.8	1	20000	20000		16:30	16.8	1	20000	20000
	17:30	9.4	1	20000	20000		17:30	9.4	1	20000	20000
	18:30	1.3	1	20000	20000		18:30	1.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 04/Oct	00:30	0	0	20000	0	Thu, 04/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.6	1	20000	20000		07:30	0.6	1	20000	20000
	08:30	8.7	1	20000	20000		08:30	8.7	1	20000	20000
	09:30	16.1	1	20000	20000		09:30	16.1	1	20000	20000
	10:30	22.4	1	20000	20000		10:30	22.4	1	20000	20000
	11:30	27.1	1	20000	20000		11:30	27.1	1	20000	20000
	12:30	29.6	1	20000	20000		12:30	29.6	1	20000	20000
	13:30	29.7	1	20000	20000		13:30	29.7	1	20000	20000
	14:30	27.3	1	20000	20000		14:30	27.3	1	20000	20000
	15:30	22.7	1	20000	20000		15:30	22.7	1	20000	20000
	16:30	16.5	1	20000	20000		16:30	16.5	1	20000	20000
	17:30	9.1	1	20000	20000		17:30	9.1	1	20000	20000
	18:30	1	1	20000	20000		18:30	1	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 05/Oct	00:30	0	0	20000	0	Fri, 05/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.3	1	20000	20000		07:30	0.3	1	20000	20000
	08:30	8.4	1	20000	20000		08:30	8.4	1	20000	20000
	09:30	15.8	1	20000	20000		09:30	15.8	1	20000	20000
	10:30	22.1	1	20000	20000		10:30	22.1	1	20000	20000
	11:30	26.7	1	20000	20000		11:30	26.7	1	20000	20000
	12:30	29.2	1	20000	20000		12:30	29.2	1	20000	20000
	13:30	29.3	1	20000	20000		13:30	29.3	1	20000	20000
	14:30	26.9	1	20000	20000		14:30	26.9	1	20000	20000
	15:30	22.3	1	20000	20000		15:30	22.3	1	20000	20000
	16:30	16.1	1	20000	20000		16:30	16.1	1	20000	20000
	17:30	8.7	1	20000	20000		17:30	8.7	1	20000	20000
	18:30	0.6	1	20000	20000		18:30	0.6	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 06/Oct	00:30	0	0	20000	0	Sat, 06/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	8.1	1	20000	20000		08:30	8.1	1	20000	20000
	09:30	15.5	1	20000	20000		09:30	15.5	1	20000	20000
	10:30	21.8	1	20000	20000		10:30	21.8	1	20000	20000
	11:30	26.4	1	20000	20000		11:30	26.4	1	20000	20000
	12:30	28.8	1	20000	20000		12:30	28.8	1	20000	20000
	13:30	28.9	1	20000	20000		13:30	28.9	1	20000	20000
	14:30	26.5	1	20000	20000		14:30	26.5	1	20000	20000
	15:30	21.9	1	20000	20000		15:30	21.9	1	20000	20000
	16:30	15.7	1	20000	20000		16:30	15.7	1	20000	20000
	17:30	8.3	1	20000	20000		17:30	8.3	1	20000	20000
	18:30	0.2	1	20000	20000		18:30	0.2	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 07/Oct	00:30	0	0	20000	0	Sun, 07/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0

	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.8	1	20000	20000		08:30	7.8	1	20000	20000
	09:30	15.2	1	20000	20000		09:30	15.2	1	20000	20000
	10:30	21.4	1	20000	20000		10:30	21.4	1	20000	20000
	11:30	26	1	20000	20000		11:30	26	1	20000	20000
	12:30	28.5	1	20000	20000		12:30	28.5	1	20000	20000
	13:30	28.5	1	20000	20000		13:30	28.5	1	20000	20000
	14:30	26.1	1	20000	20000		14:30	26.1	1	20000	20000
	15:30	21.5	1	20000	20000		15:30	21.5	1	20000	20000
	16:30	15.3	1	20000	20000		16:30	15.3	1	20000	20000
	17:30	8	1	20000	20000		17:30	8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 08/Oct	00:30	0	0	20000	0	Mon, 08/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.5	1	20000	20000		08:30	7.5	1	20000	20000
	09:30	14.9	1	20000	20000		09:30	14.9	1	20000	20000
	10:30	21.1	1	20000	20000		10:30	21.1	1	20000	20000
	11:30	25.7	1	20000	20000		11:30	25.7	1	20000	20000
	12:30	28.1	1	20000	20000		12:30	28.1	1	20000	20000
	13:30	28.1	1	20000	20000		13:30	28.1	1	20000	20000
	14:30	25.7	1	20000	20000		14:30	25.7	1	20000	20000
	15:30	21.2	1	20000	20000		15:30	21.2	1	20000	20000
	16:30	15	1	20000	20000		16:30	15	1	20000	20000
	17:30	7.6	1	20000	20000		17:30	7.6	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 09/Oct	00:30	0	0	20000	0	Tue, 09/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
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	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.2	1	20000	20000		08:30	7.2	1	20000	20000
	09:30	14.6	1	20000	20000		09:30	14.6	1	20000	20000
	10:30	20.8	1	20000	20000		10:30	20.8	1	20000	20000
	11:30	25.3	1	20000	20000		11:30	25.3	1	20000	20000
	12:30	27.7	1	20000	20000		12:30	27.7	1	20000	20000
	13:30	27.7	1	20000	20000		13:30	27.7	1	20000	20000
	14:30	25.3	1	20000	20000		14:30	25.3	1	20000	20000
	15:30	20.8	1	20000	20000		15:30	20.8	1	20000	20000
	16:30	14.6	1	20000	20000		16:30	14.6	1	20000	20000
	17:30	7.2	1	20000	20000		17:30	7.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 10/Oct	00:30	0	0	20000	0	Wed, 10/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.9	1	20000	20000		08:30	6.9	1	20000	20000
	09:30	14.3	1	20000	20000		09:30	14.3	1	20000	20000
	10:30	20.4	1	20000	20000		10:30	20.4	1	20000	20000
	11:30	24.9	1	20000	20000		11:30	24.9	1	20000	20000
	12:30	27.3	1	20000	20000		12:30	27.3	1	20000	20000
	13:30	27.3	1	20000	20000		13:30	27.3	1	20000	20000
	14:30	24.9	1	20000	20000		14:30	24.9	1	20000	20000
	15:30	20.4	1	20000	20000		15:30	20.4	1	20000	20000
	16:30	14.2	1	20000	20000		16:30	14.2	1	20000	20000
	17:30	6.9	1	20000	20000		17:30	6.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 11/Oct	00:30	0	0	20000	0	Thu, 11/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.7	1	20000	20000		08:30	6.7	1	20000	20000
	09:30	14	1	20000	20000		09:30	14	1	20000	20000
	10:30	20.1	1	20000	20000		10:30	20.1	1	20000	20000
	11:30	24.6	1	20000	20000		11:30	24.6	1	20000	20000
	12:30	27	1	20000	20000		12:30	27	1	20000	20000
	13:30	26.9	1	20000	20000		13:30	26.9	1	20000	20000
	14:30	24.5	1	20000	20000		14:30	24.5	1	20000	20000
	15:30	20	1	20000	20000		15:30	20	1	20000	20000
	16:30	13.9	1	20000	20000		16:30	13.9	1	20000	20000
	17:30	6.5	1	20000	20000		17:30	6.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 12/Oct	00:30	0	0	20000	0	Fri, 12/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.4	1	20000	20000		08:30	6.4	1	20000	20000
	09:30	13.7	1	20000	20000		09:30	13.7	1	20000	20000
	10:30	19.8	1	20000	20000		10:30	19.8	1	20000	20000
	11:30	24.2	1	20000	20000		11:30	24.2	1	20000	20000
	12:30	26.6	1	20000	20000		12:30	26.6	1	20000	20000
	13:30	26.6	1	20000	20000		13:30	26.6	1	20000	20000
	14:30	24.1	1	20000	20000		14:30	24.1	1	20000	20000
	15:30	19.6	1	20000	20000		15:30	19.6	1	20000	20000
	16:30	13.5	1	20000	20000		16:30	13.5	1	20000	20000
	17:30	6.2	1	20000	20000		17:30	6.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0

	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 13/Oct	00:30	0	0	20000	0	Sat, 13/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.1	1	20000	20000		08:30	6.1	1	20000	20000
	09:30	13.4	1	20000	20000		09:30	13.4	1	20000	20000
	10:30	19.5	1	20000	20000		10:30	19.5	1	20000	20000
	11:30	23.9	1	20000	20000		11:30	23.9	1	20000	20000
	12:30	26.2	1	20000	20000		12:30	26.2	1	20000	20000
	13:30	26.2	1	20000	20000		13:30	26.2	1	20000	20000
	14:30	23.8	1	20000	20000		14:30	23.8	1	20000	20000
	15:30	19.3	1	20000	20000		15:30	19.3	1	20000	20000
	16:30	13.1	1	20000	20000		16:30	13.1	1	20000	20000
	17:30	5.8	1	20000	20000		17:30	5.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 14/Oct	00:30	0	0	20000	0	Sun, 14/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.8	1	20000	20000		08:30	5.8	1	20000	20000
	09:30	13	1	20000	20000		09:30	13	1	20000	20000
	10:30	19.1	1	20000	20000		10:30	19.1	1	20000	20000
	11:30	23.5	1	20000	20000		11:30	23.5	1	20000	20000
	12:30	25.8	1	20000	20000		12:30	25.8	1	20000	20000
	13:30	25.8	1	20000	20000		13:30	25.8	1	20000	20000
	14:30	23.4	1	20000	20000		14:30	23.4	1	20000	20000
	15:30	18.9	1	20000	20000		15:30	18.9	1	20000	20000
	16:30	12.8	1	20000	20000		16:30	12.8	1	20000	20000
	17:30	5.5	1	20000	20000		17:30	5.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 15/Oct	00:30	0	0	20000	0	Mon, 15/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.5	1	20000	20000		08:30	5.5	1	20000	20000
	09:30	12.7	1	20000	20000		09:30	12.7	1	20000	20000
	10:30	18.8	1	20000	20000		10:30	18.8	1	20000	20000
	11:30	23.2	1	20000	20000		11:30	23.2	1	20000	20000
	12:30	25.5	1	20000	20000		12:30	25.5	1	20000	20000
	13:30	25.4	1	20000	20000		13:30	25.4	1	20000	20000
	14:30	23	1	20000	20000		14:30	23	1	20000	20000
	15:30	18.5	1	20000	20000		15:30	18.5	1	20000	20000
	16:30	12.4	1	20000	20000		16:30	12.4	1	20000	20000
	17:30	5.1	1	20000	20000		17:30	5.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 16/Oct	00:30	0	0	20000	0	Tue, 16/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.2	1	20000	20000		08:30	5.2	1	20000	20000
	09:30	12.4	1	20000	20000		09:30	12.4	1	20000	20000
	10:30	18.5	1	20000	20000		10:30	18.5	1	20000	20000
	11:30	22.8	1	20000	20000		11:30	22.8	1	20000	20000
	12:30	25.1	1	20000	20000		12:30	25.1	1	20000	20000
	13:30	25	1	20000	20000		13:30	25	1	20000	20000
	14:30	22.6	1	20000	20000		14:30	22.6	1	20000	20000
	15:30	18.2	1	20000	20000		15:30	18.2	1	20000	20000
	16:30	12.1	1	20000	20000		16:30	12.1	1	20000	20000
	17:30	4.8	1	20000	20000		17:30	4.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 17/Oct	00:30	0	0	20000	0	Wed, 17/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.9	1	20000	20000		08:30	4.9	1	20000	20000
	09:30	12.1	1	20000	20000		09:30	12.1	1	20000	20000
	10:30	18.1	1	20000	20000		10:30	18.1	1	20000	20000
	11:30	22.5	1	20000	20000		11:30	22.5	1	20000	20000
	12:30	24.7	1	20000	20000		12:30	24.7	1	20000	20000
	13:30	24.7	1	20000	20000		13:30	24.7	1	20000	20000
	14:30	22.3	1	20000	20000		14:30	22.3	1	20000	20000
	15:30	17.8	1	20000	20000		15:30	17.8	1	20000	20000
	16:30	11.7	1	20000	20000		16:30	11.7	1	20000	20000
	17:30	4.4	1	20000	20000		17:30	4.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 18/Oct	00:30	0	0	20000	0	Thu, 18/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.6	1	20000	20000		08:30	4.6	1	20000	20000
	09:30	11.8	1	20000	20000		09:30	11.8	1	20000	20000
	10:30	17.8	1	20000	20000		10:30	17.8	1	20000	20000
	11:30	22.1	1	20000	20000		11:30	22.1	1	20000	20000
	12:30	24.4	1	20000	20000		12:30	24.4	1	20000	20000
	13:30	24.3	1	20000	20000		13:30	24.3	1	20000	20000
	14:30	21.9	1	20000	20000		14:30	21.9	1	20000	20000
	15:30	17.5	1	20000	20000		15:30	17.5	1	20000	20000

	16:30	11.4	1	20000	20000		16:30	11.4	1	20000	20000
	17:30	4.1	1	20000	20000		17:30	4.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 19/Oct	00:30	0	0	20000	0	Fri, 19/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.3	1	20000	20000		08:30	4.3	1	20000	20000
	09:30	11.5	1	20000	20000		09:30	11.5	1	20000	20000
	10:30	17.5	1	20000	20000		10:30	17.5	1	20000	20000
	11:30	21.8	1	20000	20000		11:30	21.8	1	20000	20000
	12:30	24	1	20000	20000		12:30	24	1	20000	20000
	13:30	23.9	1	20000	20000		13:30	23.9	1	20000	20000
	14:30	21.5	1	20000	20000		14:30	21.5	1	20000	20000
	15:30	17.1	1	20000	20000		15:30	17.1	1	20000	20000
	16:30	11	1	20000	20000		16:30	11	1	20000	20000
	17:30	3.8	1	20000	20000		17:30	3.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 20/Oct	00:30	0	0	20000	0	Sat, 20/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4	1	20000	20000		08:30	4	1	20000	20000
	09:30	11.2	1	20000	20000		09:30	11.2	1	20000	20000
	10:30	17.2	1	20000	20000		10:30	17.2	1	20000	20000
	11:30	21.4	1	20000	20000		11:30	21.4	1	20000	20000
	12:30	23.7	1	20000	20000		12:30	23.7	1	20000	20000
	13:30	23.6	1	20000	20000		13:30	23.6	1	20000	20000
	14:30	21.2	1	20000	20000		14:30	21.2	1	20000	20000
	15:30	16.7	1	20000	20000		15:30	16.7	1	20000	20000
	16:30	10.7	1	20000	20000		16:30	10.7	1	20000	20000
	17:30	3.4	1	20000	20000		17:30	3.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 21/Oct	00:30	0	0	20000	0	Sun, 21/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.7	1	20000	20000		08:30	3.7	1	20000	20000
	09:30	10.9	1	20000	20000		09:30	10.9	1	20000	20000
	10:30	16.8	1	20000	20000		10:30	16.8	1	20000	20000
	11:30	21.1	1	20000	20000		11:30	21.1	1	20000	20000
	12:30	23.3	1	20000	20000		12:30	23.3	1	20000	20000
	13:30	23.2	1	20000	20000		13:30	23.2	1	20000	20000
	14:30	20.8	1	20000	20000		14:30	20.8	1	20000	20000
	15:30	16.4	1	20000	20000		15:30	16.4	1	20000	20000
	16:30	10.3	1	20000	20000		16:30	10.3	1	20000	20000
	17:30	3.1	1	20000	20000		17:30	3.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 22/Oct	00:30	0	0	20000	0	Mon, 22/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.5	1	20000	20000		08:30	3.5	1	20000	20000
	09:30	10.6	1	20000	20000		09:30	10.6	1	20000	20000
	10:30	16.5	1	20000	20000		10:30	16.5	1	20000	20000
	11:30	20.8	1	20000	20000		11:30	20.8	1	20000	20000
	12:30	23	1	20000	20000		12:30	23	1	20000	20000
	13:30	22.9	1	20000	20000		13:30	22.9	1	20000	20000
	14:30	20.5	1	20000	20000		14:30	20.5	1	20000	20000
	15:30	16.1	1	20000	20000		15:30	16.1	1	20000	20000
	16:30	10	1	20000	20000		16:30	10	1	20000	20000
	17:30	2.8	1	20000	20000		17:30	2.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 23/Oct	00:30	0	0	20000	0	Tue, 23/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.2	1	20000	20000		08:30	3.2	1	20000	20000
	09:30	10.3	1	20000	20000		09:30	10.3	1	20000	20000
	10:30	16.2	1	20000	20000		10:30	16.2	1	20000	20000
	11:30	20.4	1	20000	20000		11:30	20.4	1	20000	20000
	12:30	22.6	1	20000	20000		12:30	22.6	1	20000	20000
	13:30	22.5	1	20000	20000		13:30	22.5	1	20000	20000
	14:30	20.1	1	20000	20000		14:30	20.1	1	20000	20000
	15:30	15.7	1	20000	20000		15:30	15.7	1	20000	20000
	16:30	9.7	1	20000	20000		16:30	9.7	1	20000	20000
	17:30	2.5	1	20000	20000		17:30	2.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 24/Oct	00:30	0	0	20000	0	Wed, 24/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.9	1	20000	20000		08:30	2.9	1	20000	20000

	09:30	10	1	20000	20000		09:30	10	1	20000	20000
	10:30	15.9	1	20000	20000		10:30	15.9	1	20000	20000
	11:30	20.1	1	20000	20000		11:30	20.1	1	20000	20000
	12:30	22.3	1	20000	20000		12:30	22.3	1	20000	20000
	13:30	22.1	1	20000	20000		13:30	22.1	1	20000	20000
	14:30	19.8	1	20000	20000		14:30	19.8	1	20000	20000
	15:30	15.4	1	20000	20000		15:30	15.4	1	20000	20000
	16:30	9.4	1	20000	20000		16:30	9.4	1	20000	20000
	17:30	2.2	1	20000	20000		17:30	2.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 25/Oct	00:30	0	0	20000	0	Thu, 25/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.6	1	20000	20000		08:30	2.6	1	20000	20000
	09:30	9.7	1	20000	20000		09:30	9.7	1	20000	20000
	10:30	15.5	1	20000	20000		10:30	15.5	1	20000	20000
	11:30	19.7	1	20000	20000		11:30	19.7	1	20000	20000
	12:30	21.9	1	20000	20000		12:30	21.9	1	20000	20000
	13:30	21.8	1	20000	20000		13:30	21.8	1	20000	20000
	14:30	19.4	1	20000	20000		14:30	19.4	1	20000	20000
	15:30	15	1	20000	20000		15:30	15	1	20000	20000
	16:30	9	1	20000	20000		16:30	9	1	20000	20000
	17:30	1.9	1	20000	20000		17:30	1.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 26/Oct	00:30	0	0	20000	0	Fri, 26/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.3	1	20000	20000		08:30	2.3	1	20000	20000
	09:30	9.4	1	20000	20000		09:30	9.4	1	20000	20000
	10:30	15.2	1	20000	20000		10:30	15.2	1	20000	20000
	11:30	19.4	1	20000	20000		11:30	19.4	1	20000	20000
	12:30	21.6	1	20000	20000		12:30	21.6	1	20000	20000
	13:30	21.4	1	20000	20000		13:30	21.4	1	20000	20000
	14:30	19.1	1	20000	20000		14:30	19.1	1	20000	20000
	15:30	14.7	1	20000	20000		15:30	14.7	1	20000	20000
	16:30	8.7	1	20000	20000		16:30	8.7	1	20000	20000
	17:30	1.5	1	20000	20000		17:30	1.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 27/Oct	00:30	0	0	20000	0	Sat, 27/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2	1	20000	20000		08:30	2	1	20000	20000
	09:30	9.1	1	20000	20000		09:30	9.1	1	20000	20000
	10:30	14.9	1	20000	20000		10:30	14.9	1	20000	20000
	11:30	19.1	1	20000	20000		11:30	19.1	1	20000	20000
	12:30	21.2	1	20000	20000		12:30	21.2	1	20000	20000
	13:30	21.1	1	20000	20000		13:30	21.1	1	20000	20000
	14:30	18.7	1	20000	20000		14:30	18.7	1	20000	20000
	15:30	14.4	1	20000	20000		15:30	14.4	1	20000	20000
	16:30	8.4	1	20000	20000		16:30	8.4	1	20000	20000
	17:30	1.2	1	20000	20000		17:30	1.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 28/Oct	00:30	0	0	20000	0	Sun, 28/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.7	1	20000	20000		08:30	1.7	1	20000	20000
	09:30	8.8	1	20000	20000		09:30	8.8	1	20000	20000
	10:30	14.6	1	20000	20000		10:30	14.6	1	20000	20000
	11:30	18.8	1	20000	20000		11:30	18.8	1	20000	20000
	12:30	20.9	1	20000	20000		12:30	20.9	1	20000	20000
	13:30	20.8	1	20000	20000		13:30	20.8	1	20000	20000
	14:30	18.4	1	20000	20000		14:30	18.4	1	20000	20000
	15:30	14.1	1	20000	20000		15:30	14.1	1	20000	20000
	16:30	8.1	1	20000	20000		16:30	8.1	1	20000	20000
	17:30	0.9	1	20000	20000		17:30	0.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 29/Oct	00:30	0	0	20000	0	Mon, 29/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.4	1	20000	20000		08:30	1.4	1	20000	20000
	09:30	8.5	1	20000	20000		09:30	8.5	1	20000	20000
	10:30	14.3	1	20000	20000		10:30	14.3	1	20000	20000
	11:30	18.4	1	20000	20000		11:30	18.4	1	20000	20000
	12:30	20.5	1	20000	20000		12:30	20.5	1	20000	20000
	13:30	20.4	1	20000	20000		13:30	20.4	1	20000	20000
	14:30	18.1	1	20000	20000		14:30	18.1	1	20000	20000
	15:30	13.7	1	20000	20000		15:30	13.7	1	20000	20000
	16:30	7.8	1	20000	20000		16:30	7.8	1	20000	20000
	17:30	0.7	1	20000	20000		17:30	0.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 30/Oct	00:30	0	0	20000	0	Tue, 30/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0

	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.2	1	20000	20000		08:30	1.2	1	20000	20000
	09:30	8.2	1	20000	20000		09:30	8.2	1	20000	20000
	10:30	14	1	20000	20000		10:30	14	1	20000	20000
	11:30	18.1	1	20000	20000		11:30	18.1	1	20000	20000
	12:30	20.2	1	20000	20000		12:30	20.2	1	20000	20000
	13:30	20.1	1	20000	20000		13:30	20.1	1	20000	20000
	14:30	17.8	1	20000	20000		14:30	17.8	1	20000	20000
	15:30	13.4	1	20000	20000		15:30	13.4	1	20000	20000
	16:30	7.5	1	20000	20000		16:30	7.5	1	20000	20000
	17:30	0.4	1	20000	20000		17:30	0.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 31/Oct	00:30	0	0	20000	0	Wed, 31/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.9	1	20000	20000		08:30	0.9	1	20000	20000
	09:30	7.9	1	20000	20000		09:30	7.9	1	20000	20000
	10:30	13.7	1	20000	20000		10:30	13.7	1	20000	20000
	11:30	17.8	1	20000	20000		11:30	17.8	1	20000	20000
	12:30	19.9	1	20000	20000		12:30	19.9	1	20000	20000
	13:30	19.8	1	20000	20000		13:30	19.8	1	20000	20000
	14:30	17.4	1	20000	20000		14:30	17.4	1	20000	20000
	15:30	13.1	1	20000	20000		15:30	13.1	1	20000	20000
	16:30	7.2	1	20000	20000		16:30	7.2	1	20000	20000
	17:30	0.1	1	20000	20000		17:30	0.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 01/Nov	00:30	0	0	20000	0	Thu, 01/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.6	1	20000	20000		07:30	0.6	1	20000	20000
	08:30	7.6	1	20000	20000		08:30	7.6	1	20000	20000
	09:30	13.4	1	20000	20000		09:30	13.4	1	20000	20000
	10:30	17.5	1	20000	20000		10:30	17.5	1	20000	20000
	11:30	19.6	1	20000	20000		11:30	19.6	1	20000	20000
	12:30	19.4	1	20000	20000		12:30	19.4	1	20000	20000
	13:30	17.1	1	20000	20000		13:30	17.1	1	20000	20000
	14:30	12.8	1	20000	20000		14:30	12.8	1	20000	20000
	15:30	6.9	1	20000	20000		15:30	6.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 02/Nov	00:30	0	0	20000	0	Fri, 02/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.3	1	20000	20000		07:30	0.3	1	20000	20000
	08:30	7.3	1	20000	20000		08:30	7.3	1	20000	20000
	09:30	13	1	20000	20000		09:30	13	1	20000	20000
	10:30	17.1	1	20000	20000		10:30	17.1	1	20000	20000
	11:30	19.2	1	20000	20000		11:30	19.2	1	20000	20000
	12:30	19.1	1	20000	20000		12:30	19.1	1	20000	20000
	13:30	16.8	1	20000	20000		13:30	16.8	1	20000	20000
	14:30	12.5	1	20000	20000		14:30	12.5	1	20000	20000
	15:30	6.6	1	20000	20000		15:30	6.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 03/Nov	00:30	0	0	20000	0	Sat, 03/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7	1	20000	20000		08:30	7	1	20000	20000
	09:30	12.7	1	20000	20000		09:30	12.7	1	20000	20000
	10:30	16.8	1	20000	20000		10:30	16.8	1	20000	20000
	11:30	18.9	1	20000	20000		11:30	18.9	1	20000	20000
	12:30	18.8	1	20000	20000		12:30	18.8	1	20000	20000
	13:30	16.5	1	20000	20000		13:30	16.5	1	20000	20000
	14:30	12.2	1	20000	20000		14:30	12.2	1	20000	20000
	15:30	6.3	1	20000	20000		15:30	6.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 04/Nov	00:30	0	0	20000	0	Sun, 04/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.7	1	20000	20000		08:30	6.7	1	20000	20000
	09:30	12.5	1	20000	20000		09:30	12.5	1	20000	20000
	10:30	16.5	1	20000	20000		10:30	16.5	1	20000	20000
	11:30	18.6	1	20000	20000		11:30	18.6	1	20000	20000
	12:30	18.5	1	20000	20000		12:30	18.5	1	20000	20000
	13:30	16.2	1	20000	20000		13:30	16.2	1	20000	20000
	14:30	11.9	1	20000	20000		14:30	11.9	1	20000	20000
	15:30	6.1	1	20000	20000		15:30	6.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0

	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 05/Nov	00:30	0	0	20000	0	Mon, 05/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.4	1	20000	20000		08:30	6.4	1	20000	20000
	09:30	12.2	1	20000	20000		09:30	12.2	1	20000	20000
	10:30	16.2	1	20000	20000		10:30	16.2	1	20000	20000
	11:30	18.3	1	20000	20000		11:30	18.3	1	20000	20000
	12:30	18.2	1	20000	20000		12:30	18.2	1	20000	20000
	13:30	15.9	1	20000	20000		13:30	15.9	1	20000	20000
	14:30	11.6	1	20000	20000		14:30	11.6	1	20000	20000
	15:30	5.8	1	20000	20000		15:30	5.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
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	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 06/Nov	00:30	0	0	20000	0	Tue, 06/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
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	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.2	1	20000	20000		08:30	6.2	1	20000	20000
	09:30	11.9	1	20000	20000		09:30	11.9	1	20000	20000
	10:30	15.9	1	20000	20000		10:30	15.9	1	20000	20000
	11:30	18	1	20000	20000		11:30	18	1	20000	20000
	12:30	17.9	1	20000	20000		12:30	17.9	1	20000	20000
	13:30	15.6	1	20000	20000		13:30	15.6	1	20000	20000
	14:30	11.4	1	20000	20000		14:30	11.4	1	20000	20000
	15:30	5.5	1	20000	20000		15:30	5.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 07/Nov	00:30	0	0	20000	0	Wed, 07/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.9	1	20000	20000		08:30	5.9	1	20000	20000
	09:30	11.6	1	20000	20000		09:30	11.6	1	20000	20000
	10:30	15.6	1	20000	20000		10:30	15.6	1	20000	20000
	11:30	17.7	1	20000	20000		11:30	17.7	1	20000	20000
	12:30	17.6	1	20000	20000		12:30	17.6	1	20000	20000
	13:30	15.3	1	20000	20000		13:30	15.3	1	20000	20000
	14:30	11.1	1	20000	20000		14:30	11.1	1	20000	20000
	15:30	5.3	1	20000	20000		15:30	5.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
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	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 08/Nov	00:30	0	0	20000	0	Thu, 08/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.6	1	20000	20000		08:30	5.6	1	20000	20000
	09:30	11.3	1	20000	20000		09:30	11.3	1	20000	20000
	10:30	15.3	1	20000	20000		10:30	15.3	1	20000	20000
	11:30	17.4	1	20000	20000		11:30	17.4	1	20000	20000
	12:30	17.3	1	20000	20000		12:30	17.3	1	20000	20000
	13:30	15	1	20000	20000		13:30	15	1	20000	20000
	14:30	10.8	1	20000	20000		14:30	10.8	1	20000	20000
	15:30	5	1	20000	20000		15:30	5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
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	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 09/Nov	00:30	0	0	20000	0	Fri, 09/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
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	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.3	1	20000	20000		08:30	5.3	1	20000	20000
	09:30	11	1	20000	20000		09:30	11	1	20000	20000
	10:30	15	1	20000	20000		10:30	15	1	20000	20000
	11:30	17.1	1	20000	20000		11:30	17.1	1	20000	20000
	12:30	17	1	20000	20000		12:30	17	1	20000	20000
	13:30	14.8	1	20000	20000		13:30	14.8	1	20000	20000
	14:30	10.6	1	20000	20000		14:30	10.6	1	20000	20000
	15:30	4.8	1	20000	20000		15:30	4.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 10/Nov	00:30	0	0	20000	0	Sat, 10/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
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	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.1	1	20000	20000		08:30	5.1	1	20000	20000
	09:30	10.7	1	20000	20000		09:30	10.7	1	20000	20000
	10:30	14.7	1	20000	20000		10:30	14.7	1	20000	20000
	11:30	16.8	1	20000	20000		11:30	16.8	1	20000	20000

	12:30	16.7	1	20000	20000		12:30	16.7	1	20000	20000
	13:30	14.5	1	20000	20000		13:30	14.5	1	20000	20000
	14:30	10.3	1	20000	20000		14:30	10.3	1	20000	20000
	15:30	4.5	1	20000	20000		15:30	4.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
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	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 11/Nov	00:30	0	0	20000	0	Sun, 11/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.8	1	20000	20000		08:30	4.8	1	20000	20000
	09:30	10.4	1	20000	20000		09:30	10.4	1	20000	20000
	10:30	14.5	1	20000	20000		10:30	14.5	1	20000	20000
	11:30	16.5	1	20000	20000		11:30	16.5	1	20000	20000
	12:30	16.4	1	20000	20000		12:30	16.4	1	20000	20000
	13:30	14.2	1	20000	20000		13:30	14.2	1	20000	20000
	14:30	10	1	20000	20000		14:30	10	1	20000	20000
	15:30	4.3	1	20000	20000		15:30	4.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 12/Nov	00:30	0	0	20000	0	Mon, 12/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.5	1	20000	20000		08:30	4.5	1	20000	20000
	09:30	10.2	1	20000	20000		09:30	10.2	1	20000	20000
	10:30	14.2	1	20000	20000		10:30	14.2	1	20000	20000
	11:30	16.3	1	20000	20000		11:30	16.3	1	20000	20000
	12:30	16.2	1	20000	20000		12:30	16.2	1	20000	20000
	13:30	13.9	1	20000	20000		13:30	13.9	1	20000	20000
	14:30	9.8	1	20000	20000		14:30	9.8	1	20000	20000
	15:30	4.1	1	20000	20000		15:30	4.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 13/Nov	00:30	0	0	20000	0	Tue, 13/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.3	1	20000	20000		08:30	4.3	1	20000	20000
	09:30	9.9	1	20000	20000		09:30	9.9	1	20000	20000
	10:30	13.9	1	20000	20000		10:30	13.9	1	20000	20000
	11:30	16	1	20000	20000		11:30	16	1	20000	20000
	12:30	15.9	1	20000	20000		12:30	15.9	1	20000	20000
	13:30	13.7	1	20000	20000		13:30	13.7	1	20000	20000
	14:30	9.6	1	20000	20000		14:30	9.6	1	20000	20000
	15:30	3.8	1	20000	20000		15:30	3.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 14/Nov	00:30	0	0	20000	0	Wed, 14/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4	1	20000	20000		08:30	4	1	20000	20000
	09:30	9.6	1	20000	20000		09:30	9.6	1	20000	20000
	10:30	13.6	1	20000	20000		10:30	13.6	1	20000	20000
	11:30	15.7	1	20000	20000		11:30	15.7	1	20000	20000
	12:30	15.6	1	20000	20000		12:30	15.6	1	20000	20000
	13:30	13.4	1	20000	20000		13:30	13.4	1	20000	20000
	14:30	9.3	1	20000	20000		14:30	9.3	1	20000	20000
	15:30	3.6	1	20000	20000		15:30	3.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 15/Nov	00:30	0	0	20000	0	Thu, 15/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.8	1	20000	20000		08:30	3.8	1	20000	20000
	09:30	9.4	1	20000	20000		09:30	9.4	1	20000	20000
	10:30	13.4	1	20000	20000		10:30	13.4	1	20000	20000
	11:30	15.4	1	20000	20000		11:30	15.4	1	20000	20000
	12:30	15.4	1	20000	20000		12:30	15.4	1	20000	20000
	13:30	13.2	1	20000	20000		13:30	13.2	1	20000	20000
	14:30	9.1	1	20000	20000		14:30	9.1	1	20000	20000
	15:30	3.4	1	20000	20000		15:30	3.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 16/Nov	00:30	0	0	20000	0	Fri, 16/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0

	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.5	1	20000	20000		08:30	3.5	1	20000	20000
	09:30	9.1	1	20000	20000		09:30	9.1	1	20000	20000
	10:30	13.1	1	20000	20000		10:30	13.1	1	20000	20000
	11:30	15.2	1	20000	20000		11:30	15.2	1	20000	20000
	12:30	15.1	1	20000	20000		12:30	15.1	1	20000	20000
	13:30	13	1	20000	20000		13:30	13	1	20000	20000
	14:30	8.9	1	20000	20000		14:30	8.9	1	20000	20000
	15:30	3.2	1	20000	20000		15:30	3.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 17/Nov	00:30	0	0	20000	0	Sat, 17/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.3	1	20000	20000		08:30	3.3	1	20000	20000
	09:30	8.9	1	20000	20000		09:30	8.9	1	20000	20000
	10:30	12.9	1	20000	20000		10:30	12.9	1	20000	20000
	11:30	14.9	1	20000	20000		11:30	14.9	1	20000	20000
	12:30	14.9	1	20000	20000		12:30	14.9	1	20000	20000
	13:30	12.7	1	20000	20000		13:30	12.7	1	20000	20000
	14:30	8.7	1	20000	20000		14:30	8.7	1	20000	20000
	15:30	3	1	20000	20000		15:30	3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 18/Nov	00:30	0	0	20000	0	Sun, 18/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3	1	20000	20000		08:30	3	1	20000	20000
	09:30	8.6	1	20000	20000		09:30	8.6	1	20000	20000
	10:30	12.6	1	20000	20000		10:30	12.6	1	20000	20000
	11:30	14.7	1	20000	20000		11:30	14.7	1	20000	20000
	12:30	14.6	1	20000	20000		12:30	14.6	1	20000	20000
	13:30	12.5	1	20000	20000		13:30	12.5	1	20000	20000
	14:30	8.4	1	20000	20000		14:30	8.4	1	20000	20000
	15:30	2.8	1	20000	20000		15:30	2.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 19/Nov	00:30	0	0	20000	0	Mon, 19/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.8	1	20000	20000		08:30	2.8	1	20000	20000
	09:30	8.4	1	20000	20000		09:30	8.4	1	20000	20000
	10:30	12.4	1	20000	20000		10:30	12.4	1	20000	20000
	11:30	14.4	1	20000	20000		11:30	14.4	1	20000	20000
	12:30	14.4	1	20000	20000		12:30	14.4	1	20000	20000
	13:30	12.3	1	20000	20000		13:30	12.3	1	20000	20000
	14:30	8.2	1	20000	20000		14:30	8.2	1	20000	20000
	15:30	2.6	1	20000	20000		15:30	2.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 20/Nov	00:30	0	0	20000	0	Tue, 20/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.5	1	20000	20000		08:30	2.5	1	20000	20000
	09:30	8.1	1	20000	20000		09:30	8.1	1	20000	20000
	10:30	12.1	1	20000	20000		10:30	12.1	1	20000	20000
	11:30	14.2	1	20000	20000		11:30	14.2	1	20000	20000
	12:30	14.2	1	20000	20000		12:30	14.2	1	20000	20000
	13:30	12.1	1	20000	20000		13:30	12.1	1	20000	20000
	14:30	8	1	20000	20000		14:30	8	1	20000	20000
	15:30	2.4	1	20000	20000		15:30	2.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 21/Nov	00:30	0	0	20000	0	Wed, 21/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.3	1	20000	20000		08:30	2.3	1	20000	20000
	09:30	7.9	1	20000	20000		09:30	7.9	1	20000	20000
	10:30	11.9	1	20000	20000		10:30	11.9	1	20000	20000
	11:30	14	1	20000	20000		11:30	14	1	20000	20000
	12:30	14	1	20000	20000		12:30	14	1	20000	20000
	13:30	11.9	1	20000	20000		13:30	11.9	1	20000	20000
	14:30	7.8	1	20000	20000		14:30	7.8	1	20000	20000
	15:30	2.2	1	20000	20000		15:30	2.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0

	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 22/Nov	00:30	0	0	20000	0	Thu, 22/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.1	1	20000	20000		08:30	2.1	1	20000	20000
	09:30	7.7	1	20000	20000		09:30	7.7	1	20000	20000
	10:30	11.7	1	20000	20000		10:30	11.7	1	20000	20000
	11:30	13.7	1	20000	20000		11:30	13.7	1	20000	20000
	12:30	13.7	1	20000	20000		12:30	13.7	1	20000	20000
	13:30	11.7	1	20000	20000		13:30	11.7	1	20000	20000
	14:30	7.7	1	20000	20000		14:30	7.7	1	20000	20000
	15:30	2.1	1	20000	20000		15:30	2.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 23/Nov	00:30	0	0	20000	0	Fri, 23/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.9	1	20000	20000		08:30	1.9	1	20000	20000
	09:30	7.4	1	20000	20000		09:30	7.4	1	20000	20000
	10:30	11.4	1	20000	20000		10:30	11.4	1	20000	20000
	11:30	13.5	1	20000	20000		11:30	13.5	1	20000	20000
	12:30	13.5	1	20000	20000		12:30	13.5	1	20000	20000
	13:30	11.5	1	20000	20000		13:30	11.5	1	20000	20000
	14:30	7.5	1	20000	20000		14:30	7.5	1	20000	20000
	15:30	1.9	1	20000	20000		15:30	1.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 24/Nov	00:30	0	0	20000	0	Sat, 24/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.6	1	20000	20000		08:30	1.6	1	20000	20000
	09:30	7.2	1	20000	20000		09:30	7.2	1	20000	20000
	10:30	11.2	1	20000	20000		10:30	11.2	1	20000	20000
	11:30	13.3	1	20000	20000		11:30	13.3	1	20000	20000
	12:30	13.3	1	20000	20000		12:30	13.3	1	20000	20000
	13:30	11.3	1	20000	20000		13:30	11.3	1	20000	20000
	14:30	7.3	1	20000	20000		14:30	7.3	1	20000	20000
	15:30	1.8	1	20000	20000		15:30	1.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 25/Nov	00:30	0	0	20000	0	Sun, 25/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.4	1	20000	20000		08:30	1.4	1	20000	20000
	09:30	7	1	20000	20000		09:30	7	1	20000	20000
	10:30	11	1	20000	20000		10:30	11	1	20000	20000
	11:30	13.1	1	20000	20000		11:30	13.1	1	20000	20000
	12:30	13.1	1	20000	20000		12:30	13.1	1	20000	20000
	13:30	11.1	1	20000	20000		13:30	11.1	1	20000	20000
	14:30	7.1	1	20000	20000		14:30	7.1	1	20000	20000
	15:30	1.6	1	20000	20000		15:30	1.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 26/Nov	00:30	0	0	20000	0	Mon, 26/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.2	1	20000	20000		08:30	1.2	1	20000	20000
	09:30	6.8	1	20000	20000		09:30	6.8	1	20000	20000
	10:30	10.8	1	20000	20000		10:30	10.8	1	20000	20000
	11:30	12.9	1	20000	20000		11:30	12.9	1	20000	20000
	12:30	12.9	1	20000	20000		12:30	12.9	1	20000	20000
	13:30	10.9	1	20000	20000		13:30	10.9	1	20000	20000
	14:30	7	1	20000	20000		14:30	7	1	20000	20000
	15:30	1.5	1	20000	20000		15:30	1.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 27/Nov	00:30	0	0	20000	0	Tue, 27/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1	1	20000	20000		08:30	1	1	20000	20000
	09:30	6.6	1	20000	20000		09:30	6.6	1	20000	20000
	10:30	10.6	1	20000	20000		10:30	10.6	1	20000	20000
	11:30	12.7	1	20000	20000		11:30	12.7	1	20000	20000
	12:30	12.8	1	20000	20000		12:30	12.8	1	20000	20000
	13:30	10.7	1	20000	20000		13:30	10.7	1	20000	20000
	14:30	6.8	1	20000	20000		14:30	6.8	1	20000	20000

	15:30	1.3	1	20000	20000		15:30	1.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 28/Nov	00:30	0	0	20000	0	Wed, 28/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.8	1	20000	20000		08:30	0.8	1	20000	20000
	09:30	6.4	1	20000	20000		09:30	6.4	1	20000	20000
	10:30	10.4	1	20000	20000		10:30	10.4	1	20000	20000
	11:30	12.5	1	20000	20000		11:30	12.5	1	20000	20000
	12:30	12.6	1	20000	20000		12:30	12.6	1	20000	20000
	13:30	10.6	1	20000	20000		13:30	10.6	1	20000	20000
	14:30	6.7	1	20000	20000		14:30	6.7	1	20000	20000
	15:30	1.2	1	20000	20000		15:30	1.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 29/Nov	00:30	0	0	20000	0	Thu, 29/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.6	1	20000	20000		08:30	0.6	1	20000	20000
	09:30	6.2	1	20000	20000		09:30	6.2	1	20000	20000
	10:30	10.2	1	20000	20000		10:30	10.2	1	20000	20000
	11:30	12.3	1	20000	20000		11:30	12.3	1	20000	20000
	12:30	12.4	1	20000	20000		12:30	12.4	1	20000	20000
	13:30	10.4	1	20000	20000		13:30	10.4	1	20000	20000
	14:30	6.5	1	20000	20000		14:30	6.5	1	20000	20000
	15:30	1.1	1	20000	20000		15:30	1.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 30/Nov	00:30	0	0	20000	0	Fri, 30/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.4	1	20000	20000		08:30	0.4	1	20000	20000
	09:30	6	1	20000	20000		09:30	6	1	20000	20000
	10:30	10	1	20000	20000		10:30	10	1	20000	20000
	11:30	12.2	1	20000	20000		11:30	12.2	1	20000	20000
	12:30	12.2	1	20000	20000		12:30	12.2	1	20000	20000
	13:30	10.3	1	20000	20000		13:30	10.3	1	20000	20000
	14:30	6.4	1	20000	20000		14:30	6.4	1	20000	20000
	15:30	1	1	20000	20000		15:30	1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 01/Dec	00:30	0	0	20000	0	Sat, 01/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.2	1	20000	20000		08:30	0.2	1	20000	20000
	09:30	5.8	1	20000	20000		09:30	5.8	1	20000	20000
	10:30	9.8	1	20000	20000		10:30	9.8	1	20000	20000
	11:30	12	1	20000	20000		11:30	12	1	20000	20000
	12:30	12.1	1	20000	20000		12:30	12.1	1	20000	20000
	13:30	10.1	1	20000	20000		13:30	10.1	1	20000	20000
	14:30	6.3	1	20000	20000		14:30	6.3	1	20000	20000
	15:30	0.8	1	20000	20000		15:30	0.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 02/Dec	00:30	0	0	20000	0	Sun, 02/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.1	1	20000	20000		08:30	0.1	1	20000	20000
	09:30	5.7	1	20000	20000		09:30	5.7	1	20000	20000
	10:30	9.7	1	20000	20000		10:30	9.7	1	20000	20000
	11:30	11.8	1	20000	20000		11:30	11.8	1	20000	20000
	12:30	11.9	1	20000	20000		12:30	11.9	1	20000	20000
	13:30	10	1	20000	20000		13:30	10	1	20000	20000
	14:30	6.2	1	20000	20000		14:30	6.2	1	20000	20000
	15:30	0.7	1	20000	20000		15:30	0.7	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 03/Dec	00:30	0	0	20000	0	Mon, 03/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0

	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.5	1	20000	20000		09:30	5.5	1	20000	20000
	10:30	9.5	1	20000	20000		10:30	9.5	1	20000	20000
	11:30	11.7	1	20000	20000		11:30	11.7	1	20000	20000
	12:30	11.8	1	20000	20000		12:30	11.8	1	20000	20000
	13:30	9.9	1	20000	20000		13:30	9.9	1	20000	20000
	14:30	6.1	1	20000	20000		14:30	6.1	1	20000	20000
	15:30	0.7	1	20000	20000		15:30	0.7	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 04/Dec	00:30	0	0	20000	0	Tue, 04/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.3	1	20000	20000		09:30	5.3	1	20000	20000
	10:30	9.3	1	20000	20000		10:30	9.3	1	20000	20000
	11:30	11.5	1	20000	20000		11:30	11.5	1	20000	20000
	12:30	11.7	1	20000	20000		12:30	11.7	1	20000	20000
	13:30	9.8	1	20000	20000		13:30	9.8	1	20000	20000
	14:30	6	1	20000	20000		14:30	6	1	20000	20000
	15:30	0.6	1	20000	20000		15:30	0.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 05/Dec	00:30	0	0	20000	0	Wed, 05/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.2	1	20000	20000		09:30	5.2	1	20000	20000
	10:30	9.2	1	20000	20000		10:30	9.2	1	20000	20000
	11:30	11.4	1	20000	20000		11:30	11.4	1	20000	20000
	12:30	11.5	1	20000	20000		12:30	11.5	1	20000	20000
	13:30	9.6	1	20000	20000		13:30	9.6	1	20000	20000
	14:30	5.9	1	20000	20000		14:30	5.9	1	20000	20000
	15:30	0.5	1	20000	20000		15:30	0.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 06/Dec	00:30	0	0	20000	0	Thu, 06/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5	1	20000	20000		09:30	5	1	20000	20000
	10:30	9	1	20000	20000		10:30	9	1	20000	20000
	11:30	11.2	1	20000	20000		11:30	11.2	1	20000	20000
	12:30	11.4	1	20000	20000		12:30	11.4	1	20000	20000
	13:30	9.5	1	20000	20000		13:30	9.5	1	20000	20000
	14:30	5.8	1	20000	20000		14:30	5.8	1	20000	20000
	15:30	0.4	1	20000	20000		15:30	0.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 07/Dec	00:30	0	0	20000	0	Fri, 07/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.9	1	20000	20000		09:30	4.9	1	20000	20000
	10:30	8.9	1	20000	20000		10:30	8.9	1	20000	20000
	11:30	11.1	1	20000	20000		11:30	11.1	1	20000	20000
	12:30	11.3	1	20000	20000		12:30	11.3	1	20000	20000
	13:30	9.4	1	20000	20000		13:30	9.4	1	20000	20000
	14:30	5.7	1	20000	20000		14:30	5.7	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 08/Dec	00:30	0	0	20000	0	Sat, 08/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.7	1	20000	20000		09:30	4.7	1	20000	20000
	10:30	8.8	1	20000	20000		10:30	8.8	1	20000	20000
	11:30	11	1	20000	20000		11:30	11	1	20000	20000
	12:30	11.2	1	20000	20000		12:30	11.2	1	20000	20000
	13:30	9.3	1	20000	20000		13:30	9.3	1	20000	20000
	14:30	5.6	1	20000	20000		14:30	5.6	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 09/Dec	00:30	0	0	20000	0	Sun, 09/Dec	00:30	0	0	20000	0

	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.6	1	20000	20000		09:30	4.6	1	20000	20000
	10:30	8.7	1	20000	20000		10:30	8.7	1	20000	20000
	11:30	10.9	1	20000	20000		11:30	10.9	1	20000	20000
	12:30	11.1	1	20000	20000		12:30	11.1	1	20000	20000
	13:30	9.3	1	20000	20000		13:30	9.3	1	20000	20000
	14:30	5.6	1	20000	20000		14:30	5.6	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 10/Dec	00:30	0	0	20000	0	Mon, 10/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.5	1	20000	20000		09:30	4.5	1	20000	20000
	10:30	8.5	1	20000	20000		10:30	8.5	1	20000	20000
	11:30	10.8	1	20000	20000		11:30	10.8	1	20000	20000
	12:30	11	1	20000	20000		12:30	11	1	20000	20000
	13:30	9.2	1	20000	20000		13:30	9.2	1	20000	20000
	14:30	5.5	1	20000	20000		14:30	5.5	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 11/Dec	00:30	0	0	20000	0	Tue, 11/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.3	1	20000	20000		09:30	4.3	1	20000	20000
	10:30	8.4	1	20000	20000		10:30	8.4	1	20000	20000
	11:30	10.7	1	20000	20000		11:30	10.7	1	20000	20000
	12:30	10.9	1	20000	20000		12:30	10.9	1	20000	20000
	13:30	9.1	1	20000	20000		13:30	9.1	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 12/Dec	00:30	0	0	20000	0	Wed, 12/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.2	1	20000	20000		09:30	4.2	1	20000	20000
	10:30	8.3	1	20000	20000		10:30	8.3	1	20000	20000
	11:30	10.6	1	20000	20000		11:30	10.6	1	20000	20000
	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
	13:30	9.1	1	20000	20000		13:30	9.1	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 13/Dec	00:30	0	0	20000	0	Thu, 13/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.1	1	20000	20000		09:30	4.1	1	20000	20000
	10:30	8.2	1	20000	20000		10:30	8.2	1	20000	20000
	11:30	10.5	1	20000	20000		11:30	10.5	1	20000	20000
	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
	13:30	9	1	20000	20000		13:30	9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 14/Dec	00:30	0	0	20000	0	Fri, 14/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4	1	20000	20000		09:30	4	1	20000	20000
	10:30	8.1	1	20000	20000		10:30	8.1	1	20000	20000
	11:30	10.4	1	20000	20000		11:30	10.4	1	20000	20000
	12:30	10.7	1	20000	20000		12:30	10.7	1	20000	20000
	13:30	9	1	20000	20000		13:30	9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0

	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 15/Dec	00:30	0	0	20000	0	Sat, 15/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.9	1	20000	20000		09:30	3.9	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.4	1	20000	20000		11:30	10.4	1	20000	20000
	12:30	10.7	1	20000	20000		12:30	10.7	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 16/Dec	00:30	0	0	20000	0	Sun, 16/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.3	1	20000	20000		11:30	10.3	1	20000	20000
	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 17/Dec	00:30	0	0	20000	0	Mon, 17/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	7.9	1	20000	20000		10:30	7.9	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 18/Dec	00:30	0	0	20000	0	Tue, 18/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.7	1	20000	20000		09:30	3.7	1	20000	20000
	10:30	7.8	1	20000	20000		10:30	7.8	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 19/Dec	00:30	0	0	20000	0	Wed, 19/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	7.8	1	20000	20000		10:30	7.8	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.8	1	20000	20000		13:30	8.8	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 20/Dec	00:30	0	0	20000	0	Thu, 20/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000

	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.8	1	20000	20000		13:30	8.8	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 21/Dec	00:30	0	0	20000	0	Fri, 21/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.5	1	20000	20000		09:30	3.5	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 22/Dec	00:30	0	0	20000	0	Sat, 22/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.5	1	20000	20000		09:30	3.5	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 23/Dec	00:30	0	0	20000	0	Sun, 23/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 24/Dec	00:30	0	0	20000	0	Mon, 24/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
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	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 25/Dec	00:30	0	0	20000	0	Tue, 25/Dec	00:30	0	0	20000	0
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	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
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	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
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	14:30	5.5	1	20000	20000		14:30	5.5	1	20000	20000
	15:30	0.4	1	20000	20000		15:30	0.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
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	22:30	0	0	20000	0		22:30	0	0	20000	0
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Wed, 26/Dec	00:30	0	0	20000	0	Wed, 26/Dec	00:30	0	0	20000	0
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	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
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Thu, 27/Dec	00:30	0	0	20000	0	Thu, 27/Dec	00:30	0	0	20000	0
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	04:30	0	0	20000	0		04:30	0	0	20000	0
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	07:30	0	0	20000	0		07:30	0	0	20000	0
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	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
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	14:30	5.6	1	20000	20000		14:30	5.6	1	20000	20000
	15:30	0.5	1	20000	20000		15:30	0.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
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	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 28/Dec	00:30	0	0	20000	0	Fri, 28/Dec	00:30	0	0	20000	0
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	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
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	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	9.1	1	20000	20000		13:30	9.1	1	20000	20000
	14:30	5.7	1	20000	20000		14:30	5.7	1	20000	20000
	15:30	0.6	1	20000	20000		15:30	0.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
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	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 29/Dec	00:30	0	0	20000	0	Sat, 29/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
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	04:30	0	0	20000	0		04:30	0	0	20000	0
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	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
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	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
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	12:30	10.7	1	20000	20000		12:30	10.7	1	20000	20000
	13:30	9.2	1	20000	20000		13:30	9.2	1	20000	20000
	14:30	5.8	1	20000	20000		14:30	5.8	1	20000	20000
	15:30	0.7	1	20000	20000		15:30	0.7	1	20000	20000
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Sun, 30/Dec	00:30	0	0	20000	0	Sun, 30/Dec	00:30	0	0	20000	0
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	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
	13:30	9.3	1	20000	20000		13:30	9.3	1	20000	20000
	14:30	5.9	1	20000	20000		14:30	5.9	1	20000	20000
	15:30	0.8	1	20000	20000		15:30	0.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
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	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 31/Dec	00:30	0	0	20000	0	Mon, 31/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	08:30	0	0	20000	0		08:30	0	0	20000	0
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	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
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	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
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	14:30	5.9	1	20000	20000		14:30	5.9	1	20000	20000
	15:30	0.9	1	20000	20000		15:30	0.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
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	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0

21:30	0	0	20000	0		
22:30	0	0	20000	0		
23:30	0	0	20000	0		
				88200000	**88200**	**88.2**
				(W)	(kW)	(MWh)

21:30	0	0	20000	0		
22:30	0	0	20000	0		
23:30	0	0	20000	0		
				88200000	88200	88.2
				(W)	(kW)	(MWh)

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Time	DHW (litres/hour)	DHW (litres/second)	Percentage
00:00	416	0.12	6
01:00	416	0.12	6
02:00	416	0.12	6
03:00	416	0.12	6
04:00	416	0.12	6
05:00	416	0.12	6
06:00	416	0.12	6
07:00	6803	1.89	100
08:00	863	0.24	13
09:00	863	0.24	13
10:00	863	0.24	13
11:00	863	0.24	13
12:00	1928	0.54	28
13:00	863	0.24	13
14:00	863	0.24	13
15:00	863	0.24	13
16:00	863	0.24	13
17:00	6803	1.89	100
18:00	863	0.24	13
19:00	863	0.24	13
20:00	863	0.24	13
21:00	863	0.24	13
22:00	863	0.24	13
23:00	416	0.12	6

Catering	1065
Showers	5738
Day base	863
Night Base	416

Hospital		
Daily hot water consumption per person	155	L/person/day
Number of beds	255	
Daily volume of hot water consumed	39525	Litres
Hourly volume of hot water consumed	1646.9	Litres

Catering		
Total meals	255	(meal per bed)
Total meals for staff	100	(estimate)
Total meals	355	
Hot water consumed per meal	3	Litres
Total hot water consumed per meal	1065	Litres
Assume 3 meals per day		
Daily hot water consumed for meals	3195	Litres
Total daily hot water consumed	42720	Litres

Showers		
Number of showers	255	(shower per bed)
Duration	5	minutes
Hot water flow rate per shower	0.1	Litres/s
Diversity	0.75	(assumed)
Total hot water consumption	5737.5	Litres
Assume showering twice per day AM/PM	2	showers/day
Total daily hot water consumption	11475	Litres

CIBSE Guide G Public Health Engineering (CIBSE, 2004) Table 2.10 includes daily hot water use for various types of buildings. We have taken an average figure of 155 L/person/day based on the different mix of Hospital building wards. This figure has been selected based on Engineering knowledge and experience of similar projects. We have applied this daily DHW figure to the number of beds in the proposed building. We have also allowed for catering DHW, with the assumption that 3 meals will be provided per day.
We have developed the DHW profile based on Engineering judgement of how we expect the building to operate. Peak DHW usage are expected to occur during the morning and evenings when showers is assumed to be the peak DHW demand.
The figures have been used to calculate the total mass of hot water use per year by multiplying the values by the number of beds and meals and the days that the building is occupied.
The following details our calculation to evaluate the daily DHW usage.

From: Liane Edwards-Scott [auto-reply-lhr@[redacted] on behalf of Liane Edwards-Scott
Sent: 28 October 2014 08:20
To: Liane Edwards-Scott
Subject: BMCE-GC-001400: Re: PCP 4.10 ACNXREF<eTrzvyLdMgMj6R6KhIJJSB>

You have received a new **General Correspondence: BMCE-GC-001400**

Project: RHSC & DCN (PB)
Type: General Correspondence
Mail Number: BMCE-GC-001400
To: **Liane Edwards-Scott, Brookfield Multiplex Construction Europe**
Maureen Brown, Mott MacDonald Ltd (Head Office UK)
Graeme Greer, Mott MacDonald Ltd (Head Office UK)
Mr Kamil Kolodziejczyk, Mott MacDonald Ltd (Head Office UK)
Sorrel Cosens, NHS Lothian
NHSL RHSC + DCN, NHS Lothian
Cc: Mr Panya Upama, Bouygues E&S FM
Mr John Ballantyne, Brookfield Multiplex Construction Europe
Mr Benjamin Press, Brookfield Multiplex Construction Europe
Mr Paul Serkis, Brookfield Multiplex Construction Europe
Mr Chris Mackay, Burness Paull
Christopher Mackay, Burness Paull
Mr Richard Osborne, Macquarie Capital Group Limited
From: L Edwards-Scott, Brookfield Multiplex Construction Europe
Sent: 28/10/2014 8:20:10 AM GMT (GMT +00:00)
Attribute 1: Stage 2 - Preferred Bid
Attribute 2: 01 Employer's Requirements
Status: N/A
Subject: **Re: PCP 4.10**

Apologies, wrong attachment last time (thanks Mo).

From: L Edwards-Scott
Sent: 27/10/2014 2:58:51 PM GMT (GMT +00:00)
To: Maureen Brown, Graeme Greer, Kamil Kolodziejczyk, Sorrel Cosens, NHSL RHSC + DCN
Cc: Panya Upama, John Ballantyne, Benjamin Press, Paul Serkis, Chris Mackay, Christopher Mackay, Richard Osborne
Mail Number: BMCE-GC-001399
Subject: PCP 4.10

Please see attached proposed final draft for review.

Regards

LE

Liane Edwards-Scott *ARB*

File Attachment
4.10 Sustainability and Energy Model - Issue 5.pdf

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UK: 0845 22 66 391
Int: +44 845 22 66 391

Regards,
The Aconex Team

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http://www.mailcontrol.com

From: Ms Janice Mackenzie - NHS Lothian <[redacted] on behalf of Ms Janice Mackenzie - NHS Lothian
Sent: 13 January 2015 11:32
To: Liane Edwards-Scott - Brookfield Multiplex Construction Europe; Mr Alan Keeley - Brookfield Multiplex Construction Europe
Cc: Maureen Brown - Mott MacDonald Ltd (Head Office UK); Mr David Stillie - Mott MacDonald Ltd (Head Office UK); Sorrel Cosens - NHS Lothian; Fiona Halcrow - NHS Lothian; NHSL RHSC + DCN - NHS Lothian; Mr Ken Hall - Brookfield Multiplex Construction Europe
Subject: HAI Scribe Stage 3 Construction

Dear Both

We had scheduled a meeting today to complete HAI Scribe Stage 3 but unfortunately we could not proceed with the meeting as key individuals were not present. We did however manage to discuss the ventilation query and we will now review the information we were given at the meeting, which Ken is going to send electronically.

As you will be aware this stage of HAI Scribe has to be completed prior to any construction starting on site. HFS have recently reviewed and changed HAI Scribe documentation and it is the new documentation that we are using.

When we completed Stage 2 at the workshop on 19th November we agreed that NHSL and their TAs would review the Stage 3 template and complete it in draft format which we would then review with IHSL at today's workshop. In order to progress this those of us who were at today's workshop agreed that in the first instance we would send you the completed draft and request that you review this and amend the document as appropriate. It is important that the as well as checking the yes/no/n/a responses that additional information is provided in the comments boxes to justify the response.

Given the need to have this completed prior to construction commencing and the need for us to review the completed documentation internally before we can sign off we do need to turn this around quickly. It may also be that we will require to meet to review the documentation but will advice of this once we have the completed documentation back from you.

Janice

Janice MacKenzie

Clinical Director

RHSC + DCN - Little France

56 Canaan Lane

Edinburgh

EH10 4SG

T: [redacted]

M: [redacted]

From: Ken Hall [ken.hall@ on behalf of Ken Hall
Sent: 13 January 2015 14:27
To: janice.mackenzie@ [janice.mackenzie
david.stillie@ [David.Stillie@
Cc: Brown, Maureen (Maureen.Brown@ [Maureen.Brown@ Little France@WallaceWhittle (LittleFrance@ [LittleFrance@
Macrae, Colin [Colin.Macrae@
Subject: FW: G1547 Little France - Air Movement Report Single Bedrooms
Attachments: 20141127 air movement.pdf; G1547 Air Flows & Room Pressures.pdf

Janice / David

As requested email copy of the report from this morning if you could pass a copy to Janette for feedback.

Any questions let me know.

Thanks.

Ken Hall BEng(Hons) MBA CEng MIET MCIBSE MSLL
M&E Design Manager

Brookfield Multiplex Europe
RHSC & DCN Project Office
56 Canaan Lane,
Edinburgh,
EH10 4SG,
United Kingdom
T +
E ken.hal
W www.brookfieldmultiplex.com

Please note that my email address has changed to ken.hall@ kindly update your address book accordingly.

Please consider the environment before printing this email.

From: Little France@ [mailto:LittleFrance@
Sent: 12 January 2015 15:18
To: Ken Hall
Cc: Little France@ Glasgow Filing
Subject: RE: G1547 Little France - Air Movement Report Single Bedrooms

Ken,

As requested, see enclosed an updated copy of our Air Movement Report for The Single Bedrooms.

Regards,

Brian Rutherford
Senior Mechanical Engineer
IEng ACIBSE

TUV SUD Limited
The Venlaw Building
349 Bath Street
Glasgow
G2 4AA
United Kingdom

Tel: +[redacted]
Fax: [redacted]
Brian.Rutherford@[redacted]
www.tuv-sud.co.uk/wallacewhittle

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RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

1.0 Introduction

We have been asked to review the air movement within the single bedrooms under various ventilation scenarios.

1. Windows and trickle vents closed, no natural ventilation, mechanical ventilation only provided to the bedrooms.

2. Windows and window trickle vents open, natural and mechanical ventilation provided to the bedrooms.

3. Some of the windows and window trickle vents open and some closed, mixture of natural and mechanical ventilation to the bedrooms.

2.0 Interpretation of SHTM 03 Ventilation for Healthcare Premises

A single room within Appendix 1 : Table A1 : Recommended air-change rates is given under the ventilation column as supply/extract/natural, with 6 ac/hr and room pressure as zero or negative. The single room WC from the table is 3 ac/hr and room pressure is negative.

Current bedroom ventilation design is supply into the room at 4 ac/hr with opening windows and trickle vents to provide natural ventilation, this gives a balanced room pressure as long as the window is open.

The single bedroom WC extract has been enhanced to 10 ac/hr and the room pressure is negative.

3.0 Ventilation Scenario's

Scenario 1

1. Bedroom is positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows to the corridor via doors.
4. Corridor is provided with extract ventilation, pressure is balanced.

Scenario 2

1. Bedroom has balanced pressure.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows and trickle vents.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms and other rooms.

RHSC – DCN Edinburgh
Air Movement Report For Single Bedrooms (Draft)

Wallace Whittle

Scenario 3

1. Bedrooms with open windows have balanced pressure and bedrooms with closed windows are positively pressurised by supply air.
2. En-suite is negative pressure to the bedroom.
3. Excess bedroom air flows out the open windows or through the bedroom doors if the windows are closed.
4. Corridor is provided with extract ventilation, pressure is negative to surrounding bedrooms.

Refer to Appendix 1 for the Air Flow and Resultant Room Pressure drawings.

The original reference design as detailed within the Environmental Matrix is as follows:-

Bedroom - Supply 4Ac/Hr & Room Pressure Positive.
WC – Extract 10Ac/Hr & Room Pressure Negative.

4.0 Conclusion

Reviewing the three air flow and resultant room pressure scenario drawings G1547/(57)SK01-SK03:

When the windows and trickle vents are utilised for natural ventilation the bedroom pressure is balanced and the corridor becomes negative.

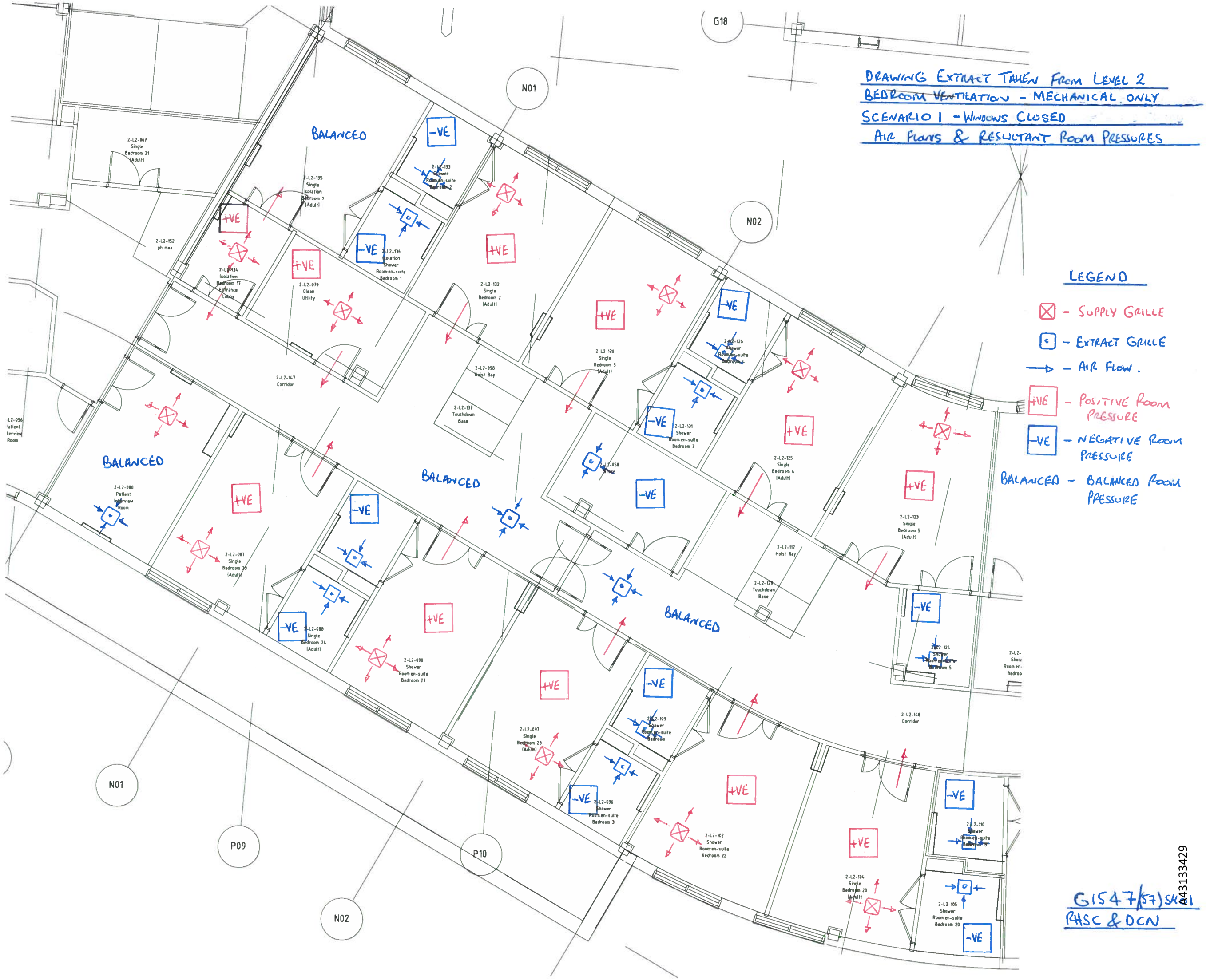
If some of the windows and trickle vents are closed, these bedrooms will become positive and the bedrooms with open windows again will be balanced, where the corridor is negative.

Should all the bedroom windows and trickle vents be closed, the bedroom pressure is positive and the corridor shall be balanced as the corridor extract rate will match the supply air coming from the bedrooms via their doors.

The window trickle vents should be left open when the rooms are occupied, this will ensure that the bedroom pressure is balanced.

By utilising the proposed mixed mode ventilation proposal for the bedrooms, ie. opening windows and trickle vents with the supply air reduced from 6Ac/Hr to 4Ac/Hr direct into the bedroom, this will provide the most energy efficient solution for the space.

We believe that we have complied with the reference design concept as detailed within the original Environmental Matrix.


DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION - MECHANICAL ONLY
SCENARIO 1 - WINDOWS CLOSED
AIR FLOWS & RESULTANT ROOM PRESSURES
LEGEND
- SUPPLY GRILLE
- EXTRACT GRILLE
- AIR FLOW.
+VE - POSITIVE ROOM PRESSURE
-VE - NEGATIVE ROOM PRESSURE
BALANCED - BALANCED ROOM PRESSURE
G18
N01
N02
P09
P10
BALANCED
+VE
-VE
2-L2-067 Single Bedroom 21 (Adult)
2-L2-152 ph mea
2-L2-135 Single Isolation Bedroom 1 (Adult)
2-L2-133 Shower Room-en-suite Bedroom 2
2-L2-136 Isolation Shower Room-en-suite Bedroom 1
2-L2-134 Isolation Bedroom 17 Entrance Lobby
2-L2-079 Clean Utility
2-L2-132 Single Bedroom 2 (Adult)
2-L2-147 Corridor
2-L2-098 Hoist Bay
2-L2-137 Touchdown Base
2-L2-130 Single Bedroom 3 (Adult)
2-L2-126 Shower Room-en-suite Bedroom 4
2-L2-131 Shower Room-en-suite Bedroom 3
2-L2-125 Single Bedroom 4 (Adult)
2-L2-123 Single Bedroom 5 (Adult)
2-L2-112 Hoist Bay
2-L2-129 Touchdown Base
2-L2-080 Patient Interview Room
2-L2-087 Single Bedroom 25 (Adult)
2-L2-088 Single Bedroom 24 (Adult)
2-L2-090 Shower Room-en-suite Bedroom 23
2-L2-097 Single Bedroom 23 (Adult)
2-L2-103 Shower Room-en-suite Bedroom
2-L2-096 Shower Room-en-suite Bedroom 3
2-L2-102 Shower Room-en-suite Bedroom 22
2-L2-148 Corridor
2-L2-110 Shower Room-en-suite Bedroom 19
2-L2-104 Single Bedroom 20 (Adult)
2-L2-105 Shower Room-en-suite Bedroom 20
G1547/(57)SK01
RHSC & DCN
A43133429

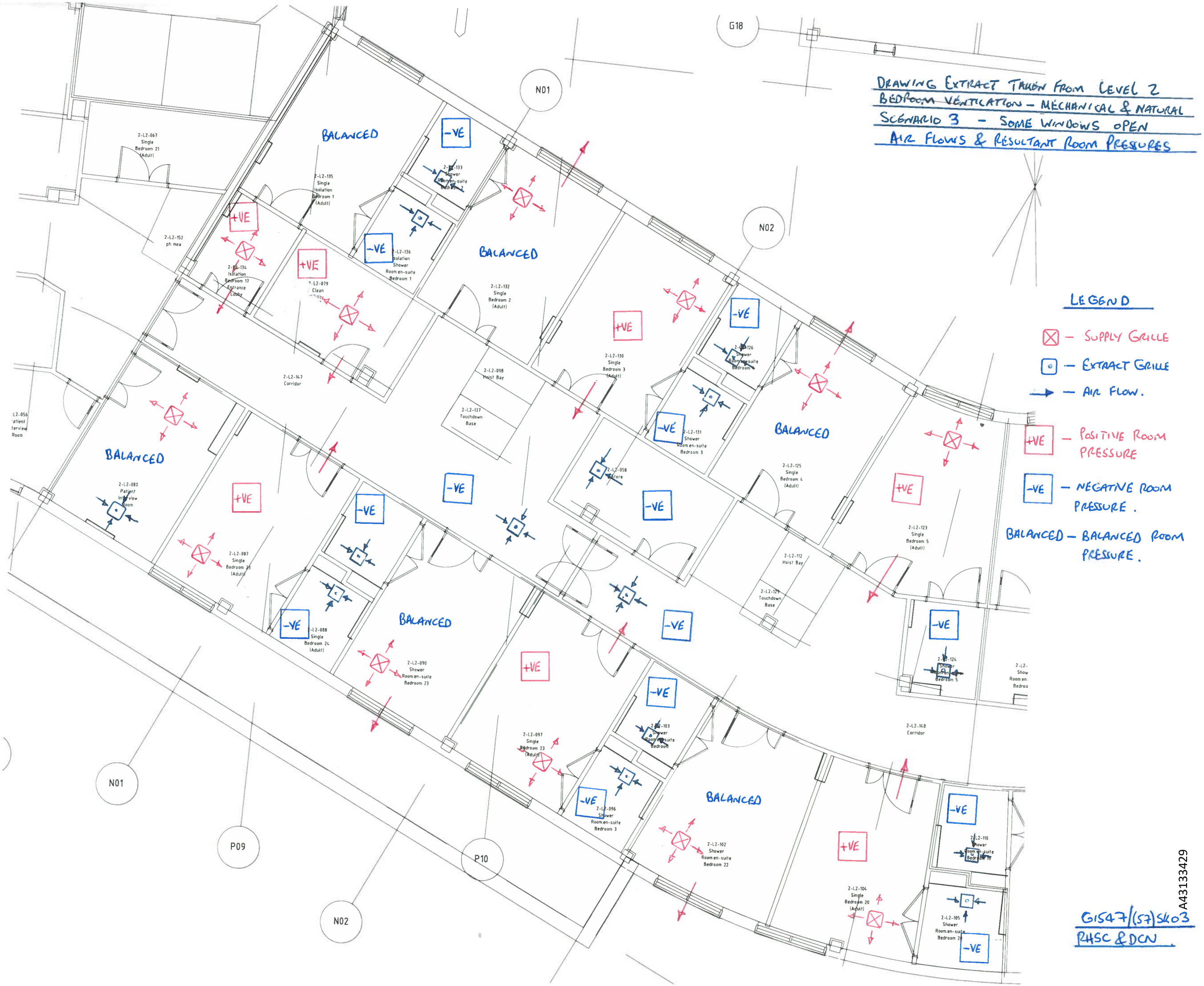
DRAWING EXTRACT TAKEN FROM LEVEL 2
BEDROOM VENTILATION – MECHANICAL & NATURAL
SCENARIO 2 – WINDOWS OPEN
AIR FLOWS & RESULTANT ROOM PRESSURES

LEGEND.

- ⊠ – SUPPLY GRILLE
- ⊡ – EXTRACT GRILLE
- → – AIR FLOW
- +VE – POSITIVE ROOM PRESSURE
- -VE – NEGATIVE ROOM PRESSURE
- BALANCED – BALANCED ROOM PRESSURE

G1547/(57)SK42
RHSC & DCN.

A43133429



G1547/(57)SK03
RHSC & DCN

A43133429

From: Mr Ken Hall - Brookfield Multiplex Construction Europe [redacted] on behalf of Mr Ken Hall - Brookfield Multiplex Construction Europe
Sent: 19 January 2015 09:54
To: Maureen Brown - Mott MacDonald Ltd (Head Office UK); Ms Janice Mackenzie - NHS Lothian
Cc: Colin MacRae - Mott MacDonald Ltd (Head Office UK); Mr David Stillie - Mott MacDonald Ltd (Head Office UK); Mr Stewart McKechnie - Wallace Whittle
Subject: Bedroom Ventilation: HAI Scribe Confirmation

As per meeting of Tuesday 13.01.15 and our request for clarity on negative / positive pressure regime within the bedrooms, we attach the sketches distributed at the meeting and seek confirmation /acceptance from the NHS review with infection control.

Thanks

Ken

From: Greer, Graeme [graeme.greer@[redacted] on behalf of Greer, Graeme
Sent: 11 November 2014 15:46
To: Stacey McClatchie [Stacey.McClatchie@[redacted] Ken Hall [ken.hall@[redacted] McKechnie, Stewart [Stewart.McKechnie[redacted] Brendan.Rooney@[redacted] [Brendan.Rooney@[redacted] Brown, Maureen [Maureen.Brown@[redacted] Macrae, Colin [Colin.Macrae@[redacted] Halcrow, Fiona (Fiona.Halcrow@[redacted] [fiona.halcrow@[redacted] Stillie, David [David.Stillie@[redacted] Davidson, Stuart X (Stuart.X.Davidson@[redacted] [Stuart.X.Davidson@[redacted]
Subject: RE: Environmental Matrix NHSL Comments Feedback
Attachments: 111114 RDD Part 4 Enviro Matrix comments.docx

Dear all,

Notes attached from todays meeting,

Kind Regards
Graeme

-----Original Appointment-----
From: Stacey McClatchie [mailto:Stacey.McClatchie@[redacted]
Sent: 07 November 2014 14:17
To: Stacey McClatchie; Ken Hall; 'McKechnie, Stewart'; 'brendan.rooney@[redacted] Greer, Graeme; Brown, Maureen; Macrae, Colin; Halcrow, Fiona (Fiona.Halcrow@[redacted] Stillie, David; Davidson, Stuart X (Stuart.X.Davidson@[redacted]
Subject: Environmental Matrix NHSL Comments Feedback
When: 11 November 2014 14:00-16:00 (UTC) Dublin, Edinburgh, Lisbon, London.
Where: MacKinlay Room

When: 11 November 2014 14:00-16:00 (GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London.

Where: MacKinlay Room

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*~*

Mo,

Can you please forward to the necessary attendees from the NHS.

Thanks,

Stacey

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RHSC & DCN
At Little France

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Meeting: **Project Management Group Meeting**

Location: **Islay**

Date and time: **27th August 2014 @ 1230**

Subject: **Project Management**

Meeting Chair: **Sorrel Cosens**

Attendees:

Sorrel Cosens	NHSL	(SC)
Graeme Greer	NHSL	(GG)
Brian Currie	NHSL	(BC)
John Ballantyne	IHSL	(JB)
Liane Edwards	IHSL	(LE)
Panya Upama	IHSL	(PU)
Sean Ferm	IHSL	(SF)

Apologies:

Matthieu Dannoot	IHSL	(MD)
Richard Osborne	IHSL	(RO)
Paul Serkis	IHSL	(PS)
Kamil Kolodziejczyk	NHSL	(KK)
Maureen Brown	NHSL	(MB)
Wallace Weir	IHSL	(WW)

Distribution (over and above attendees):

Brian Saunders	IHSL	(BS)

Number	Action	Owner	Date
1.0 Matters Arising			
1.1	2.1 - It was confirmed that IHSL will be responsible for updating and presenting the Technical Schedules Tracker for the PMG.	LE	Weekly
1.2	2.2 - NHSL to review and respond to next iteration of RDS template.	GG	27/08/14
1.3	2.3 - RDD Schedule being populated by IHSL. Update to be provided at next PMG.	LE	03/09/14
1.4	2.4 - Schedule of derogations by IHSL to be issued by 05/09/14.	LE	05/09/14
	2.4 - Schedule of derogations workshop to be organised on 08/09/14.	SC	29/08/14
1.5	2.5 - JB advised that PCP 4.27, Community Engagement Strategy was discussed on 26th August 2014 and it has been agreed this can be removed from the list of PCPs. IHSL to update the method statement with previous PCP feedback.	LE	03/09/14
1.6	2.7 – Board to provide delta view of updated corporate policies where possible.	SC	03/09/14
1.7	2.8 – Title of Revision D/E of the BCRS is still not resolved. Once clarified, Board to issue as a Transmittal to IHSL, including legal advisers.	GG/LE	27/08/14
2.0 Technical Schedule Tracker			

2.1	TS and PCP trackers reviewed line by line with status and commentary to be updated by IHSL.	LE	03/09/14
2.2	Board to issue Rev E of BCRs as a Transmittal to IHSL, including legal advisers.	RW	29/08/14
2.3	Meetings to review 4.3 Construction Methodology and 4.16 Commissioning arranged and further meetings requested to review the following: 4.5 Interior Design and Wayfinding & 4.6 Art Strategy (combined); 4.13 Acoustic Strategy; 4.26 Helipad Strategy; and 4.32 Schedule of Derogations.	SC	29/08/14
2.4	Legals to be advised to include both the RDD and Table of Finishes in their gaps list.	WW	29/08/14
2.5	Board cannot find documents for 4.16 Commissioning and 4.23 Specifications (Civil & Structural) on Aconex. LE to investigate.	LE	03/09/14
2.6	JB confirmed that Schedule Part 7 (Programme) will be updated with the revised dates, to be discussed at high level at Construction methodology workstream on 28/08/14.	JB	28/08/14
2.7	Schedule Part 13 (Independent tester) progress update requested.	WW	03/09/14
2.8	LE advised that during a review of the Environmental Matrix a number of discrepancies have been uncovered impacting on RDS production and requested input from NHSL. IHSL to raise RFI.	LE	03/09/14
2.9	Finalisation of paymech Gross Service Units relies on issue of SoA. IHSL to confirm expected timescale for this.	LE	03/09/14
2.10	FM – Schedules Part 12 and Part 16 – almost completed. IHSL to issue final version as Transmittal including legals when workstream satisfied with them. Timescale to be confirmed next week.	PU	03/09/14
3.0 Work Streams			
3.1	Design Steering Group – 01/09/14 – Board will send LE design risks for IHSL to add to the agenda.	GG	28/08/14
4.0 Requests for Information			
4.1	Open RFIs reviewed line by line. All parties to close open RFIs that have been addressed /superseded by subsequent work.	MM / LE	03/09/14
	Future reports will be a single collated sheet of open requests only.	MB	03/09/14
4.2	RIE drawings at interface: IHSL to speak to SC about drawings currently available in the office.	JB	03/09/14
	Board to provide room details (ie name/type) for the area surrounding the interface to identify any areas of sensitivity.	BC	03/09/14
5.0 Programme			
5.1	Following Project Steering Board on 22/08/14 the programme has been updated and all parties should use Revision 8J.	-	-
6.0 Preparation for PDG Meeting			
6.1	PDG meeting notes from 18/08/14 to be issued prior.	JB	29/08/14
	PCPs to be included in the agenda for the 01/09/14 PDG.	JB	29/08/14
7.0 Schedule 31, Interface			
7.1	BC advised on key points from 27/08/14interface meeting: 1. IHSL to present proposals on the Boundary Wall to South and External Lighting Design to Public Realm	JB	03/09/14
	2. First Floor Link Meeting – IHSL to propose date for meeting	JB	29/08/14
8.0 AOB			
8.1	Petrol Station interpretive report to be issued early w/c 01/09/14.	IHSL	03/09/14
8.2	It was reiterated that the correct lines of communications need to be followed at all times with neither party's subcontractors to contact the other party direct. All communication to go through NHSL/IHSL.	ALL	-
8.3	IHSL to provide proposal for issue and collation of documents for FC. This item to be added to the agenda for next week's PMG meeting.	WW	03/09/14

From: Liane Edwards-Scott [Liane.Edwards-Scott@[redacted]on behalf of Liane Edwards-Scott
Sent: 10 September 2014 11:08
To: graeme.greer@[redacted] [graeme.greer@[redacted]
Cc: John Ballantyne [John.Ballantyne@[redacted]
Subject: RHSC+DCN : RDS For FC
Attachments: Key & Generic Rooms.pdf

Graeme

Please see attached list of rooms for which RDSs will be provided for FC.
During RDD (post RDD) all room types will be generated as an RDS, culminating in an RDS attributable to each room.
C-sheets will be provided for the room list attached too ; and as discussed/agreed these will be listed in the RDD Schedule.

Regards
LE

Liane Edwards-Scott ARB
Design Manager

Brookfield Multiplex Construction Europe
RHSC & DCN Project Office
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EDINBURGH
EH10 4SG

m: [redacted]
e: liane.edwards@[redacted]
w: www.brookfieldmultiplex.com

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Room Code	Description	Room_Number
B0305	Single-bed room DCN	2-L2-130
B0305-01	Single-bed room RHSC	G-A2-052
B0308	Single-bed room: isolation RHSC	G-A2-072
B0308-01	Single-bed room: Isolation DCN	2-L2-135
B0405	Multi-bed room: 4 beds RHSC	G-A2-054
B0510-01	Single-bed room (CAMHS)	G-F1-073
B0705	Sleep Room	3-C4-008
B1401	Single-bed cubicle	1-B1-037
B1401-01	Single-bed cubicle: Isolation	1-B1-036
B1407-01	Open Plan Bay 3 cots: Neonatal	1-B1-065
B1411	Receiving/Resuscitation	1-L1-005
B1421	Single cot cubicle: neonatal	1-B1-075
B1609-01	4 beds Low Acuity	1-B1-031
B1609-02	4 beds High Acuity	1-B1-063
B2417	Post Anaesthetic Recovery:RHSC	1-P1-029
B2417-01	Post Anaesthetic Recovery:DCN	1-P1-109
B2418	Post Anaesthetic Recovery Room: RHSC	1-P1-030
B2517	SDCU Recovery	1-P1-024
C0110-01	Distraction Free Treatment: SALT	1-D6-035
C0217	Consult/exam: multidisciplinary - DCN	G-M1-012
C0217-01	Consult/exam: multidisciplinary - RHSC	G-D1-040
C0224	Consulting/examination: DCN	G-M1-018
C0224-01	Consulting/examination: RHSC	G-D1-039
C0230	Consulting/examination room: Orthoptic	1-D3-007
C0515	Testing/Clinic room	1-D4-007
C0516	Observation/Control room	1-D4-006
C0517	ABR Room	1-D4-002
C0712	Treatment room: Echocardiography	G-D2-006
C0715	Cardio Pulmonary Exercise Lab	G-D2-005
C0718-01	Excercise Tolerance Test Room	G-D2-014
C0718-02	Lung Function Laboratory	G-D2-013
C0903-01	Dental Surgery Standard	G-D5-008
D0608-02	Dining / Recreation (Day Prog)	G-F1-036
D1135	Discharge Lounge	1-P1-012
D2155	Admissions Lounge	1-P1-128
E0113	Doppler Ultrasound	G-Q1-081
E0115	Ultrasound Treatment Room	G-Q1-010
E0128	Imaging Room: General X-ray	G-Q1-004
E0135	Dental room	G-Q1-141
E0311	Angiography Procedures Room	1-P1-093
E0601	CT Room DCN	G-Q1-059
E0601-01	CT Room RHSC	G-Q1-136
E0604-01	Control room: CT/MRI RHSC	G-Q1-135
E0604-02	Control room: CT DCN	G-Q1-071
E0604-03	Control room: MRI DCN	G-Q1-111
E0604-04	Control room: Gamma Camera	G-Q1-042
E0604-05	Control room: Interoperative MRI	G-P1-065
E0604-06	Control / Observation room	3-C4-007
E0715	Injection Room: DCN MRI	G-Q1-108
E0716	Imaging Room: Gamma Camera	G-Q1-039
E0801	Imaging room: MRI DCN	G-Q1-123
E0801-01	Imaging Room: MRI RHSC	G-Q1-134
E0801-02	Imaging room: Interoperative MRI	1-P1-064
G0180-01	Resusitation trolley	G-A2-016
G0180-03	Hoist Bay	G-A2-027

Room Code	Description	Room_Number
G0180-06	Parking bay: mobile equipment	1-P1-097
G0510	Lobby: Isolation RHSC	G-A2-074
G0510-01	Gowning Lobby: Isolation Room	1-B1-033
G0510-02	Lobby: Isolation Room DCN	2-L2-134
H0202-01	Workshop / Tutorial Room	3-H3-001
H1107	Group room	G-F1-020
H1313-01	Meeting room: 4 person	G-Q1-054
H1313-02	Meeting room: 6 person	G-Q1-055
J0132-01	Reception: 2 person	G-E1-002
J0132-02	Sub Wait With Nurse Base	G-E1-003
J0132-03	Multi Functional Activity Zone	G-E1-001
J0232-01	Reception: 1 person	2-L2-073
J1155	Waiting	1-L1-027
J1255	Main Waiting: RHSC	G-E1-011
J1264	Waiting bay: 1 patient trolley/bed place	1-P1-057
L0102-01	Molecular Biology Laboratory	4-H1-018
L0102-02	Physiology Laboratory	4-H1-027
L0102-03	Tissue Culture Store	4-H1-016
M0132-01	Open Plan Office	2-R1-055
M0251	Office: Ward Management	G-A2-078
M0251-01	Office: 1:1	1-P1-085
M0254	Multi disciplinary office	G-A2-077
M0724	Interview room	G-A2-083
N0106-01	Operating theatre: RHSC General	1-P1-131
N0106-02	Operating theatre: Intraoperative	1-P1-155
N0106-03	Operating theatre: DCN General	1-P1-070
N0305	Anaesthetic room: RHSC	1-P1-132
N0305-01	Anaesthetic room: DCN	1-P1-069
P0627	Pantry	G-F1-057
Q0120	Activities of daily living: kitchen	2-M2-009
Q0121	Therapeutic kitchen	G-F1-037
S0027-01	Viewing Room	1-J1-003
T0101	Clean Utility: Inpatients RHSC	3-C1.1-042
T0151	Touchdown Base	G-A2-049
T0152	Staff Base	G-A2-008
T0526	Preparation room	1-P1-134
V0726	Changing Room	1-P1-127
V0922	WC: Accessible	G-M1-005
V1010	WC: ambulant	G-A2-024
V1610	Shower room: en-suite: anti ligature	G-F1-074
V1643	Shower room: en-suite DCN	2-L2-131
V1643-01	Shower room: en-suite: RHSCAlso used with isolation ensuites	G-A2-051
V1736	Assisted Bath WC	G-A2-076
W1594-01	Linen Bay	G-A2-063
X0105	Treatment room	G-M1-014
X0105-01	Treatment room: with Prep Area	G-D1-033
X0105-02	Treatment room: with Prep Area	2-M2-011
X0111	Treatment Area	2-M3-003
X0125	EEG Recording room	2-M4-019
X0136	EMG/Nerve Conduction Room	2-M4-008
X0145	Treatment room: Inpatient	3-C1.1-043
X0206	Plaster Suite	G-D1-008
X0208	Rehabilitation Room:OT	1-D6-048
X0208-01	Rehabilitation Room: Physio	1-D6-053
X0208-02	Rehabilitation Room: Physio (CV Equip)	1-D6-054

Room Code	Description	Room_Number
X0242	Dressings Room	1-D7-003
X0242-01	Treatment: double sided couch access (ED only)	G-A1-020
X0242-02	Treatment: Single sided couch access (ED only)	G-A1-060
X0242-03	Triage room	G-A1-035
X0242-04	Treatment: double-sided couch access (Mental Health)	G-A1-015
X0242-05	Resuscitation Room: 2 places	G-A1-028
X0242-06	Resuscitation Room: 2 places	G-A1-029
X0318	Multi Purpose Rehabilitation Room	2-M2-023
X0613	Therapy room	G-F1-034
X1026	Control room: Angiography Procedures	1-P1-094
X1504	Patient Treatment Lounge	3-D9-016
Y0431	Dirty utility	G-A2-022
Y0646	Disposal hold	G-A2-082
Y0646-01	Disposal hold (General Waste)	2-R1-022
Y1510	DSR	G-M1-050

From: Greer, Graeme <graeme.greer@[redacted]
Sent: 13 September 2014 12:18
To: Liane Edwards-Scott
Cc: John Ballantyne; Cosens, Sorrel (Sorrel.Cosens@[redacted]
Subject: RE: RHSC+DCN : RDS For FC
Attachments: image001.jpg; IHSL RDS proposal comments120914.xls

Liane,

Further to your email below, please refer to the attached spreadsheet with comments from the Board.

Can we add this to our meeting on Tuesday?

Kind Regards
Graeme

From: Liane Edwards-Scott [mailto:Liane.Edwards@[redacted]
Sent: 10 September 2014 11:08
To: Greer, Graeme
Cc: John Ballantyne
Subject: RHSC+DCN : RDS For FC

Graeme

Please see attached list of rooms for which RDSs will be provided for FC.
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C-sheets will be provided for the room list attached too ; and as discussed/agreed these will be listed in the RDD Schedule.

Regards
LE

Liane Edwards-Scott ARB
Design Manager

Brookfield Multiplex Construction Europe
RHSC & DCN Project Office
56 Canaan Lane
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RHSC		IHSL Proposed RDS	NHSL Suggested Additions
A1	Emergency Dept	Treatment Room double sided couch access	
		Treatment Room single sided couch access	
		Triage Room	
		Mental Health Treatment Room	
		Resus Room (028)	
		Resus Room (029)	
A2	PARU	Single Bedroom	Dining Play (040)
		Single Isolation Bedroom	Ward Kitchen (041)
		4 bedded multi-bay	
		Resuscitation Bay	
		Hoist Bay	
		Isolation Lobby	
		Ward Manager Office	
		MDT Office	
		Interview Room	
		Touchdown Base	
		Staff Base	
		WC Ambulant	
		En-suite shower room	
		Assisted Bath	
		Linen Bay	
		Dirty Utility	
		Disposal Hold	
A3	PARU/Emer/Rad Shared Support		Seminar Room (002)
B1	PICU & HDU	Single Bedroom	Equipment Service Room (007)
		Single Isolation Bedroom	Staff Base (012)
		Open Plan Bay 3 cots	
		Single Cot Neonatal	
		4 bed low acuity	
		4 bed high acuity	
		Gowning Isolation Lobby	
RHSC Inpatients & Support			
C1.1	Medical Inpatients	Clean Utility	
		Treatment Room	
C1.2	Surgical Long Stay		
C1.3	Neurosciences		
C1.4	Haematology & Oncology		Multi-Bed (061)
			Treatment/Clean Utility (038)
C1.5	Med/Surg/Onc/Neuro Shared Support		
C1.6	Adolscent Shared Facilities		
C1.7	Neurophysiology		Evoked Potential Recording Room (005)
C1.8	Surgical Short Stay		
C2	RHSC Ward Support		
C3	Special Feeds Unit		
C4	Sleep Lab	Sleep Room	
		Control/Observation Room	
C5	Classrooms		
RHSC Ambulatory Care			
D1	RHSC General OPD	MDT Consult/Exam	Orthotics Workshop (010)

		Consult/Exam	
		Treatment Room	
		Plaster Suite	
D2	Respiratory & Cardiology	Echocardio Treatment Room	
		Cardio Pulmonary Exercise	
		Excersie Tolerance Test Room	
		Lung Function Laboratory	
D3	Orthoptics	Consult/Exam	
D4	Audiology	Testing Clinic Room	
		ABR Room	
D5	Dental	Dental Surgery Standard	
D6	Therapies	Distraction Free Treatment Room	Equipment Decontamination (019)
		OT Rehab Room	
		Physio Rehab Room	
		Physio Rehab Room (CV)	
D7	PDC	Dressing Room	
D8	Social Work		
D9	Medical Day Case Unit	Patient Treatment Lounge	
D10	Ambulatory Care Shared Support		
E1	Pod	Reception 2 person	
		Sub Wait with Nurse Base	
		Multi-finctional Activity Zone	
		Main Waiting	
	Radio Lolliop		
F1	CAMHS	Single bedroom	
		Dining Recreation	
		Forteviot Group Room	
		Pantry	
		Therapeutic Kitchen	
		En-suite shower room (anti-ligature)	
		Therapy Play	
G2	Equipment Library		
G3	On Call		
H1	Child Life & Health	Molecular Biology Lab	
		Physiology Lab	
		Tissue Culture	
H2	Clinical Research Facility		Single Bed (gene therapy) (021)
H3	SPHERE	Workshop Tutorial Room	
I1	RHSC Main Entrance		
I2	Toy & Bed Store		
J1	Bereavement Suite	Body Viewing Room	
J2	Spiritual Care		
K1	Family Support		
K2	Family Hotel		
U1	Specialist Biochemistry Lab		Main Lab (001)
DCN Departments			
L1	DCN Acute Care	Intensive Treatment Room	4 bedeed bay (100)
		Patient Waiting Assessment	Touchdown base (089)
L2	DCN Inpatients	Single Bedroom	

		Single Isolation Bedroom	
		Isolation Lobby	
		Reception 1 person	
		En-suite shower room	
M1	OPD	MDT Consult/Exam	
		Consult/Exam	
		WC Accessible	
		Treatment Room	
		DSR	
M2	Therapies	ADL Kitchen	
		Distraction Free Treatment Room	
		Multi-Purpose Rehab Room	
M3	PIU	Treatment Area	
M4	Neurophysiology	EEG Recording Room	
		EMG/Nerve Conduction Room	
N1	DCN Main Entrance		
N2	DCN Shared Support		Staff Room (002)
Co-Joined Departments			
P1	RHSC & DCN Theatres & RHSC	Post Anaesthetic Recovery RHSC	
	SDCU	Post Anaesthetic Recovery DCN	
		Post Anaesthetic Recovery Room RHSC	
		SDCU Recovery	
		SDCU Discharge Lounge	
		DCN Admissions Lounge	
		Angio Procedures Room	
		Control Room Intra-operative MRI	
		Intra-operative MRI	
		Parking Bay - mobile equipment	
		Trolley Waiting Bay	
		1:1 Office	
		Operating Theatre RHSC General	
		Operating Theatre Intraoperative	
		Operating Theatre DCN	
		Anaesthetic Room RHSC	
		Anaesthetic Room DCN	
		Preperation Room (RHSC 3)	
		DCN Changing Cubicle	
		Angio Control Procedure Room	
Q1	RHSC & DCN Radiology	Doppler Ultrasound	
		Ultrasound Treatment Room	
		General X-Ray Room	
		Dental Room	
		CT Room DCN	
		CT Room RHSC	
		Control Room CT/MRI RHSC	
		Cotrol Room CT DCN	
		Control Room MRI DCN	
		Control Room Gamma Camera	
		Injection Room DCN MRI	
		Imaging Room Gamma Camera	
		MRI Imaging Room DCN	
		MRI Imaging Room RHSC	

		Meeting Room - 4 person	
		Meeting Room - 6 person	
R1	Clinical Management Suite	Open Plan Office (055)	
		Disposal Hold (General Waste)	
R2	Health Records		
Facilities Management & Infrastructure			
S1	Kitchen		Prep/Cooking Area (001)
S3	Domestic Services		Clean Linen (002)
S4	Materials Management		
S5	Central Staff Changing		
S6	Estates		
S7	Restaurant		Restaurant (010)
S8	Sterile Supplies Store		

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Design Steering Group
Action Tracker

Issue Date **24.09.14**
Issued By **L E Scott**

ITEM	ACTION	DATE RAISED	CURRENT ACTIVITY	ACTION WITH	DATE CLOSED
01	Town Planning - current conditions schedule up to date and circulated on Aconex. Board to be issued formally.	02/09/2014	Final wording being agreed for all conditions, issue to Board imminent.	IHSL/BMCE	
02	OF/FC/RDD - stamps wording to be agreed for return of all drawings	16/05/2014	Stamp wordings agreed, stamps delivery awaited.	CLOSED	19/09/2014
03	OF/FC/RDD - drawing lists to be progressed and issued.	02/09/2014	All in progress, all issued in draft to NHSL except RDD, due w/e 26/09/14.	IHSL/BMCE	
04	Environmental Data Matrix - issues with room type allocations noted.	02/09/2014	IHSL reviewed, revised PCP 4.9 reviewed.	CLOSED	19/09/2014
05	RDS - content and numbers still to be agreed. IHSL confirmed an RDS will apply to each room and will be provided during RDD as agreed.	27/06/2014	Content agreed, list issued, RDS issued for review.	CLOSED	19/09/2014
06	Board reviewed all 1:50 loaded plans and noted 23 departments with no comments, 33 depts with minor and major comments.4 depts not yet reviewed. Board/IHSL to review comments.	02/09/2014	Meeting took place 08/09/14 to discuss all comments. None required drawing updates as none were affecting Operational Funcitionality.	CLOSED	08/09/2014
07	Samples Schedule - requires to be populated further.	02/09/2014	To be populated further when sub cts appointed.	IHSL/BMCE	
08	Derogations Schedule - meeting planned 12.09.14 to review first drafts.	02/09/2014	Meeting took place ; comments received, BMCE have issued via aconex for next level of review by Board.	NHSL	
09	Secure by Design - progress required.	02/09/2014	IHSL are reviewing current situation, contact received from B Currie	IHSL/BMCE	
10	RFI reports to be reviewed in PMG meeting.	02/09/2014	Reports now reviewed weekly.	CLOSED	02/09/2014
11	Theatre windows to be issued to Board for consideration.	02/09/2014	Issued, and instruction received from NHSL	CLOSED	19/09/2014
12	DCN Courtyards - design options to be issued to the Board for consideration.	02/09/2014	Issued, instruction awaited from the Board.	NHSL	
	SPECIFIC DESIGN MATTERS				
13	**Anti Ligature** - IHSL to ensure mental health room in A1 has plasterboard ceiling.	02/09/2014	Drawing is already submitted to Board, comment to be made on drawing.	NHSL	
14	**Anti Ligature** - Board to consider reduction in scope of anti- lig windows to whole hospital.	24/09/2014	IHSL to make proposal for consideration.	IHSL	
15	**Communication spaces / street widths** - derogation sought for street width reduction at resting places. Reviewed in meeting 24/09/14	02/09/2014	Board to review interior finishes drawings submitted and markup for further discussion with IHSL	NHSL	
16	**Downstand beams / service runs** - NHSL to return comments on the downstand beams.	02/09/2014	All reviewed, NHSL accepted the proposal. Derogation to be signed off.	CLOSED	24/09/2014
17	**CHP optimisation** - NHSL to return comments on paper issued under PCP 4.10.	02/09/2014	Board to issue final comments on PCP	NHSL	
18	**Lifts** - NHSL to return comments - revised PCP issued. Possible issues surrounding FM lift sizes. Discussed at length in meeting.	02/09/2014	Comments received by Board. IHSL to confirm compliance in writing. NHSL to consider instruction required as necessary.	IHSL NHSL	
19	**Acoustics** - issue to be resolved regarding reverberation time to the atrium. Discussion ended at 2.0 seconds at 1:1 communication spaces, and maximum upper limit of 2.75 seconds. Target 2.5 seconds.	02/09/2014	ACL to redraft minor comments throughout and resubmit PCP. NHSL to consider RT's again and escalate to Project Delivery Group if necessary.	IHSL/ACL NSHL	

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Design Steering Group
Action Tracker

Issue Date **24.09.14**
Issued By **L E Scott**

ITEM	ACTION	DATE RAISED	CURRENT ACTIVITY	ACTION WITH	DATE CLOSED
20	**Access for Replacement** - NHSL asked who is responsible for building 'unzip'. Motts confirmed that it is normal for the equipment supplier to provide appropriate platform.	24/09/2014	Post meeting note: BYES confirmed that all works, including the building works form part of the turn key project by the equipment supplier. BYES carry out delapidation survey pre and post and the works are guaranteed by the supplier.	CLOSED	25/09/2014
21	**ETFE** - NHSL indicated request to install rain suppressant - IHSL noted concerns which Board should consider. Agreed further discussion required.	24/09/2014	IHSL/BM to set up meeting to discuss detail further.	IHSL/BMCE	
22	**Equipment List -** NHSL indicated a number of comments on equipment list.	24/09/2014	NHSL to issue comments for IHSL review.	NSHL	
23	**Environmental Data Matrix** - NSHL intidcated some minro comments.	24/09/2014	NHSL to issue comments for IHSL review.	NSHL	
24	**MRI Chillers** - proposed locations issued to NHSL.	24/09/2014	NHSL to review and comment via workstream. Item closed in this forum.	CLOSED	25/09/2014
25	**Gauss Lines** - NHSL to provide comment.	Jun-14	NSHL to provide comment.	NSHL	
26	**Radiation Protection -** comments received from NHSL.		IHSL to review. Item closed in this forum.	CLOSED	25/09/2014
	POST FC DESIGN MATTERS				
27	**Canopies** - Board indicated intention to instruct combined canopy to ED/RIE post FC.	24/09/2014	Post Meeting Note : IHSL note that this area forms part of early works programme and request further briefing information now such that the impact can be assessed to avoid any potential delay to early phase works	NHSL	

RHSC & DCN
At Little France

CONFIDENTIAL

Meeting: **Project Management Group Meeting**

Location: **Islay**

Date and time: **1st October, 12.30**

Subject: **Project Management**

Meeting Chair: **Wallace Weir**

Attendees:

Graeme Greer	NHSL	(GG)
Maureen Brown	NHSL	(MB)
Kamil Kolodziejczyk	NHSL	(KK)
Wallace Weir	IHSL	(WW)
Liane Edwards	IHSL	(LE)
Sean Ferm	IHSL	(SF)
Paul Serkis	IHSL	(PS)
Matthieu Dannoot	IHSL	(MD)

Apologies:

Brian Currie	NHSL	(BC)
Sorrel Cosens	NHSL	(SC)
John Ballantyne	IHSL	(JB)
Panya Upama	IHSL	(PU)

Distribution (over and above attendees):

Richard Osborne	IHSL	(RO)
Brian Saunders	IHSL	(BS)

Number	Action	Owner	Date
1.0 Matters Arising			
1.1	1.2 Paymech Gross Service Units being updated by S Alderson, MM	GG	03/10/14
1.2	1.4 Proposed meeting schedule post-FC requested of IHSL for the next PMG.	PS	08/10/14
1.3	1.5 Board to respond on IHSL proposal that the Board review period under Sch Part 8 (review procedure) for RDD re-submissions should be amended from 15 to 10 business days. Primary submissions to remain at 15 business days.	Legal	-
2.0 Technical Schedule Tracker			
2.1	TS and PCP trackers reviewed line by line with status and commentary to be updated by IHSL.	PS / LE	07/10/14

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Number	Action	Owner	Date
2.2	Sch Part 6, Section 3 – BCR's sub-sections D&E to be re-issued by Board. Where agreed these will incorporate correction of drafting errors note on BMCE derogations list. Review of RDS by Janice Mackenzie to be included. (NB only anticipated change to sub-sections A-C is in relation to bus stop appendix).	GG	06/10/14
2.3	Sch Part 6, Section 4 Outstanding PCP's to be issued by BMCE: • 4.03 Construction Methodology, subject to petrol station detail • 4.15 Vertical Transportation • Drawings being issued for the Board with the following deadlines o Civils and structural o M&E Board to conduct high level review of PCP / drawing submissions to ascertain if they will be able to confirm no further "material changes" required. Comments to IHSL. NHSL confirmed intention to review all issues and identify any material issues by Monday 06/10/14 in preparation for a meeting with IHSL on 07/10/14. Attendees at the meeting on 07/10/14 are SF,JB,BC and GG. GG to arrange the meeting. (Meeting to include any items subject to BCR interpretation and / or derogation).	 LE LE LE LE BC/GG GG	 06/10/14 02/10/14 03/10/14 03/10/14 03/10/14 02/10/14
2.4	Sch Part 6 Section 5 – Board to respond to revised RDD list. Joint review by LE/GG.	GG/LE	07/10/14
2.5	Sch Part 6 Section 8 – Quality Plans to exist in either PCP 4.20 or Section 8 with cross reference to other. No need to exist in both.	Note	-
2.6	Sch Part 7 - Construction Programme to be updated and issued by IHSL. Update to be provided at next meeting.	PS	08/10/14
2.7	Sch Part 8 – IHSL to review the Table of Finishes in the Review Procedure relative to the RDD samples list.	LE/GG	08/10/14
2.8	Sch Part 10 – Commissioning PCP 4.16 includes outline commissioning programme. Comments to PS in this respect. PS to ensure Jackie Sansbury is aware of how it is intended this is developed into final commissioning programme.	All / PS	08/10/14
2.9	Sch Part 11 – Board to return comments on Equipment Lists to IHSL and discussion required on generation of Equipment Responsibility Matrix (format to be clarified including detail from ISFT). It is understood circa 150 comments to be received. There is a concern the comments may constitute material change. MacRoberts to issue proposal for Board input to specific equipment.	GG/LE GG	03/10/14 Update 08/10/14
2.10	Sch Part 12 Section 1 – SLS update for format changes only to be issued by the Board.	GG	03/10/14

Number	Action	Owner	Date
2.11	Sch Part 12 Sections 2 and 3 – final version reviewed by Burness issued to Board last week. Board to confirm agreed.	GG	01/10/14
2.12	Sch Part 13 – Independent Tester preferred bidder (ECH) to confirm acceptance so other bidders can be de-briefed.	BS	03/10/14
2.13	Sch Part 16 – Board to advise any issues arising from IHSL schedules of rates. NB small changes drafting to be reviewed by legals.	GG PU	03/10/14 03/10/14
2.14	Sch Part 28 – Updated Board Policy Documents to be reviewed by IHSL. IHSL to provide comments.	LE/PS/ MD	03/10/14
2.15	Sch Part 29 – Planning Conditions wording to be revised by MacRoberts as required on the basis of the wording in the actual notices of decisions and issued to IHSL. Expected with next revision of PA.	BC	03/10/14
3.0 Work Streams			
3.1	High level design issues raised in Design Steering Group 24/09/14 including corridors, lifts, anti-ligature, down stand beams & atrium noise. Some agreement and discussions continue. Target resolution to coincide with no material change target (06/10/14).	LE	06/10/14
3.2	Meeting held 23/09/14 regarding Petrol Station ground contamination / provisional sum. IHSL to consider discussed revisions to interpretative report / council submission. PS to provide an update.	PS	03/10/14
4.0 Requests for Information			
4.1	Open RFI worksheet to be updated and circulated.	MB	07/10/14
5.0 Programme			
5.1	Revision 09a in circulation.	Note	-
6.0 Preparation for PDG Meeting			
6.1	Nil	-	-
7.0 Schedule 31, Interface			
7.1	IHSL / Board comments on Consort clarifications issued with close out targeted for 03/10/14. Meeting with Consort on 03/10/14.	All	03/10/14
8.0 FC Document Collation			
8.1	Previously confirmed separate Aconex site to be set up by BMCE for final agreed document collection before issue to lawyers for close.	JB	TBA
9.0 AOB			
9.1	HAI Scribe – It is noted there is a requirement to progress HAI Scribe. A kick off meeting to be arranged soon after design freeze. Attendance to include NHSL, construction and FM.	All	TBA

From: Maureen Brown [auto-reply-lhr@[redacted] on behalf of Maureen Brown
Sent: 27 January 2015 09:20
To: Liane Edwards-Scott
Subject: MM-GC-000429: Re: RE: Room Data Sheeets For Financial Close
ACNXREF<yv3g7sOnXb4RgZJLhIJJSB>

You have received a new **General Correspondence: MM-GC-000429**

Project: RHSC & DCN (PB)
Type: General Correspondence
Mail Number: MM-GC-000429
To: **Liane Edwards-Scott, Brookfield Multiplex Construction Europe**
Mr Sean Ferm, Macquarie Capital Group Limited
Mrs Lynn Pentland, MacRoberts LLP
Graeme Greer, Mott MacDonald Ltd (Head Office UK)
Sorrel Cosens, NHS Lothian
Ms Emma Fern, NHS Lothian
From: M Brown, Mott MacDonald Ltd (Head Office UK)
Sent: 27/01/2015 9:20:18 AM GMT (GMT +00:00)
Attribute 1: Stage 2 - Preferred Bid
Attribute 2: 30. Architectural
Status: N/A
Subject: **Re: RE: Room Data Sheeets For Financial Close**

Hi Liane,

As the RDS are incomplete, the Board has not stamped the drawings.

In accordance with the requirements in Section 5 (Reviewable Design Data) of Schedule Part 6 (Construction Requirements) Appendix B (Completion Criteria) of Schedule Part 10 (Outline Commissioning Programme), Project Co has to submit to the Board through the Review Procedure completed Room Data Sheets for all Rooms whilst taking into account Section 3 of Schedule Part 6 of the Boards Construction Requirements.

Kind regards,

Mo

From: L Edwards-Scott
Sent: 22/01/2015 5:46:46 PM GMT (GMT +00:00)
To: Sean Ferm, Lynn Pentland, Maureen Brown, Graeme Greer, Sorrel Cosens, Emma Fern
Mail Number: BMCE-TRANSMIT-001327
Subject: Fwd: RE: Room Data Sheeets For Financial Close

All

I cannot find receipt of these having been stamped?
Please otherwise confirm that they can be uploaded to the FC Site.

Regards
Regards
LE

Liane Edwards-Scott *ARB*
Project Design Manager RHSC + DCN Edinburgh

From: B DocControl
Sent: 19/09/2014 3:36:42 PM BST (GMT +01:00)
To: Maureen Brown, Graeme Greer, Kamil Kolodziejczyk, NHSL RHSC + DCN
Cc: Liane Edwards-Scott, Ken Hall, Jim Murray, Robert Nethery
Mail Number: BMCE-TRANSMIT-000967
Subject: RE: Room Data Sheeets For Financial Close

Dear All,

Please see attached drawings for Financial Close issued for review. These drawings have to be returned to BMCE signed, dated and with a status. A hard copy will be issued to you shortly.

Should you have any queries do not hesitate to contact me.

Kind Regards

Anne

BM Edinburgh Document Control

RHSC and DCN
Little France
Edinburgh
Scotland

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RHSC & DCN
At Little France

CONFIDENTIAL

Meeting: PDG Meeting

Location: MacKinlay Room

Date and time: Monday 27th October 2014 – 1.30 – 3.30pm

Subject: Progress/update to Financial Close

Meeting Chair: Paul Serkis

Attendees:

Paul Serkis	IHSL	PS
Juan Custodio	IHSL	JC
Sean Ferm	IHSL	SF
Matthieu Dannoot	IHSL	MD (dial in)
Brian Currie	NHSL	BC
Iain Graham	NHSL	IG
Jackie Sansbury	NHSL	JS
Graeme Greer	NHSL	GG
Maureen Brown	NHSL	MB
Sorrel Cosens	NHSL	SC
Moira Pringle	NHSL	PS
Stuart Davidson	NHSL	SD

Apologies:

John Ballantyne	IHSL	JB
Janice MacKenzie	NHSL	JMc

Distribution (over and above attendees):

Andy Orr	IHSL	AO
Panya Upama	IHSL	PU

RHSC & DCN
At Little France

1.0 Review of previous minutes		Action	Target date
1.1	No minutes issued from last meeting.		
2.0 Updated programme to FC			
2.1	Review of Target FC programme		
2.1.1	Overall discussion held in regard to the target Financial Close date. The proposed date is now 12th December 2014.	All	
2.1.2	Target FC programme (Rev9) to be updated in line with discussions at the meeting and to be circulated by Thursday 30th prior to being tabled at the Project Steering Group meeting scheduled for Friday 31st October.	IHSL	
2.1.3	JC confirmed that appointment of EC Harris as independent tester is progressing. To confirm to Board when formally completed.	IHSL	
3.0 Documents list for FC (including PCP's/TST)			
3.1	**Technical Schedule Tracker** The Schedules are generally progressing well with all major items off the critical path. These are being monitored through the PMG weekly meetings.	PM Group	
3.2	**Project Co Proposals**		
3.2.1	Approximately 30% of PCP's have been forwarded to the LTA. PS updated the group on all PCP's with a status update for each. Key actions: PCP 4.8 - Civ & Struc: narrative to be updated following meeting held earlier in the morning and then re-issue to both Board and LTA. [PMN: PCP updated and will be issued 28/10/14. PMN by Board – PCP to be reviewed before issuing to LTA due to possible material change re basement waterproofing] PCP 4.16 – Commissioning: Board have provided commentary on PCP. IHSL to review and respond to Board. PCP 4.32 Schedule of Derogations: IHSL to include agreed wording and re-issue to Board and LTA	Note IHSL IHSL IHSL	 31/10/14 31/10/14 28/10/14
3.2.2	Target date for all PCP's to be sent to Board and LTA by close of business Wednesday 29th October latest in parallel.	IHSL	29/10/14
3.2.3	Cut-off date for any final tweaks (ie non material changes) to PCP's by 12th November.	IHSL/Board	12/11/14
4.0 Summary Feedback (by exception) from various workstreams with actions for PDG			
4.1	Project Management Group This group will continue to monitor the process and ensure technical documents ready for FC. Meeting on 29th October to consider which PCP's can be confirmed at that date as no further comment from the Board and which will be subject to non-material finalisation – per 3.2.3 above.	Note	
4.2	IT Group: Minor comments being collated and included in PCP 4.14 and shall be re-issued to the Board/LTA as above.	IHSL	29/10/14
4.3	Community Engagement: Partnership established, good progress being made and meetings/events being attended, held with positive feedback.	Note	
4.4	Legal & Insurance JC updated the group generally reporting good progress on legal documents. Insurance meeting scheduled for 29/10/14.	Note	

RHSC & DCN
At Little France

1.0 Review of previous minutes		Action	Target date
	1st draft Funding Agreement docs to go to lenders 29/10/14.		
4.5	Interface (Campus) Construction and logistics Schedule Part 31 progress very well advanced. Minor points being addressed with a target of completion by Fri 31/10/14. Table of comments being responded to with exception of those that unable to respond to until during the Works phase. Target to have completed where possible and confirmation issued back to IHSL by 04/11/14. BC advised Consort about to appoint MRI/Endoscopy works contractor.	IHSL/Board	04/11/14
4.6	M&E PCP 4.9 M&E being updated by IHSL with Board comments included and will be re-issued to the Board and LTA asap.	IHSL	28/10/14
4.7	Design Steering Group No further formal DSG meetings scheduled for this period prior to FC. Design issues being resolved through close out of PCP's.	Note	
4.8	Energy Strategy document (Schedule Part 12 Section 4) IHSL (BES) to respond with updated version.	IHSL	28/10/14
4.9	Commissioning PCP 4.16: The Board have commented on the draft PCP. IHSL to review and update.	IHSL	31/10/14
4.10	FM IHSL (BES) reviewing OPex and LCC following capex agreement last week (22/10/14). Feedback to be issued by COB 28/10/14	IHSL	28/10/14
4.11	Finance JC advised M&G are working/reading through the documents. JC will advise any comments that arise from reading.	IHSL	
5.0 AOB			
5.1	Review of Design and Technical issues list GG gave an update on what items remained outstanding on the issues list. It should be noted these are not material but nevertheless should be resolved prior to FC. Notable items discussed and actions:: • Updated building warrant schedule to be provided • Issue RDD response • IHSL RDD tracker to be appended to 4.1 Design Management PCP • Equipment list – v7 is latest; move to v8 to be considered • Anti-Ligature to be captured solely as a derogation and not as a PCP • Respond to bus stop queries and provide updated drawings • Respond to / update CGL report to share with CEC and insurers as well as LTA • Flue planning application – on CEC 5 Nov meeting agenda • GIR/GDR for main site to be produced by RGB • PCP's to be reviewed for update for Transfer Beam issues • Respond to environmental matrix • Agreement on anti-ligature windows may be dealt with through derogations GG to issue latest version of issues list.	IHSL/Board IHSL Board IHSL Board IHSL IHSL IHSL IHSL Note IHSL IHSL IHSL IHSL/Board	28/10/14
5.2	Programme		
5.2.1	Construction programme IHSL to issue latest version (pre change to FC target) of Construction programme to Board.	IHSL	29/10/14
5.2.2	Target programme to FC (see note 2.1 above)		
5.2.3	Design development programme This is in regard to arranging design meetings with Users post FC to ensure the construction programme is aligned with appropriate 6 week notice to Users.	IHSL	12/11/14
5.3	Capex The Capex was agreed at the meeting Wed 22/10/14.	IHSL	31/10/14

RHSC & DCN
At Little France

1.0 Review of previous minutes		Action	Target date
	Updated cost plan to be issued asap.		
5.4	Letters of Reliance IHSL to confirm how Project Co will deal with this. Registered name and address required.	IHSL	12/11/14
5.5	Service Yard Discussion held around the Service Yard and in particular 2 rooms allocated to the Board. Board requested a drawing which identifies the yard layout to 1:50 in order to confirm operational functionality. IHSL to consider. Need to confirm that these are in the SoA, therefore equipment list, strategy drawings and Paymech. Board to check if these are included in Schedule 14 (GSU) for Paymech purposes.	IHSL IHSL/Board	28/10/14 28/10/14
5.6	RDS and environmental matrix to be added to the Completion Criteria.	Board	
5.6	FC Drawings The Board requested hard copies of all drawings that will be included in the FC documents “Bible”. IHSL to consider and revert back.	IHSL	
5.7	Project Steering Group Meeting attendees: IHSL confirmed JC, SF and JB would be attending on 31/10/14	Note	

Scottish Hospitals Inquiry – Working draft documents issued on 10 June 2022
Multiplex Construction Europe Limited – Response
29 July 2022

1 Introduction

1.1 The following is a response by Multiplex Construction Europe Limited ("**Multiplex**") to the working draft documents issued by the Inquiry by e-mail dated 10 June 2022 (timed at 16:48) having the following titles:

1.1.1 Scottish Hospitals Inquiry – Research Paper. Comparison across versions of the Environmental Matrix in relation to SHTM 03-01 up to Financial Close (13 Feb 2015);

1.1.2 Narrative concerning the Reference Design of the Royal Hospital for Sick Children and Department for Clinical Neurosciences; and

1.1.3 List flagging gaps in paperwork and ambiguity surrounding final versions identified in the Reference Design paper.

1.2 In preparing this response, Multiplex has proceeded on the basis that the responses to the questions are only to address the period up to 13 February 2015 (being Financial Close), with the period after 13 February 2015 and evidence relating thereto to be addressed at a later stage in the work of the Inquiry.

1.3 As a general point Multiplex note its involvement in RHSC & DCN project first commenced in or around March 2013. Multiplex is therefore not able to assist the Inquiry in relation to the period prior to this.

2 Multiplex response to each of the questions 1 to 14 listed in 'Scottish Hospitals Inquiry – Research Paper. Comparison across versions of the Environmental Matrix in relation to SHTM 03-01 up to Financial Close (13 Feb 2015)'

2.1 "*1. Do you agree with the above? If not, please provide any corrections and/or clarifications.*"

2.1.1 In relation to the matters set out at paragraphs 1 to 10 generally, as a preliminary point Multiplex would respectfully direct the Inquiry to Multiplex's responses (dated 8 October and 5 November 2021) to the Inquiry's Request for Information Number 2, which responses address, *inter alia*, the EM. In particular, Multiplex would direct the Inquiry to paragraph 2.2 of the response and document nos. 2.7 (Critical Care) and 2.11 (Single Room).

2.1.2 Paragraph 1 – Multiplex was not involved in the development of the earlier versions of the EM. For the reasons set out in the above noted documents and explained further below, Multiplex respectfully submits that the reports prepared by KPMG and Grant Thornton are incorrect where they refer to there being 'errors' in the EM. Multiplex's understanding was that the EM represented NHSL's specific requirements for the RHSC & DCN project.

2.1.3 Paragraph 1 – "*In particular, it was identified that 4ACH had been specified in the EM for critical care and multi-bed rooms when - per the Board's Construction Requirements and Table A1 of SHTM 03-01 Part A - 6ACH should have been specified (for general wards) and 10ACH (for critical care areas).*" Multiplex would respectfully submit that this sentence is incorrect. The Board's Construction Requirements provide that:

"*8 Mechanical & Electrical Engineering Requirements*

Project Co shall provide the Works to comply with the Environmental Matrix."[1]

In addition, compliance with SHTM 03-01 was qualified in terms of the Project Agreement[2].

2.1.4 Paragraph 6 –"*Neither NHSL nor IHSL picked up on many of the discrepancies between what was stated in the EM and the SHTM until July 2019 when the IOM testing was carried out*". Multiplex would respectfully submit that this sentence is incorrect. NHSL and IHSL were aware that NHSL's requirements as set out in the EM departed from, *inter alia*, SHTM 03-01 prior to Financial Close. By way of clarification the Inquiry is directed to the following:

2.1.4.1 On 3 July 2014 Multiplex requested that Mott MacDonald provide to it a copy in native format of the EM which had been prepared by NHSL and which formed part of the ITPD[3]. A copy in native format of the EM was provided by Mott MacDonald to Multiplex on 11 July 2014[4].

2.1.4.2 On 29 September 2014 Multiplex issued to NHSL and Mott MacDonald a draft version of the EM[5] which had been prepared by Wallace Whittle and which EM complied with the EM provided to Multiplex referred to at paragraph 2.1.4.1 above[6].

2.1.4.3 On 14 October 2014 Mott MacDonald issued to Multiplex a copy of NHSL's initial technical comments[7] on the draft EM, an extract from which comments is shown below:

7. Bedrooms 4ac/hr, SHTM says 6 ac/hr
   Bedrooms have no extract
   Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr
   Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure
   The supply air to a bedroom has to be balanced with extract
   e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr
   En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr
   To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr

8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr

1 Page 104 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).
2 As explained in Multiplex's responses to the Inquiry's Request for Information Number 2.
3 E-mail dated 3 July 2014 (timed at 09:00).
4 Aconex mail number MM-GC-000126 dated 11 July 2014. Document with file name "*RHSC_DCN RDS Environmental Matrix- SoA 13_Issue*".
5 Aconex mail number BMCE-GC-001193 dated 29 September 2014. Document with file name "*RHSC_DCN RDS Environmental Matrix-140904*".
6 Volume 3, Schedule Part 6, Section 3, Appendix C to the ITPD. The EM was unchanged in the version incorporated as part of the IFST.
7 Aconex mail number MM-GC-000339 dated 14 October 2014. Document with file name "*141013 Environmental Matrix Comments*".

2.1.4.4 On 28 October 2014 Multiplex forwarded Wallace Whittle's response to the initial technical comments to Mott MacDonald, an extract from which response (Wallace Whittle's response being the right-hand column in the table) is copied below[8]:

7. Bedrooms 4ac/hr, SHTM says 6 ac/hr Bedrooms have no extract Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure The supply air to a bedroom has to be balanced with extract e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr	The scheme is based on the Reference design throughout which is essentially mixed mode with openable windows and 2/3rds mechanical supply air to all bedrooms. This gives physiological benefits with access to fresh air control by user and obvious Energy benefits. We have amended the environmental schedule to show the room being balanced which is provided by the opening window.
8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr	15 ac/hr utilised with the current design, matrix amended accordingly.

2.1.4.5 The matter of air change rates and pressure regimes set out in the EM departing from SHTM were therefore the subject of discussion by this date. The matter of air change rates having been settled, discussions which then followed related only to pressure regimes as set out below.

2.1.4.6 On 31 October 2014 Multiplex issued an updated version of the EM to Mott MacDonald[9].

2.1.4.7 A meeting with the subject 'Environmental Matrix NHSL Comments Feedback' was convened on 11 November 2014. The meeting was attended by representatives from Multiplex, Wallace Whittle, NHSL and Mott MacDonald. Notes of the meeting were prepared by Mott MacDonald and issued by e-mail on 11 November 2014[10], which notes are copied below:

"Project Co shall update the Environmental Matrix to reflect the following Board comments

- Update the Environmental Matrix shall by updated by Project Co to reflect all the rooms and room types in the proposed Facility, this should be based on an updated Schedule of Accommodation that has been commented on separately by the Board. This also needs to reflect the names and room numbers in the GSU table.
- Include the requirements contained in the Clinical Output Specification including but not limited to the requirement that theatre temperatures are to be able to be raised to 31°C for certain operations
- Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of the following room types to reduce the temperature control from 28°C to 25°C
  - Treatment Rooms;
  - Consulting Rooms;
  - Laboratory;
  - Physiotherapy Studio;
  - Recovery.

  These room shall not exceed the maximum acceptable level of 25°C for more than 50 hours per annum
- Detailed proposal awaited on bedroom ventilation to achieve balanced/negative pressure relative to corridor.
- Colour rendering all stated as 80 where certain areas should be 90
- There also need to have a consistent approach e.g. guidance notes and ED body view room stated as 28 -8, bereavement suite body view room stated as 25 -8.
- Further discussion is required on the minimum temperate requirement for the Body View Room.

8 Aconex mail number BMCE-GC-001410 dated 28 October 2014. Document with file name "*20141027 Environmental Matrix Comments*"

9 Aconex transmittal number BMCE-TRANSMIT-001192. Document with file name "*WW-XX-XX-DC-XXX-001*"

10 E-mail dated 11 November 2014.

Bullet point 4 above relates to the discussions concerning the pressure regime for single bedrooms.

2.1.4.8 On 19 November 2014 a Healthcare Associated Infection (HAI) – System for Controlling Risk in the Built Environment (SCRIBE) ("HAI-Scribe") meeting was held at which it was recorded:

2.2	Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems?	**Yes**		**No**	**x**	**N/A**	
		Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk/issue.					

2.1.4.9 On 13 January 2015 an MEP workshop meeting was held at which the issue of pressure regimes was discussed. This was originally planned as a HAI-Scribe Stage 3 review which was cancelled due to attendance, however ventilation was discussed by those who attended. A 'ventilation overview paper' was issued by Multiplex that day following the meeting[11].

2.1.4.10 On 19 January 2015 Multiplex issued a Request for Information[12] to Mott MacDonald in the following terms:

"*As per meeting of Tuesday 13.01.15 and our request for clarity on negative / positive pressure regime within the bedrooms, we attach the sketches distributed at the meeting and seek confirmation / acceptance from the NHS review with infection control.*"

2.1.4.11 On 29 January 2015 Mott MacDonald responded[13] to Multiplex's Request for Information in the following terms:

"*Following your recent RFI, the Board respond as follows:*

- *The single room with en-suite ventilation design shall comply with the parameters set out in SHTM 03-01.*
- *The design solution should not rely in any way with the opening windows as these will be opened or closed by patient choice.*
- *The critical factor from SHTM 03-01 for infection control will be the resultant pressure within the room being balanced with or negative to the corridor.*
- *Isolation room ventilation shall comply with SHPN 04 Supplement 1.*"

11 Aconex mail number BMCE-GC-001652 dated 13 January 2015.
12 BMCE-RFI-000077 - Bedroom Ventilation: HAI Scribe Confirmation.
13 E-mail dated 29 January 2015.

This was a variation / change to the mandated positive pressure requirement defined within the reference design EM to a balanced or negative pressure regime for the single bedrooms.

2.1.4.12 Following the above discussions, the EM was incorporated into the Project Agreement at Financial Close as part of the Room Data Sheets. The EM was defined as detailing "*the room environmental condition requirements of the Board within each department/unit/space/area*…." with Part 8 of the BCR's stating: *"Project Co shall provide the Works to comply with the Environmental Matrix."*[14]

2.1.4.13 NHSL's requirements as to, *inter alia*, air change rates and pressure regimes were subsequently confirmed post Financial Close during the RHSC & DCN project. By way of example, the EM was reviewed as part of the Schedule 8 Review Procedure, together with the wider associated ventilation design documents. Further, on 18 April 2018, as part of discussions in relation to the pressure regime in Multi-Bed Wards, NHSL expressly confirmed they *were "seeking design for 4 Air Changes to all 14 Rooms"*, four of these 14 rooms were located in Critical Care[15]. The associated design drawing was then issued through RDD on 21 June 2019 and given Status A by NHSL on 27 July 2018.[16]

2.1.5 Footnote 5 - "*The inquiry is unclear what "positive to ensuite" means in terms of the SHTM standards.*" Multiplex understands this term is used to determine the direction of airflow from clean to less clean i.e., air movement from the bedroom to the en-suite. This is to reduce contaminant and/or odour in the en-suite entering the bedroom.

2.1.6 Paragraph 10 – "*Instead all rooms in the hospital are categorised by their room function, irrespective of what department that room is situated in.*" Multiplex would note that in the body of the EM rooms are categorised by department.

2.1.7 Paragraph 14.2 - The change in pressure from positive to balanced was a result of NHSL's comments issued on 14 October 2014 and the response from Wallace Whittle on 28 October 2014 (referred to at paragraph 2.1.4 above).

2.2 "*2. Who produced or proposed changes to the Environmental Matrix at the following stages? 2.1. Before the switch to NPD 2.2. During the reference design stage 2.3. During Competitive Dialogue 2.4. After selection of the preferred bidder*"

2.2.1 Multiplex is unable to assist the Inquiry in relation to questions 2.1 and 2.2.

2.2.2 In relation to question 2.3 in the period from 11 March 2013 to 5 March 2014 the EM was under the control of Mott MacDonald and NHSL.

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14 Reference is made to Section 2 of Multiplex's 5 November 2021 Response to the Inquiry's Request for Information Number 2,

15 Aconex mail number NHSL-GC-002953 dated 18 April 2018.

16 WW-SZ-XX-DC-XXX-010 – REV 7.

2.2.3 In relation to question 2.4 in the period from 6 March 2014 to 13 February 2015, the EM was updated by Wallace Whittle in response to comments received from Mott MacDonald on behalf of NHSL and issued on 29 September 2014 and on 31 October 2014 before then being incorporated into the Project Agreement, reference is made to paragraph 2.1.4 above.

2.3 "*3. Who approved or confirmed acceptance of the Environmental Matrix and any changes made to it?*"

2.3.1 Multiplex is unable to assist the Inquiry in relation to the period prior to 11 March 2013.

2.3.2 In the period from 11 March 2013 to 5 March 2014 the EM was under the control of Mott MacDonald and NHSL.

2.3.3 In the period from 6 March 2014 to 13 February 2015 Multiplex issued the EM to Mott MacDonald for comment and acceptance on behalf of NHSL on 29 September 2014 and on 31 October 2014 before then being incorporated into the Project Agreement, reference is made to paragraph 2.1.4 above.

2.4 "*4. What was the purpose of the Environmental Matrix?*"

2.4.1 Multiplex understands that the purpose of the EM was to define NHSL's specific room environmental requirements. In this regard, Multiplex would direct the Inquiry to Section 2 of Multiplex's 5 November 2021 Response to the Inquiry's Request for Information Number 2, together with the following:

Bid submission requirement C8.3 of the ITPD stated:

"*Whilst bidders are required to undertake their own design, the Board has provided a draft Environmental Matrix as part of the ITPD documentation. Bidders must confirm acceptance of the Board's Environmental Matrix, highlighting any proposed changes on an exception basis*"

The BCRs within the ITPD and Project Agreement confirmed:

"*Environmental Matrix*

Means the Environmental Matrix, which ***details the room environmental condition requirements of the Board required within each department / unit / space / area****. The title is Reference Design Envisaged Solution – RHSC / DCN Environmental Matrix version third issue as set out in Appendix C of this Section 3 (Board's Construction Requirements) of Schedule Part 6*

(Construction Matters) (as varied, amended or supplemented from time to time in accordance with the Project Agreement);"[17] (emphasis added)

"*8 Mechanical & Electrical Engineering Requirements*

[17] Page 11 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).

Project Co shall provide the Works to comply with the Environmental Matrix."[18] (emphasis added)

"*The need to* ***maintain comfort conditions in accordance with the Room Data Sheets*** *in all areas but particularly in clinical areas is of paramount importance and Project Co shall develop strategies for achieving these conditions together with minimum energy consumption.*"[19] (emphasis added)

"*2.5.3 Room Data Sheets*

Standard format Room Data Sheets have not been prepared by the Board for the Project*.* ***The specific room requirements*** *(the "Room Information")* ***are detailed in*** *a combination of the following documents:*

- *The Board's Construction Requirements;*
- ***The Environmental Matrix****;*
- *The Schedule of Operational/Design Notes;*
- *The Equipment Schedule;*
- *The Equipment Responsibility Matrix;*
- *The Draft Schedule of Accommodation; and*
- *The Operational Functionality elements of the Reference Design.*"[20]

2.4.2 Item 1 of the Guidance Notes to the EM provided with the ITPD stated: "*This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets"*

2.4.3 Item 1 of the Guidance Notes to the EM incorporated in the Project Agreement, stated: "*This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets."*

2.4.4 Page 3 of the EM is then titled: "*Room Function Reference Sheet*" and states: "*The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions*". In relation to ventilation this table provides the type, supply air changes per hour ("ac/hr"), extract ac/hr, relative pressure, and minimum filtration required for each room type. This being then further expanded within the matrix by reference to each department, with paragraph 2.5 of the BCR's stating:

18 Page 104 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).
19 Page 120 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).
20 Page 200 of Hearing commencing 9 May 2022 - Bundle 3 - Governance Volume 3 (of 3).

"*…Where the Board has defined their preference specifically, Project Co shall adopt these preferences as a mandatory requirement. Where no Board preference is stated, Project Co shall engage the Board in the design development process to seek and incorporate the Board's preference within the Facilities*".

2.4.5 Paragraph 2.1.4 and 2.1.32 of Schedule Part 10, Appendix B - Completion Criteria of the Project Agreement, which stated:

2.1.4: "*All mechanical and electrical Plant and systems shall be tested, commissioned and operate satisfactorily in accordance with the specified design criteria, any manufacturers' operating requirements and the Room Data Sheets*"

2.1.32: "*Project Co shall provide Environmental Matrix including Commissioning data test sheets as commissioned in accordance with CIBSE Commissioning Code C and demonstrating compliance with the Environmental Matrix*"

2.4.6 The EM defined NHSL's specific environmental requirements for each space and IHSL were then to develop the building services engineering solutions to achieve these defined environmental requirements.

2.5 "*5. What are Schedule of Accommodation sheets, who produces them and what information did they contain?*"

2.5.1 Generally, a schedule of accommodation defines the minimum space requirements within a facility. The schedule is usually prepared by the client as a briefing document defining their needs. The schedule is likely to contain a room reference no, room name, room type, room area (m²) and arranged by department. As a project progresses the design team develops and expands the schedule to record the actual designed area highlighting any variance.

2.5.2 For the RHSC & DCN project the schedule of accommodation was prepared by NHSL and included within the ITPD Room Information. During the preferred bidder stage the schedule of accommodation was developed by IHSL.

2.6 "*6. Particularly with regard to paragraph 6, could you further explain or clarify the connection between the room function reference sheet, the 'department sheets', ADB Room Data Sheets, and the room data sheets that NHSL and IHSL were responsible for (as you understand it).*"

2.6.1 As a preliminary point, as explained above and by way of clarification, Multiplex would direct the Inquiry to the response to questions 1 and 4 above, as to the responsibility for the EM and Room Data Sheets.

2.6.2 The environmental matrix format was devised prior to Multiplex's involvement and contained both the Room Function Reference Sheet and the Department Sheets.

2.6.3 The Room Function Reference Sheet was included in the EM provided with the ITPD, it provided one line entry for each room type in the facility. The sheet contains the environmental data for each room type. This sheet confirms "*Refer to individual department sheets for individual room environmental conditions"*.

2.6.4 The Department Sheets contain all rooms within each department and provides the environmental conditions for each room. It covers all departments within the facility, as such it is significantly larger than the Room Function Reference Sheets.

2.6.5 Room data sheets are generally produced using a software package such as the Activity Data Base ("ADB") or similar. The system allows room data sheets to be developed from a standard library that can be modified to record specific client requirements.

2.6.6 Item 1 of the Guidance Notes to the EM provided with the ITPD stated: "*This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets."*

2.6.7 Item 1 of the Guidance Notes to the EM incorporated in the Project Agreement stated: "*This workbook is prepared for the Financial Close Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets.*"

2.6.8 At Financial Close, under the Project Agreement, Room Data Sheets were defined as having "*the meaning given in Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters)*". Section 6 then states:

"*The Room Data Sheets are the Room Data Sheets as set out on the disc in the Agreed Form identified and executed as Appendix 1 (RDS Pack) and Appendix 2 (Environmental Matrix) of Section 6 (Room Data Sheets) of Schedule Part 6 (Construction Matters) of this Agreement, referred to in and forming part of this Agreement.*"

2.6.9 The Room Data Sheets on the project were accordingly formed of two parts: (1) the Room Data Sheets which were provided as Appendix 1 to Section 6; and (2) the EM which is Appendix 2. The ventilation requirements in the Room Data Sheets incorporated as Appendix 1 to Section 6 of the Project Agreement were derived from the EM on the basis they represented NHSL's specific requirements for the project.

2.7 "*7. Other than SHTM 03-01, what guidance and sources of information were used to compile the Environmental Matrix, with particular reference to single bedrooms, 4 bed-rooms/multi-bed wards, and Critical Care/HDU?*"

2.7.1 Multiplex is unable to assist the Inquiry with this question in relation to the EM's prepared by NHSL.

2.7.2 Likewise, insofar as the EM issued on 29 September 2014 and on 31 October 2014 is concerned, the environmental conditions within the EM were provided by NHSL. Multiplex would respectfully direct the Inquiry to Wallace Whittle as the authors of the EMs issued in 2014 to as to the guidance and information it took into account in preparing the EMs.

2.8 "*8. Why are a number of department-specific room types (for example for neutropenic patient areas, infectious disease iso room, UCV operating theatre and anaesthetic room) not included in the Room Function Reference Sheet when they are referred to in Appendix 1 of SHTM 03-01 part A as requiring specialised ventilation?*"

2.8.1 Multiplex is unable to assist the Inquiry with this question, the format of the Room Function Reference Sheet was decided prior to their involvement.

2.9 "*9. Is there a difference between "HDU" and "Critical Care"?*"

2.9.1 Multiplex is unable to assist the Inquiry with this question as it is a matter for suitably qualified clinical experts.

2.9.2 Multiplex would note that at the RHSC & DCN project the "*Critical Care*" department provides both Paediatric Intensive Care ('PICU') and High Dependency ('HDU').

2.10 "*10. Why was "HDU" removed from the room function reference sheet in IHSL's version of the EM dated from September 2014? Was NHSL informed?*"

2.10.1 The EM issued on 29 September 2014 was prepared by Wallace Whittle and Multiplex would therefore respectfully direct the Inquiry to Wallace Whittle to respond to this question.

2.10.2 Multiplex would note that the tab 'All Rooms' includes reference to HDU's.

2.11 "*11. The table in appendix 1 of SHTM 03-01 Part A recommends 'S/E/N' (supply, extract and natural) ventilation for single rooms. What do you understand this to mean in relation to the 'mixed mode' ventilation strategy referred to in different versions of the EM?*"

2.11.1 Multiplex understands the S/E/N outlined in SHTM 03-01 Part A, to be referencing alternative means of providing ventilation i.e. mechanical supply, mechanical extract or natural ventilation. The SHTM has a section that outlines the use and limitations of a natural ventilation solution, and the variability on ventilation rates. The SHTM further goes on to state that *'the variability is normally acceptable for general areas including office accommodation, general wards,….'*.

2.11.2 The mixed mode ventilation strategy was devised prior to Multiplex's involvement, with the BCRs requiring the minimisation of mechanical ventilation and use of natural ventilation (reference is made to paragraphs 5.26 and 8.5.3).

2.11.3 Multiplex were not involved in the production of the Reference Design EM. It would appear to include 4 ac/hr mechanically while taking advantage of natural ventilation effects when present. The 4 ac/hr mechanical ventilation appears to be that required to maintain the NHSL enhanced temperature range of 18 - 25°C for bedrooms as described within the Hulley & Kirkwood reference design Thermal Comfort Report. Multiplex is of the view that this could (along with any other factors considered to be relevant by NHSL) be a possible explanation for the selection of 4 ac/hr plus natural ventilation as designed by Hulley & Kirkwood and prescribed in the Project Agreement. Reference is made to item 5 and 15 in the Guidance Notes to the ITPD and Project Agreement EM and Guidance Note 26 of the Project Agreement EM.

2.12 "*12. In respect of the table below, do you agree that the following are areas of non-compliance with SHTM 03-01? To what extent would these issues have compromised patient safety?*"

2.12.1 As a preliminary point and for clarification, Multiplex would refer to Section 2 of its 5 November 2021 Response to the Inquiry's Request for Information Number 2, including that under the Project Agreement between NHSL and IHSL and the Construction Contract between IHSL and Multiplex, the design and installation of the ventilation systems for the RHCYP & DCN project which Multiplex

was to provide, was to comply with SHTM 03-01, except where a differing requirement was expressed by NHSL in the BCR's and/or required by the Room Data Sheets, as reviewed and approved by NHSL.

Non-compliance with SHTM 03-01 at financial close	Multiplex Comments
Multi-bed ward: SHTM 03-01 recommends 6ac/hr supply/natural ventilation for 'General Ward'. The EM provides for 4 ac/hr supply with extract via en-suite.	Generally concur that this statement aligns with SHTM 03-01 part A and the EM at Financial Close, although understanding of limitations in demonstrating air change rate when reliant on natural ventilation.
Multi-bed ward: SHTM 03-01 does not specify pressure regime. The EM provides for pressure to be positive to en-suite.	SHTM 03-01 Part A App A does not give criteria for multi bed ward – it gives criteria for general ward or single bedroom. General ward criteria within SHTM 03-01 Part A does not stipulate specific pressure requirement.
SHTM recommends temperature range of 18 – 28 degrees Celsius for single bedrooms and general wards. The EM provides for 18 – 25 degrees.	This aligns with Multiplex's understanding of SHTM 03-01 Part A, the Board's Construction Requirements and other contract documents stipulate more onerous criteria, hence the values of the tighter range in the EM.
Single bedrooms: SHTM 03-01 recommends 6ac/hr, EM recommends 4ac/hr	Generally, concur that this statement aligns with SHTM 03-01 part A. the EM at Financial Close required (rather than recommended) 4 mechanical ac/hr. The impact of natural ventilation and the methods of achieving i.e. S/E/N needs to also be considered.
Haematology/Oncology ward (which accommodates neutropenic patients). SHTM 03-01 recommends 10ac/hr supply and 10Pa (positive) pressure EM provides for: Bedrooms: 4ac/hr balanced pressure Isolation bedrooms: 10 ac/hr balanced pressure Multi-bed wards: 4ac/hr positive pressure	This aligns with Multiplex's understanding of SHTM 03-01Part A. EM statement about isolation room states supply of 10ac/h and balanced, however the type states supply air via lobby. EM also states multi bed as natural and central supply with 4 ac/h supply, extract via ensuite and positive pressure to ensuite.
Critical Care/HDU, single bed cubicles: SHTM 03-01 recommends 10ac/hr supply with positive pressure. The EM provides for 4ac/hr natural and central supply air, with extract via ensuite and balanced pressure	It should be noted that critical care and high dependency unit bed bays / single cubicles are not explicitly stated within App A of SHTM 03-01 Part A at time of developing brief / design. Section 8 of SHTM 03-01 Part A V3 (2022) now includes specific criteria for critical individual rooms and open bays.
Critical Care/HDU open plan bays: SHTM 03-01 recommends 10ac/hr supply with positive pressure. EM provides for 4ac/hr natural and central supply air with extract via en-suite and pressure positive to ensuite	It should be noted that critical care and high dependency unit bed bays / single cubicles are not explicitly stated within App A of SHTM 03-01 Part A at time of developing brief / design. Section 8 of SHTM 03-01 Part A V3 (2022) now includes specific criteria for critical individual rooms & open bays.

Non-compliance with SHTM 03-01 at financial close	Multiplex Comments
Critical Care/HDU isolation bedroom: SHTM 03-01 recommends 10ac/hr supply air, negative pressure and temperature 18-25 degrees Celsius. EM provides for isolation room with 10ac/hr, balanced pressure and temperature at 21-25 degrees Celsius. Also includes isolation room lobby which is not mentioned in SHTM 03-01	Under critical care areas, SHTM 03-01 Part A App A states isolation room **may** be negative pressure. For ward isolation rooms SHTM 03-01Part A App A, cross refers to SHPN 04 S1. Critical Care Units HBN 04-02 (2014) published as best practice guidance in Scotland states that *'ventilation system should provide source and protective isolation. A balanced supply and extract ventilation to isolation room and gowning lobby is, therefore, proposed.'*
Recovery Room (for operating theatres): SHTM 03-01 recommends 15ac/hr supply and extract with balanced pressure and temperature control range of 18-25 degrees Celsius. EM provides for 15ac/hr supply and extract and balanced pressure, but a 20 – 28 degrees Celsius temperature control range	This aligns with Multiplex's understanding of SHTM 03-01 Part A. In future revisions of the EM the temperature control range is changed to 20 - 25°C.

2.12.2 As set out previously, in terms of "*EM recommends*", adherence to the EM was mandated by NHSL, it was not a recommendation. This was used as the basis of the MEP design.

2.12.3 The EM at Financial Close, closely aligns with the reference design EM taking into account comments received from Mott MacDonald on behalf of NHSL. In versions post Financial Close the single bedrooms change to balanced pressure in-line with comments made by NHSL prior to Financial Close.

2.12.4 Multiplex is unable to assist the Inquiry in relation to matters of patient safety as that is a matter for suitably qualified clinical experts. In this regard, and by way of example, the Inquiry heard evidence from Mr Professor Humphreys that:

"*Controlled ventilation such as in isolation facilities is one component of preventing infection being spread or being acquired by patients via air.*"[21]

"*It is challenging to identify specially the exact contribution a controlled ventilated area may have in either preventing a patient acquiring infection or in general preventing infections being transmitted within a hospital, because ventilation is not used alone, but is part of a suite of preventative measures.*"[22]

2.13 "*13. Who reviewed the EM?*"

2.13.1 Multiplex is unable to assist the Inquiry in relation to the period prior to 11 March 2013.

2.13.2 In the period from 11 March 2013 to 5 March 2014 the EM was under the control of Mott MacDonald and NHSL.

21 Page 13 of Hearing commencing 9 May 2022 - Bundle 6 Expert Reports and Statement.
22 Page 14 of Hearing commencing 9 May 2022 - Bundle 6 Expert Reports and Statement.

2.13.3 In the period from 6 March 2014 to 13 February 2015 the EM was reviewed by Multiplex who deferred to Wallace Whittle as its specialist design consultant, Wallace Whittle, Mott MacDonald and NHSL reference is made to paragraph 2.1.4 above.

2.14 "*14. Was the EM reviewed by a healthcare planner, an Infection Prevention and Control nurse or expert, by clinicians or by Health Facilities Scotland? Please provide details.*"

2.14.1 Multiplex is unable to assist the Inquiry with this question. Communication to and from NHSL with regards to the EM was through Mott MacDonald.

3 Multiplex response to 'Narrative concerning the Reference Design of the Royal Hospital for Sick Children and Department for Clinical Neurosciences'

3.1 "*4.1 When was the Reference Design completed?*"

3.1.1 Multiplex is unable to assist the Inquiry with this question.

3.2 "*4.2 Room Data Sheets were a deliverable of the Reference Design Team. Why was the decision taken in May 2012 to cease production of Room Data Sheets?*"

3.2.1 Multiplex is unable to assist the Inquiry with this question.

3.3 "*4.3 When Room Data Sheet production was ceased, did the number of completed Room Data Sheets represent the majority of the development?*"

3.3.1 Multiplex is unable to assist the Inquiry with this question.

3.4 "*4.4 What were the Room Data Sheets referred to in Section 3.6.3 of ITPD Volume 3 and 'included in Schedule Part 6 Section 6'? Why were these given to bidders?*"

3.4.1 In regard to the first question, Room Data Sheets were not provided to the bidders. This was clarified at the bidder's day presentation on 13 December 2012, and reinforced within section 2.53 of the ITPD Volume 1 Revision B (noted at paragraph 2.4.1 above).

3.4.2 Multiplex is unable to assist the Inquiry with the second question.

3.5 "*4.5 Why was ventilation data provided in these Room Data Sheets if the preferred bidder had to verify it against functional requirements?*"

3.5.1 Reference is made to the response at paragraph 3.4.1 above.

3.5.2 Multiplex was not obliged to verify the ventilation data as the Reference Design EM was presented as defining NHSL's specific requirements.

3.6 "*4.6 Why was the Environmental Matrix from the capital phase of the project taken forward and developed under the NPD phase when, under that model, responsibility for environmental specifications was going to sit with the preferred bidder?*"

3.6.1 Multiplex is unable to assist the Inquiry with this question.

3.7 "*4.7 Where did the data within the Environmental Matrix come from? How was it arrived at?*"

3.7.1 Multiplex is unable to assist the Inquiry with this question in relation to the EM's prepared by NHSL.

3.7.2 Insofar as the EM issued on 29 September 2014 and on 31 October 2014 is concerned, the data came from NHSL.

3.8 "*4.8 The Inquiry understands that SG policy set out in HDL (2006) 58 and revised by CEL 19 (2010) mandated the use of ADB. It is further understood that ADB is typically used as the basis for producing project specific Room Data Sheets. However section 2.5.3 of ITPD Volume 1 (Reference Design and Mandatory Reference Design Requirements, Room Data Sheets) required bidders to incorporate the terms of the Environmental Matrix into Room Data sheets. Why were bidders to use the Environmental Matrix as the basis for producing Room Data Sheets rather than ADB?*"

3.8.1 Multiplex is unable to assist the Inquiry with this question.

3.9 "*4.9 HDL (2006) 58 and CEL 19 (2010) provided that an alternative to ADB could be used, so long as it was demonstrated that the alternative was of equal quality and value in its application as ADB. How was it demonstrated that the Environmental Matrix was of equal quality and value as ADB?*"

3.9.1 Multiplex is unable to assist the Inquiry with this question.

3.9.2 Multiplex understood that the EM defined NHSL's requirements and replaced the environmental data within ADB.

3.10 "*4.10 The Environmental Matrix features in ITPD Volume 1 Section 2.5 (Reference Design and Mandatory Reference Design Requirements), and ITPD Volume 3 presents the Environmental Matrix as mandatory for bidders to adopt. Why was this the case when the Reference Design was only to mandate Operational Functionality, and Operational Functionality was exclusively to be outlined in the Clinical Output Specification, the Schedule of Accommodation and the Adjacency Matrix?*"

3.10.1 Multiplex is unable to assist the Inquiry with this question.

3.10.2 Multiplex understood the EM was mandatory and that it set out NHSL's specific requirements for the RHSC & DCN project.

3.11 "*4.11 The Environmental Matrix derogated from the terms of SHTM 03-01. Was this derogation intended, and if so, was the decision to derogate documented and supplemented by a risk assessment?*"

3.11.1 Multiplex is unable to assist the Inquiry with this question.

3.11.2 Multiplex understood the EM represented NHSL's specific requirements for the RHSC & DCN project and so any derogation was intended. This was confirmed during the course of the project and as part of the Settlement Agreement and Supplemental Agreements between NHSL and IHSL and IHSL and Multiplex dated 22 February 2019.

3.12 "*4.12 Within the Room Information, the Reference Design contained ventilation requirements. Were these ventilation requirements approved by clinicians, IP&C specialists, or an Authorising Engineer (or an equivalent independent engineering professional) before the Reference Design was issued to bidders?*"

3.12.1 Multiplex is unable to assist the Inquiry with this question.

3.13 "*4.13 The Environmental Matrices of 2010 anticipated a bedroom ventilation design supplemented by openable windows. Why in 2015 did the Board confirm that the ventilation design should not rely on openable windows?*"

3.13.1 Mott MacDonald's response on 29 January 2015 (referred to at paragraph 2.1.4.11 above) was in relation to negative / positive pressure regime within the bedrooms, not air change rates.

3.14 "*4.14 The M&E Reference Design Approach paper provides that 'rooms will not be reliant on natural ventilation alone, unless they comply with maximum temperature limits listed in the RDS Environmental Matrices'. Were maximum temperature limits the decisive factor for how rooms would be ventilated?*"

3.14.1 Multiplex is unable to assist the Inquiry with this question, as they were not involved during this period, reference is made to paragraph 2.11.3 regarding Multiplex's current understanding of the impact of temperature on NHSL's ventilation strategy.

3.15 "*4.15 If it was intended that the preferred bidder would verify and develop the Environmental Matrix, how and where was this communicated?*"

3.15.1 Multiplex is unable to assist the Inquiry with this question as to NHSL's intentions.

3.15.2 Multiplex understood the EM was mandatory and that it set out NHSL's specific requirements for the RHSC & DCN project.

3.16 "*4.16 If one of the failed bidders changed ventilation data within the Environmental Matrix and brought this to the attention of NHSL, what was NHSL's response and why?*"

3.16.1 Multiplex is unable to assist the Inquiry with this question.

4 Multiplex response to 'List flagging gaps in paperwork and ambiguity surrounding final versions identified in the Reference Design paper'

4.1 Multiplex provides the following documents in response to the Inquiry's request:

4.1.1 Hullley and Kirkwood Consulting Engineers Ltd, 'Reference Design Stage BREEAM 2008/2011 Comparison and Project Implications' (September 2011, Issue No.2, Rev A);

4.1.2 Hulley and Kirkwood, 'Reference Design Stage: Section 6 SBEM Compliance Report Revision A' (17 February 2012);

4.1.3 NHS Lothian, 'Invitation to Participate in Dialogue Volume 1 Revision B' (17 April 2013);

4.1.4 NHS Lothian, ‘Invitation to Submit Final Tender’ (Volume 1, Revision A) (16 December 2013);

4.1.5 Wallace Whittle, ‘Air Movement Report For Single Bedrooms (Draft)’ (12 January 2015).

29/07/2022

Healthcare Associated Infection System for Controlling Risk in the Built Environment (HAI-SCRIBE)

HAI SCRIBE

Project: RHSC & DCN Re-Provision Project, Little France
Location:
Date:19th November 2014

Construction Start: **TBC**
Construction End: **TBC**

Project Summary:

A project to re-provide the services from the Royal Hospital for Sick Children, Child and Adolescent Mental Health Service and the Department of Clinical Neurosciences in a single building adjoining the Royal Infirmary of Edinburgh at Little France

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Risk Assessment in accordance with “HAI-SCRIBE June 2007: Development Stage 3, Construction / Redevelopment Phase in accordance with: Scottish Health Facilities Note 30: Version 3”

Section 1

Scope of Works:	
Location of work activity	**RIE Campus – Car Park B**
Commencement date and duration	**TBC**
Description of work activity	**Construction of new facility**
Who will carry out the work	**IHSL**
Estates Department representative name and contact details.	

HAI SCRIBE Assessment			
Construction/ Refurbishment activity type	**Type 4– Major demolition and construction projects**		
	Comment Small amount of demolition required		
Patient Risk Group	**Group 4 – highest risk**		
	Comment		
Risk Classification	**Class I**	Tick	
	Class II		
	Class III		
	Class IV	√	

Healthcare Associated Infection System for Controlling Risk in the Built Environment (HAI-SCRIBE)

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Section 2 – consultation.			
The undernoted staff have been consulted in the preparation of this Risk Assessment			
Department	**Print**	**Sign**	**Date**
Infection Control	Janette Richards		19:11:2014
Design Manager/IHSL	Liane Edwards-Scott		19:11:2014
Lead Architect/IHSL	Lorraine Robertson		19:11:2014
Technical Advisor	David Stillie		19:11:2014
Technical Advisor	Colin Macrae		19:11:2014
Clinical Director	Janice MacKenzie		19:11:2014
Project Manager	Fiona Halcrow		19:11:2014
Contracts Manager	Stuart Davidson		19:11:2014

Section 3 – contractor acceptance.			
I have read and understood the control measures detailed within this risk assessment and accept responsibility for the implementation and maintenance of those measures. The work activity **must not** commence until the work area has been inspected and approval to proceed has been granted by the responsible Estates Department representative.			
Organisation	Print name	Sign	Date

Section 4 – initial inspection of control measures.			
I have inspected the work area and am satisfied that the necessary control measures are in place.			
Department	Print	Sign	Date
Estates			
Infection Control			

Proposed Plan

Section 2: Assessment of the Risk of Infection from the Design and Layout of the Facility

	Comments					
	Yes	**X**	**No**		**N/A**	

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	healthcare facility inhibit the spread of infection?	With reference to national Guidance SHTMs, HBNs etc Infection Control Drawings have been produced and reviewed throughout the process up until FC.					
2.2	Is the ventilation system design fit for purpose, given the potential for infection spread via ventilation systems?	**Yes**		**No**	**x**	**N/A**	
		Some concern has been raised in relation to a potential issue with ventilation with regard to negative/balance pressure in single bed rooms. Awaiting drawings and further information to fully understand if there is a risk/issue.					
2.3	Has account been taken of the use of natural ventilation being affected by neighbourhood sources of environmental pollution as discussed in Development Stage 1?	**Yes**	**X**	**No**		**N/A**	
2.4	Is the interior of the healthcare facility easy to clean and maintain clean? (Surfaces of floors, walls and ceilings should be appropriate to the particular room and the required management of infection risk. Thus, carpeted floors in offices may be appropriate but not appropriate in clinical areas. There should be coving at right angle junctions of walls, floors and ceilings to ease effective cleaning.)	**Yes**	**X**	**No**		**N/A**	
		Throughout the process interior design has been discussed and meets HAI Scribe 30. No clinical area will have carpets in this building.					
2.5	Does each ward allow sufficient space between beds to comply with the current guidance, thus facilitating the healthcare services to the patient, which in turn may reduce HAI risk?	**Yes**	**X**	**No**		**N/A**	
		The distance between bed spaces in the multiple bed areas has been assessed throughout the process and meets guidance. Single room accommodation derogation was sought for both RHSC and DCN and approved by the SGHD.					
2.6	Are there facilities to enable high standards of hand hygiene to be maintained? For example, standards specified in: • 'Improving Clinical Care in Scotland Healthcare Associated Infection (HAI); Infection Control' (QIS 2003); • 'Standards Healthcare Associated Infection (HAI) Infection Control' (CSBS 2001).	**Yes**	**X**	**No**		**N/A**	
		Reviewed thoroughout detailed UGM's (April-July 2014).					
2.7	Where curtain rails and curtains are fitted are they easy to clean and maintain clean?	**Yes**	**X**	**No**		**N/A**	
		To be further developed through procurement phase.					

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2.8 Is the toilet, bath and shower accommodation conveniently sited in relation to the ward and, where possible, is this accommodation en- suite?	**Yes**	**X**	**No**		**N/A**		
	This has been achieved and all relevant drawings have been signed off as operationally acceptable during the UGMs (Apr-July 2014).						
2.9 Is the toilet, bath and shower accommodation accessible for cleaning purposes and is the accommodation easily cleaned?	**Yes**	**X**	**No**		**N/A**		
	Will be compliant with SHTM 64.						
2.10 Does the ventilation of the toilet, bath and shower accommodation ensure extraction of air from the room to the outside air?	**Yes**	**X**	**No**		**N/A**		
	Exceeds guidance (3 to 10 air changes).						
2.11 Are the staff changing facilities suitably sited, have sufficient space, and readily accessible?	**Yes**	**X**	**No**		**N/A**		
	Various staff changing accommodation within building that meets relevant guidance. Signed off during UGM's (April - July 2014)						
2.12 Are the staff showering facilities suitably sited and readily accessible for use, particularly in the event of contamination incidents?	**Yes**	**X**	**No**		**N/A**		
	Showering facilities for staff to access in incidents requiring decontamination are sited in relevant departments (e.g. ED/Child Life and Health/Radiology Department /Helipad).						
2.13 Is there satisfactory provision of isolation facilities for infectious and potentially infectious patients?	**Yes**	**X**	**No**		**N/A**		
	Each ward area has the required number of isolation facilities.						
2.14 Is there separation of dirty areas from clean areas to minimise the risk of HAI contamination?	**Yes**	**X**	**No**		**N/A**		
	FM drawings illustrate the separation of dirty and clean areas. Drawings accepted at UGM's and FM Group.						
2.15 Is there sufficient storage accommodation provided in each area of the healthcare facility for equipment which is mobile and not in continuous use?	**Yes**	**X**	**No**		**N/A**		
	Sufficient storage accommodation has been provided in all departments to meet users needs (Mobile Hoists/wheelchairs etc).						
2.16 Are there satisfactory facilities for storage of	**Yes**	**X**	**No**		**N/A**		

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cleaning equipment e.g. Domestic Services room?	DSR facilities provided in department areas that allow for the safe storage of materials.

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2.17 Is the service ducting for utilities etc. concealed to ease routine cleaning of surfaces?	**Yes**	**X**	**No**		**N/A**	
	Integrated Plumbing System used to ease access for cleaning and identified on drawings. Bed Head trunking will conceal services.					
2.18 Does the service ducting for utilities provide sufficient access for maintenance and pest control?	**Yes**	**X**	**No**		**N/A**	
	Drawings show removable panels for access for maintenance and management of pest control. Further detail to be developed.					
2.19 Are there sufficient and conveniently sited facilities provided for the cleaning of common equipment like trolleys, wheelchairs etc?	**Yes**	**X**	**No**		**N/A**	
	Designated areas in specific departments to aid this process.					
2.20 Are the food preparation areas (including ward kitchens) and distribution systems fit for purpose and complying with current food safety and hygiene standards?	**Yes**	**X**	**No**		**N/A**	
	Specialist catering advisors involved in process to ensure areas fit for purpose on completion.					
2.21 Are waste management facilities and systems robust and fit for purpose? (This includes local and central storage, systems for movement of waste to central storage, systems for handling and compaction of waste, systems for separation and security of waste, especially healthcare clinical waste.)	**Yes**	**X**	**No**		**N/A**	
	Segregated waste areas provided and further detail to follow as part of the RDD process.					
2.22 Is the water distribution system designed to discourage bacterial growth and to ensure delivery of hot and cold water to users at the appropriate temperatures?	**Yes**	**X**	**No**		**N/A**	
	Further detail to follow as part of the RDD process.					
2.23 Is the drainage system design, especially within the healthcare facility building, fit for purpose with access points for maintenance carefully sited to minimise HAI risk?	**Yes**	**X**	**No**		**N/A**	
	Further detail to be provided through RDD process.					

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2.24	Are there satisfactory arrangements for effective management of laundry? (This includes local and central storage, systems for movement of laundry to central storage, systems for handling laundry, systems for separation and security of laundry, especially contaminated laundry.)	**Yes**	**X**	**No**		**N/A**	
		Areas identified to manage all laundry types.					
2.25	Are there sufficient and suitably sited facilities for bed pan washing/disposal?	**Yes**	**X**	**No**		**N/A**	
		Each clinical area has a dirty utility room with access to facilities for bed pan washing/disposal where relevant.					

The answers to the above questions should be 'yes'. Where a potential hazard is identified a careful assessment of that hazard must be undertaken.

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ID	Room Type	Building Regulations		Room Conditions				System					Internal Gains											Air Exchanges		
													People			Lighting						Equipment					
		NCM Building Type	NCM Activity	Heating Set Point (°C)	Heating Profile	Cooling Set Point (°C)	Cooling Profile	Type	Heating Seasonal Efficiency	Cooling Seasonal Efficiency	Specific Fan Power (W/L/s)	Heat Recovery	Occupancy Density	Sensible Gain (W)	Latent Gain (W)	Occupancy Profile	Lighting Design Lux Level	Lighting Energy Use (W/m²)	Lighting Energy Use (W/m²/100lux)	Lighting Profile	Lighting Control	Electrical Load (W/m²)	Sensible Gain (W/m2)	Eqipment Profile	Mechanical Ventilation	Natural Ventilation	Infiltration (ACH)
001	Atrium (Public Circulation)	C2: Hospital (Hospital)	NCM Hosp: Public circulation areas	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	500	12.00	2.40	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	50	50	6-9 50% 9-18 100% 18-24 -25%	12 L/s.m²	Yes	0.125
002	Anaesthetic	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	130	255	6-9 50% 9-18 100% 18-24 -5%	500	20.90	4.18	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	15 ACH	No	0.125
003	Bays	C2: Hospital (Hospital)	NCM Hosp: Circulation area	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	0	n/a	n/a	n/a	100	8.00	8.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
004	Bedroom	C2: Hospital (Hospital)	NCM Hosp: Bedroom	21	On continuously	25	On continuously	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1.58p/10m²	70	60	100%	177	3.06	1.73	6-9 50% 9-18 100% 18-24 -25%	Manual	42	42	6-9 50% 9-18 100% 18-24 -25%	4 ACH	Mixed Mode	0.125
005	Changing Facilities	C2: Hospital (Hospital)	NCM Hosp: Changing facilities	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	n/a	n/a	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	2.5p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	100	2.75	2.75	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	15	15	6-9 50% 9-18 100% 18-24 -25%	5 ACH	No	0.125
006	Circulation	C2: Hospital (Hospital)	NCM Hosp: Circulation area	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	200	6.00	3.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	2 ACH	Yes	0.125
007	Clinic	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Consulting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	8.10	2.70	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
008	Consulting	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Consulting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	8.61	2.87	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
009	DSR	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	100	6.24	6.24	0-24 - 40%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	10 ACH	No	0.125
010	Dental	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	500	8.00	1.60	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	10 ACH	No	0.125
011	Dining	C2: Hospital (Hospital)	NCM Hosp: Eating/drinking area	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	6p/10m²	70	60	6-9 50% 9-18 50% 18-24 -5%	300	5.67	1.89	6-9 50% 9-18 50% 18-24 -5%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 50% 18-24 -5%	6 ACH	No	0.125
012	Ensuites	C2: Hospital (Hospital)	NCM Hosp: Bathroom	21	On continuously	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	2p/10m²	70	60	6-9 50% 9-18 100% 18-24 -5%	200	8.34	4.17	0-24 - 50%	Auto On/Off (PIR)	0	0	n/a	10 ACH	No	0.125
013	Equipment	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	200	8.00	4.00	0-24 - 40%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
014	Examination	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Consulting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
015	Freezer (room with freezers)	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	On continuously	25	On continuously	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	300	7.92	2.64	0-24 - 40%	Manual	50	50	24 hour	6 ACH	No	0.125
016	IPS	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: IT)	n/a	n/a	n/a	n/a	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	0	n/a	n/a	n/a	200	8.00	4.00	0-24 - 40%	Auto On/Off (PIR)	50	50	6-9 100% 9-18 100% 18-24 -100%	3 ACH	No	0.125
017	IT	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: IT)	n/a	n/a	23	On continuously	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	0	n/a	n/a	n/a	300	7.92	2.64	0-24 - 50%	Auto On/Off (PIR)	300	300	6-9 100% 9-18 100% 18-24 -100%	2 ACH	No	0.125
018	Injection	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
019	Interview	C2: Hospital (Hospital)	NCM Hosp: Office	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	1p/2m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	8.16	2.72	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	3 ACH	No	0.125
020	Kitchen	C2: Hospital (Hospital)	NCM Hosp: Food preparation area	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	170	255	6-9 60% 9-18 100% 18-24 -20%	500	12.60	2.52	6-9 60% 9-18 100% 18-24 -20%	Auto On/Off (PIR)	300	300	6-9 60% 9-18 100% 18-24 -20%	20 ACH	No	0.125
021	Laboratory	C2: Hospital (Hospital)	NCM Hosp: Laboratory	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	500	14.90	2.98	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	50	50	6-9 50% 9-18 100% 18-24 -25%	6 ACH	No	0.125
022	Laundry	C2: Hospital (Hospital)	NCM Hosp: Laundry	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	200	200	6-9 50% 9-18 100% 18-24 -25%	10 ACH	No	0.125
023	Library	C2: Hospital (Hospital)	NCM Hosp: Classroom	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	28	6-9 Off 9-18 18/28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	200	8.00	4.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -25%	7 ACH	No	0.125
024	Lobby	C2: Hospital (Hospital)	NCM Hosp: Public circulation areas	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Nat Vent	0.970	n/a	n/a	n/a	1p/15m²	70	60	6-9 100% 9-18 100% 18-24 -25%	200	5.92	2.96	6-9 100% 9-18 100% 18-24 -50%	Auto On/Off (PIR)	0	0	n/a	2 ACH	No	0.125
025	Lounge	C2: Hospital (Hospital)	NCM Hosp: Reception (Hospital: Waiting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/3m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 100% 18-24 -25%	7 ACH	No	0.125
026	Meeting	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Meeting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	6p/10m²	70	60	6-9 5% 9-18 50% 18-24 -25%	300	7.92	2.64	6-9 5% 9-18 50% 18-24 -25%	Auto On/Off (PIR)	15	15	6-9 5% 9-18 50% 18-24 -25%	4 ACH	No	0.125
027	Nappy Change	C2: Hospital (Hospital)	NCM Hosp: Toilet	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	2p/10m²	70	60	6-9 100% 9-18 50% 18-24 -25%	200	8.00	4.00	6-9 100% 9-18 50% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 50% 18-24 -25%	10 ACH	No	0.125
028	Office	C2: Hospital (Hospital)	NCM Hosp: Wards (Offices)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	8.37	2.79	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	4 ACH	No	0.125
029	Operating	C2: Hospital (Hospital)	NCM Hosp: Operating theatre	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	170	255	6-9 50% 9-18 100% 18-24 -5%	500	26.60	5.32	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	25 ACH	No	0.125
030	Pantry	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Tea)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	1.25p/10m²	70	60	6-9 50% 9-18 100% 18-24 -20%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -20%	Auto On/Off (PIR)	100	100	6-9 50% 9-18 100% 18-24 -20%	7 ACH	No	0.125
031	Pharmacy	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	2p/10m²	70	60	6-9 50% 9-18 100% 18-24 -5%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -5%	Auto On/Off (PIR)	50	50	6-9 50% 9-18 100% 18-24 -5%	6 ACH	No	0.125
032	Photocopy	C2: Hospital (Hospital)	NCM Hosp: Cupboard	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	50	50	6-9 100% 9-18 100% 18-24 -25%	4 ACH	No	0.125
033	Plant	C2: Hospital (Hospital)	NCM Hosp: Light plant room	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	n/a	300	6.39	2.13	0-24 - 40%	Auto On/Off (PIR)	300	300	6-9 100% 9-18 100% 18-24 -100%	2 ACH	No	0.125
034	Preparation	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	170	255	6-9 50% 9-18 100% 18-24 -5%	500	16.85	3.37	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	25 ACH	No	0.125
035	Reception	C2: Hospital (Hospital)	NCM Hosp: Reception	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	4p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	6.96	2.32	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	3 ACH	No	0.125
036	Reporting	C2: Hospital (Hospital)	NCM Hosp: Office	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	7.92	2.64	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	4 ACH	No	0.125
037	Recovery	C2: Hospital (Hospital)	NCM Hosp: Wards (Patient)	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m²	70	60	6-9 100% 9-18 100% 18-24 -25%	500	11.30	2.26	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	25	25	6-9 100% 9-18 100% 18-24 -25%	15 ACH	No	0.125
038	Seminar	C2: Hospital (Hospital)	NCM Hosp: Hall/lecture theatre/assembly area	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	7p/10m²	70	60	6-9 50% 9-18 100% 18-24 -5%	300	7.23	2.41	6-9 50% 9-18 100% 18-24 -5%	Auto On/Off (PIR)	15	15	6-9 50% 9-18 100% 18-24 -5%	4 ACH	No	0.125
039	Shop	C2: Hospital (Hospital)	NCM Hosp: Public circulation areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	10p/10m²	70	60	6-9 50% 9-18 100% 18-24 -0%	300	7.92	2.64	6-9 50% 9-18 100% 18-24 -0%	Manual	45	45	6-9 50% 9-18 100% 18-24 -0%	3 ACH	No	0.125
040	Scrub Up	C2: Hospital (Hospital)	NCM Hosp: Operating theatre	22	6-9 18 oC 9-18 22 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Ceiling Cassette + Central Mech Vent	0.970	4.09	1.5	0.6	1.5p/10m²	170	255	6-9 50% 9-18 100% 18-24 -5%	500	12.00	2.40	6-9 50% 9-18 100% 18-24 -5%	Manual	100	100	6-9 50% 9-18 100% 18-24 -5%	25 ACH	No	0.125
041	Shower	C2: Hospital (Hospital)	NCM Hosp: Bathroom	22	On continuously	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	2.5p/10m²	70	60	6-9 50% 9-18 100% 18-24 -25%	100	2.22	2.22	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	15	15	6-9 50% 9-18 100% 18-24 -25%	5 ACH	No	0.125
042	Staff	C2: Hospital (Hospital)	NCM Hosp: Office (Hospital: Meeting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/3m²	70	60	6-9 100% 9-18 100% 18-24 -25%	300	8.46	2.82	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 100% 18-24 -25%	7 ACH	No	0.125

043	Store	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	200	3.64	1.82	0-24 - 40%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
044	Toilets	C2: Hospital (Hospital)	NCM Hosp: Toilet	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	1p/10m^2	70	60	6-9 50% 9-18 50% 18-24 -25%	200	6.40	3.20	6-9 50% 9-18 50% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	10 ACH	No	0.125
045	Trays	C2: Hospital (Hospital)	NCM Hosp: Cupboard	18	6-9 16 oC 9-18 18 oC 18-24 16 oC	n/a	n/a	Radiant Panels + Zonal Extract	0.970	n/a	0.6	n/a	0	n/a	n/a	n/a	200	8.00	4.00	0-24 - 40%	Auto On/Off (PIR)	0	0	n/a	3 ACH	No	0.125
046	Treatment	C2: Hospital (Hospital)	NCM Hosp: A&E consulting/treatment/work areas	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1p/2m^2	70	60	6-9 50% 9-18 100% 18-24 -0%	300	10.02	3.34	6-9 50% 9-18 100% 18-24 -0%	Auto On/Off (PIR)	25	25	6-9 50% 9-18 100% 18-24 -5%	10 ACH	No	0.125
047	Utility	C2: Hospital (Hospital)	NCM Hosp: Cupboard	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	25	6-9 Off 9-18 25 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	2p/10m^2	70	60	6-9 100% 9-18 100% 18-24 -25%	150	5.84	3.89	6-9 100% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	10	10	6-9 100% 9-18 100% 18-24 -25%	6 ACH	No	0.125
048	Waiting	C2: Hospital (Hospital)	NCM Hosp: Reception (Hospital: Waiting)	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1p/10m^2	70	60	6-9 50% 9-18 100% 18-24 -25%	300	12.00	4.00	6-9 50% 9-18 100% 18-24 -25%	Auto On/Off (PIR)	0	0	n/a	5 ACH	Yes	0.125
049	Ward Areas	C2: Hospital (Hospital)	NCM Hosp: Wards (Patient)	21	On continuously	25	On continuously	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1.58p/10m^2	70	60	100%	100	2.87	2.87	6-9 50% 9-18 100% 18-24 -25%	Manual	42	42	6-9 50% 9-18 100% 18-24 -25%	4 ACH	Mixed Mode	0.125
050	Workshop	C2: Hospital (Hospital)	NCM Hosp: Industrial process area	21	6-9 18 oC 9-18 21 oC 18-24 18 oC	28	6-9 Off 9-18 28 oC 18-24 Off	Radiant Panels + Central Mech Vent	0.970	n/a	1.5	0.6	1.58p/10m^2	70	60	100%	100	8.00	8.00	6-9 50% 9-18 100% 18-24 -25%	Manual	50	50	6-9 50% 9-18 100% 18-24 -25%	5 ACH	No	0.125
051	X-ray/Ultrasound/Gamma/MRI/ICT	C2: Hospital (Hospital)	NCM Hosp: Diagnostic Imaging	21	6-9 18 oC 9-18 21oC 18-24 18 oC	25	6-9 Off 9-18 25oC 18-24 Off	All Air System Central Mech Vent	0.970	4.09	1.5	0.6	1.25p/10m^2	70	60	6-9 50% 9-18 100% 18-24 -5%	500	11.85	2.37	6-9 50% 9-18 100% 18-24 -5%	Auto On/Off (PIR)	100	100	6-9 50% 9-18 100% 18-24 -5%	8 ACH	No	0.125

	System	Heating Seasonal Efficiency	Cooling Seasonal Efficiency	Specific Fan Power (W/L/s)	Heat Recovery
Atrium (Public Circulation)	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
Bedroom	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Changing Facilities	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Clinic	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Consulting	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Dental	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Dining	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Examination	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
IPS	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
IT	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Injection	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Kitchen	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Laboratory	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Laundry	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Library	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Lounge	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Office	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Pharmacy	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Photocopy	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Reception	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Reporting	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Recovery	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Staff	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Utility	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Waiting	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Ward Areas	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Workshop	01_Radiant_Panels+Central_Mech_Vent	0.97	n/a	1.50	0.60
Bays	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
Circulation	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
Lobby	02_Radiant_Panels+Nat_Vent	0.97	n/a	n/a	n/a
DSR	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Ensuites	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Equipment	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Freezer (room with freezers)	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Nappy Change	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Pantry	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Shower	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Store	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Toilets	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Trays	03_Radiant_Panels+Zonal_Extract	0.97	n/a	0.60	n/a
Anaesthetic	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Operating	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Preparation	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Scrub Up	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
Treatment	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60
X-ray/Ultrasound/Gamma/MRI/ICT	04_All_Air_System_Central_Mech_Vent	0.97	4.09	1.50	0.60

Interview	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Meeting	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Seminar	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Shop	05_Ceiling_Cassette+Central_Mech_Vent	0.97	4.09	1.50	0.60
Plant	n/a	n/a	n/a	n/a	n/a

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

No	Thermal Template	NCM Activity
001	001_Atrium_(Public_Circulation)	NCM Hosp: Public circulation areas
002	002_Anaesthetic	NCM Hosp: A&E consulting/treatment/work areas
003	003_Bays	NCM Hosp: Circulation area
004	004_Bedroom	NCM Hosp: Bedroom
005	005_Changing_Facilities	NCM Hosp: Changing facilities
006	006_Circulation	NCM Hosp: Circulation area
007	007_Clinic	NCM Hosp: Office (Hospital: Consulting)
008	008_Consulting	NCM Hosp: Office (Hospital: Consulting)
009	010_DSR	NCM Hosp: Cupboard
010	011_Dental	NCM Hosp: A&E consulting/treatment/work areas
011	012_Dining	NCM Hosp: Eating/drinking area
012	013_Ensuites	NCM Hosp: Bathroom
013	014_Equipment	NCM Hosp: Cupboard
014	015_Examination	NCM Hosp: Office (Hospital: Consulting)
015	016_Freezer	NCM Hosp: Cupboard
016	017_IPS	NCM Hosp: Office (Hospital: IT)
017	018_IT	NCM Hosp: Office (Hospital: IT)
018	019_Injection	NCM Hosp: A&E consulting/treatment/work areas
019	020_Interview	NCM Hosp: Office
020	021_Kitchen	NCM Hosp: Food preparation area
021	022_Laboratory	NCM Hosp: Laboratory
022	023_Laundry	NCM Hosp: Laundry
023	024_Library	NCM Hosp: Classroom
024	025_Lobby	NCM Hosp: Public circulation areas
025	026_Lounge	NCM Hosp: Reception (Hospital: Waiting)
026	027_Meeting	NCM Hosp: Office (Hospital: Meeting)
027	028_Nappy_Change	NCM Hosp: Toilet
028	029_Office	NCM Hosp: Wards (Offices)
029	030_Operating	NCM Hosp: Operating theatre
030	031_Pantry	NCM Hosp: Office (Hospital: Tea)
031	032_Pharmacy	NCM Hosp: A&E consulting/treatment/work areas
032	033_Photocopy	NCM Hosp: Cupboard
033	034_Plant	NCM Hosp: Light plant room
034	035_Preparation	NCM Hosp: A&E consulting/treatment/work areas
035	036_Reception	NCM Hosp: Reception
036	037_Reporting	NCM Hosp: Office
037	038_Recovery	NCM Hosp: Wards (Patient)
038	040_Seminar	NCM Hosp: Hall/lecture theatre/assembly area
039	041_Shop	NCM Hosp: Public circulation areas
040	042_Scrub-up	NCM Hosp: Operating theatre
041	043_Shower	NCM Hosp: Bathroom
042	044_Staff	NCM Hosp: Office (Hospital: Meeting)
043	045_Store	NCM Hosp: Cupboard
044	046_Toilets	NCM Hosp: Toilet
045	047_Trays	NCM Hosp: Cupboard
046	048_Treatment	NCM Hosp: A&E consulting/treatment/work areas
047	049_Utility	NCM Hosp: Cupboard
048	050_Waiting	NCM Hosp: Reception (Hospital: Waiting)
049	051_Ward_Areas	NCM Hosp: Wards (Patient)
050	052_Workshop	NCM Hosp: Industrial process area
051	053_X-ray/Ultrasound/Gamma/MRI/ICT	NCM Hosp: Diagnostic Imaging

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Photovoltaic Panels	
Area (m2)	800
Type	Polycrystalline
Nominal Efficiency (%)	15
Nominal Cell Temperature (oC)	45
Temperature Coefficient	0.004
Electrical Conversion Efficiency (%)	95
Inclination Angle (deg)	30
Angle from North (deg)	180.0 (South)

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Combined Heat and Power	
Fuel	**Natural Gas**
Performance Rated Output (%)	100
Heat Output (kW)	654
Thermal Efficiency (%)	44
Electrical Efficiency (%)	40
Performance Minimum Output (%)	50
Thermal Efficiency (%)	48
Electrical Efficiency (%)	36.5
Profile	On Continuously

Allow maintenance downtime	1 day per 6 months

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Building Element	**U-value**	
External Wall	0.20	(W/m2K)
Ground Floor	0.20	(W/m2K)
Roof	0.15	(W/m2K)
Window	1.60	(W/m2K)
Rooflight	2.00	(W/m2K)

G-value Window	North 0.64
G-value Window	West/South/East 0.50 (maximum)
Window Daylight Transmission	0.76 (minimum)

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

External Lighting Load estimated to be 20,000W

Date	Time	Solar altitude (deg.) EdinburghTRY05.fwt EdinburghTRY05.fwt		External Lighting (W)		Date	Time	Solar altitude (deg.) EdinburghDSY05.fwt EdinburghDSY05.fwt		External Lighting (W)	
Mon, 01/Jan	00:30	0	0	20000	0	Mon, 01/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.5	1	20000	20000		11:30	10.5	1	20000	20000
	12:30	11.1	1	20000	20000		12:30	11.1	1	20000	20000
	13:30	9.6	1	20000	20000		13:30	9.6	1	20000	20000
	14:30	6.2	1	20000	20000		14:30	6.2	1	20000	20000
	15:30	1.2	1	20000	20000		15:30	1.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 02/Jan	00:30	0	0	20000	0	Tue, 02/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.6	1	20000	20000		11:30	10.6	1	20000	20000
	12:30	11.2	1	20000	20000		12:30	11.2	1	20000	20000
	13:30	9.7	1	20000	20000		13:30	9.7	1	20000	20000
	14:30	6.4	1	20000	20000		14:30	6.4	1	20000	20000
	15:30	1.3	1	20000	20000		15:30	1.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 03/Jan	00:30	0	0	20000	0	Wed, 03/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.7	1	20000	20000		09:30	3.7	1	20000	20000
	10:30	8.1	1	20000	20000		10:30	8.1	1	20000	20000
	11:30	10.7	1	20000	20000		11:30	10.7	1	20000	20000
	12:30	11.3	1	20000	20000		12:30	11.3	1	20000	20000
	13:30	9.8	1	20000	20000		13:30	9.8	1	20000	20000
	14:30	6.5	1	20000	20000		14:30	6.5	1	20000	20000
	15:30	1.4	1	20000	20000		15:30	1.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 04/Jan	00:30	0	0	20000	0	Thu, 04/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.7	1	20000	20000		09:30	3.7	1	20000	20000
	10:30	8.1	1	20000	20000		10:30	8.1	1	20000	20000
	11:30	10.8	1	20000	20000		11:30	10.8	1	20000	20000
	12:30	11.4	1	20000	20000		12:30	11.4	1	20000	20000
	13:30	9.9	1	20000	20000		13:30	9.9	1	20000	20000
	14:30	6.6	1	20000	20000		14:30	6.6	1	20000	20000
	15:30	1.6	1	20000	20000		15:30	1.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 05/Jan	00:30	0	0	20000	0	Fri, 05/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	8.2	1	20000	20000		10:30	8.2	1	20000	20000
	11:30	10.8	1	20000	20000		11:30	10.8	1	20000	20000
	12:30	11.5	1	20000	20000		12:30	11.5	1	20000	20000
	13:30	10.1	1	20000	20000		13:30	10.1	1	20000	20000
	14:30	6.7	1	20000	20000		14:30	6.7	1	20000	20000
	15:30	1.7	1	20000	20000		15:30	1.7	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 06/Jan	00:30	0	0	20000	0	Sat, 06/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0

	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	8.3	1	20000	20000		10:30	8.3	1	20000	20000
	11:30	10.9	1	20000	20000		11:30	10.9	1	20000	20000
	12:30	11.6	1	20000	20000		12:30	11.6	1	20000	20000
	13:30	10.2	1	20000	20000		13:30	10.2	1	20000	20000
	14:30	6.9	1	20000	20000		14:30	6.9	1	20000	20000
	15:30	1.8	1	20000	20000		15:30	1.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 07/Jan	00:30	0	0	20000	0	Sun, 07/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.9	1	20000	20000		09:30	3.9	1	20000	20000
	10:30	8.4	1	20000	20000		10:30	8.4	1	20000	20000
	11:30	11	1	20000	20000		11:30	11	1	20000	20000
	12:30	11.7	1	20000	20000		12:30	11.7	1	20000	20000
	13:30	10.3	1	20000	20000		13:30	10.3	1	20000	20000
	14:30	7	1	20000	20000		14:30	7	1	20000	20000
	15:30	2	1	20000	20000		15:30	2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 08/Jan	00:30	0	0	20000	0	Mon, 08/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4	1	20000	20000		09:30	4	1	20000	20000
	10:30	8.5	1	20000	20000		10:30	8.5	1	20000	20000
	11:30	11.2	1	20000	20000		11:30	11.2	1	20000	20000
	12:30	11.8	1	20000	20000		12:30	11.8	1	20000	20000
	13:30	10.5	1	20000	20000		13:30	10.5	1	20000	20000
	14:30	7.1	1	20000	20000		14:30	7.1	1	20000	20000
	15:30	2.1	1	20000	20000		15:30	2.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 09/Jan	00:30	0	0	20000	0	Tue, 09/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.1	1	20000	20000		09:30	4.1	1	20000	20000
	10:30	8.6	1	20000	20000		10:30	8.6	1	20000	20000
	11:30	11.3	1	20000	20000		11:30	11.3	1	20000	20000
	12:30	12	1	20000	20000		12:30	12	1	20000	20000
	13:30	10.6	1	20000	20000		13:30	10.6	1	20000	20000
	14:30	7.3	1	20000	20000		14:30	7.3	1	20000	20000
	15:30	2.3	1	20000	20000		15:30	2.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 10/Jan	00:30	0	0	20000	0	Wed, 10/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.2	1	20000	20000		09:30	4.2	1	20000	20000
	10:30	8.7	1	20000	20000		10:30	8.7	1	20000	20000
	11:30	11.4	1	20000	20000		11:30	11.4	1	20000	20000
	12:30	12.1	1	20000	20000		12:30	12.1	1	20000	20000
	13:30	10.8	1	20000	20000		13:30	10.8	1	20000	20000
	14:30	7.5	1	20000	20000		14:30	7.5	1	20000	20000
	15:30	2.5	1	20000	20000		15:30	2.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 11/Jan	00:30	0	0	20000	0	Thu, 11/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.3	1	20000	20000		09:30	4.3	1	20000	20000
	10:30	8.8	1	20000	20000		10:30	8.8	1	20000	20000
	11:30	11.5	1	20000	20000		11:30	11.5	1	20000	20000
	12:30	12.3	1	20000	20000		12:30	12.3	1	20000	20000
	13:30	10.9	1	20000	20000		13:30	10.9	1	20000	20000
	14:30	7.6	1	20000	20000		14:30	7.6	1	20000	20000
	15:30	2.6	1	20000	20000		15:30	2.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0

	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 12/Jan	00:30	0	0	20000	0	Fri, 12/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.4	1	20000	20000		09:30	4.4	1	20000	20000
	10:30	8.9	1	20000	20000		10:30	8.9	1	20000	20000
	11:30	11.7	1	20000	20000		11:30	11.7	1	20000	20000
	12:30	12.4	1	20000	20000		12:30	12.4	1	20000	20000
	13:30	11.1	1	20000	20000		13:30	11.1	1	20000	20000
	14:30	7.8	1	20000	20000		14:30	7.8	1	20000	20000
	15:30	2.8	1	20000	20000		15:30	2.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 13/Jan	00:30	0	0	20000	0	Sat, 13/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.5	1	20000	20000		09:30	4.5	1	20000	20000
	10:30	9.1	1	20000	20000		10:30	9.1	1	20000	20000
	11:30	11.8	1	20000	20000		11:30	11.8	1	20000	20000
	12:30	12.6	1	20000	20000		12:30	12.6	1	20000	20000
	13:30	11.3	1	20000	20000		13:30	11.3	1	20000	20000
	14:30	8	1	20000	20000		14:30	8	1	20000	20000
	15:30	3	1	20000	20000		15:30	3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 14/Jan	00:30	0	0	20000	0	Sun, 14/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.6	1	20000	20000		09:30	4.6	1	20000	20000
	10:30	9.2	1	20000	20000		10:30	9.2	1	20000	20000
	11:30	12	1	20000	20000		11:30	12	1	20000	20000
	12:30	12.8	1	20000	20000		12:30	12.8	1	20000	20000
	13:30	11.4	1	20000	20000		13:30	11.4	1	20000	20000
	14:30	8.2	1	20000	20000		14:30	8.2	1	20000	20000
	15:30	3.2	1	20000	20000		15:30	3.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 15/Jan	00:30	0	0	20000	0	Mon, 15/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.8	1	20000	20000		09:30	4.8	1	20000	20000
	10:30	9.3	1	20000	20000		10:30	9.3	1	20000	20000
	11:30	12.1	1	20000	20000		11:30	12.1	1	20000	20000
	12:30	12.9	1	20000	20000		12:30	12.9	1	20000	20000
	13:30	11.6	1	20000	20000		13:30	11.6	1	20000	20000
	14:30	8.4	1	20000	20000		14:30	8.4	1	20000	20000
	15:30	3.4	1	20000	20000		15:30	3.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 16/Jan	00:30	0	0	20000	0	Tue, 16/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.9	1	20000	20000		09:30	4.9	1	20000	20000
	10:30	9.5	1	20000	20000		10:30	9.5	1	20000	20000
	11:30	12.3	1	20000	20000		11:30	12.3	1	20000	20000
	12:30	13.1	1	20000	20000		12:30	13.1	1	20000	20000
	13:30	11.8	1	20000	20000		13:30	11.8	1	20000	20000
	14:30	8.5	1	20000	20000		14:30	8.5	1	20000	20000
	15:30	3.6	1	20000	20000		15:30	3.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 17/Jan	00:30	0	0	20000	0	Wed, 17/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5	1	20000	20000		09:30	5	1	20000	20000
	10:30	9.7	1	20000	20000		10:30	9.7	1	20000	20000
	11:30	12.5	1	20000	20000		11:30	12.5	1	20000	20000
	12:30	13.3	1	20000	20000		12:30	13.3	1	20000	20000
	13:30	12	1	20000	20000		13:30	12	1	20000	20000
	14:30	8.8	1	20000	20000		14:30	8.8	1	20000	20000
	15:30	3.8	1	20000	20000		15:30	3.8	1	20000	20000

	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 18/Jan	00:30	0	0	20000	0	Thu, 18/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.2	1	20000	20000		09:30	5.2	1	20000	20000
	10:30	9.8	1	20000	20000		10:30	9.8	1	20000	20000
	11:30	12.7	1	20000	20000		11:30	12.7	1	20000	20000
	12:30	13.5	1	20000	20000		12:30	13.5	1	20000	20000
	13:30	12.2	1	20000	20000		13:30	12.2	1	20000	20000
	14:30	9	1	20000	20000		14:30	9	1	20000	20000
	15:30	4	1	20000	20000		15:30	4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 19/Jan	00:30	0	0	20000	0	Fri, 19/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.3	1	20000	20000		09:30	5.3	1	20000	20000
	10:30	10	1	20000	20000		10:30	10	1	20000	20000
	11:30	12.9	1	20000	20000		11:30	12.9	1	20000	20000
	12:30	13.7	1	20000	20000		12:30	13.7	1	20000	20000
	13:30	12.4	1	20000	20000		13:30	12.4	1	20000	20000
	14:30	9.2	1	20000	20000		14:30	9.2	1	20000	20000
	15:30	4.2	1	20000	20000		15:30	4.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 20/Jan	00:30	0	0	20000	0	Sat, 20/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.5	1	20000	20000		09:30	5.5	1	20000	20000
	10:30	10.2	1	20000	20000		10:30	10.2	1	20000	20000
	11:30	13.1	1	20000	20000		11:30	13.1	1	20000	20000
	12:30	13.9	1	20000	20000		12:30	13.9	1	20000	20000
	13:30	12.7	1	20000	20000		13:30	12.7	1	20000	20000
	14:30	9.4	1	20000	20000		14:30	9.4	1	20000	20000
	15:30	4.4	1	20000	20000		15:30	4.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 21/Jan	00:30	0	0	20000	0	Sun, 21/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.7	1	20000	20000		09:30	5.7	1	20000	20000
	10:30	10.4	1	20000	20000		10:30	10.4	1	20000	20000
	11:30	13.3	1	20000	20000		11:30	13.3	1	20000	20000
	12:30	14.1	1	20000	20000		12:30	14.1	1	20000	20000
	13:30	12.9	1	20000	20000		13:30	12.9	1	20000	20000
	14:30	9.6	1	20000	20000		14:30	9.6	1	20000	20000
	15:30	4.6	1	20000	20000		15:30	4.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 22/Jan	00:30	0	0	20000	0	Mon, 22/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.9	1	20000	20000		09:30	5.9	1	20000	20000
	10:30	10.6	1	20000	20000		10:30	10.6	1	20000	20000
	11:30	13.5	1	20000	20000		11:30	13.5	1	20000	20000
	12:30	14.3	1	20000	20000		12:30	14.3	1	20000	20000
	13:30	13.1	1	20000	20000		13:30	13.1	1	20000	20000
	14:30	9.9	1	20000	20000		14:30	9.9	1	20000	20000
	15:30	4.9	1	20000	20000		15:30	4.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 23/Jan	00:30	0	0	20000	0	Tue, 23/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0

	09:30	6	1	20000	20000		09:30	6	1	20000	20000
	10:30	10.8	1	20000	20000		10:30	10.8	1	20000	20000
	11:30	13.7	1	20000	20000		11:30	13.7	1	20000	20000
	12:30	14.6	1	20000	20000		12:30	14.6	1	20000	20000
	13:30	13.3	1	20000	20000		13:30	13.3	1	20000	20000
	14:30	10.1	1	20000	20000		14:30	10.1	1	20000	20000
	15:30	5.1	1	20000	20000		15:30	5.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 24/Jan	00:30	0	0	20000	0	Wed, 24/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	6.2	1	20000	20000		09:30	6.2	1	20000	20000
	10:30	11	1	20000	20000		10:30	11	1	20000	20000
	11:30	13.9	1	20000	20000		11:30	13.9	1	20000	20000
	12:30	14.8	1	20000	20000		12:30	14.8	1	20000	20000
	13:30	13.6	1	20000	20000		13:30	13.6	1	20000	20000
	14:30	10.3	1	20000	20000		14:30	10.3	1	20000	20000
	15:30	5.3	1	20000	20000		15:30	5.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 25/Jan	00:30	0	0	20000	0	Thu, 25/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.2	1	20000	20000		08:30	0.2	1	20000	20000
	09:30	6.4	1	20000	20000		09:30	6.4	1	20000	20000
	10:30	11.2	1	20000	20000		10:30	11.2	1	20000	20000
	11:30	14.1	1	20000	20000		11:30	14.1	1	20000	20000
	12:30	15	1	20000	20000		12:30	15	1	20000	20000
	13:30	13.8	1	20000	20000		13:30	13.8	1	20000	20000
	14:30	10.6	1	20000	20000		14:30	10.6	1	20000	20000
	15:30	5.6	1	20000	20000		15:30	5.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 26/Jan	00:30	0	0	20000	0	Fri, 26/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.4	1	20000	20000		08:30	0.4	1	20000	20000
	09:30	6.6	1	20000	20000		09:30	6.6	1	20000	20000
	10:30	11.4	1	20000	20000		10:30	11.4	1	20000	20000
	11:30	14.4	1	20000	20000		11:30	14.4	1	20000	20000
	12:30	15.3	1	20000	20000		12:30	15.3	1	20000	20000
	13:30	14.1	1	20000	20000		13:30	14.1	1	20000	20000
	14:30	10.8	1	20000	20000		14:30	10.8	1	20000	20000
	15:30	5.8	1	20000	20000		15:30	5.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 27/Jan	00:30	0	0	20000	0	Sat, 27/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.6	1	20000	20000		08:30	0.6	1	20000	20000
	09:30	6.8	1	20000	20000		09:30	6.8	1	20000	20000
	10:30	11.6	1	20000	20000		10:30	11.6	1	20000	20000
	11:30	14.6	1	20000	20000		11:30	14.6	1	20000	20000
	12:30	15.5	1	20000	20000		12:30	15.5	1	20000	20000
	13:30	14.3	1	20000	20000		13:30	14.3	1	20000	20000
	14:30	11.1	1	20000	20000		14:30	11.1	1	20000	20000
	15:30	6.1	1	20000	20000		15:30	6.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 28/Jan	00:30	0	0	20000	0	Sun, 28/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.8	1	20000	20000		08:30	0.8	1	20000	20000
	09:30	7.1	1	20000	20000		09:30	7.1	1	20000	20000
	10:30	11.9	1	20000	20000		10:30	11.9	1	20000	20000
	11:30	14.9	1	20000	20000		11:30	14.9	1	20000	20000
	12:30	15.8	1	20000	20000		12:30	15.8	1	20000	20000
	13:30	14.6	1	20000	20000		13:30	14.6	1	20000	20000
	14:30	11.3	1	20000	20000		14:30	11.3	1	20000	20000
	15:30	6.3	1	20000	20000		15:30	6.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 29/Jan	00:30	0	0	20000	0	Mon, 29/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0

	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1	1	20000	20000		08:30	1	1	20000	20000
	09:30	7.3	1	20000	20000		09:30	7.3	1	20000	20000
	10:30	12.1	1	20000	20000		10:30	12.1	1	20000	20000
	11:30	15.1	1	20000	20000		11:30	15.1	1	20000	20000
	12:30	16.1	1	20000	20000		12:30	16.1	1	20000	20000
	13:30	14.9	1	20000	20000		13:30	14.9	1	20000	20000
	14:30	11.6	1	20000	20000		14:30	11.6	1	20000	20000
	15:30	6.6	1	20000	20000		15:30	6.6	1	20000	20000
	16:30	0.2	1	20000	20000		16:30	0.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 30/Jan	00:30	0	0	20000	0	Tue, 30/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.2	1	20000	20000		08:30	1.2	1	20000	20000
	09:30	7.5	1	20000	20000		09:30	7.5	1	20000	20000
	10:30	12.3	1	20000	20000		10:30	12.3	1	20000	20000
	11:30	15.4	1	20000	20000		11:30	15.4	1	20000	20000
	12:30	16.3	1	20000	20000		12:30	16.3	1	20000	20000
	13:30	15.1	1	20000	20000		13:30	15.1	1	20000	20000
	14:30	11.9	1	20000	20000		14:30	11.9	1	20000	20000
	15:30	6.9	1	20000	20000		15:30	6.9	1	20000	20000
	16:30	0.4	1	20000	20000		16:30	0.4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 31/Jan	00:30	0	0	20000	0	Wed, 31/Jan	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.5	1	20000	20000		08:30	1.5	1	20000	20000
	09:30	7.7	1	20000	20000		09:30	7.7	1	20000	20000
	10:30	12.6	1	20000	20000		10:30	12.6	1	20000	20000
	11:30	15.6	1	20000	20000		11:30	15.6	1	20000	20000
	12:30	16.6	1	20000	20000		12:30	16.6	1	20000	20000
	13:30	15.4	1	20000	20000		13:30	15.4	1	20000	20000
	14:30	12.2	1	20000	20000		14:30	12.2	1	20000	20000
	15:30	7.1	1	20000	20000		15:30	7.1	1	20000	20000
	16:30	0.7	1	20000	20000		16:30	0.7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 01/Feb	00:30	0	0	20000	0	Thu, 01/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.7	1	20000	20000		08:30	1.7	1	20000	20000
	09:30	8	1	20000	20000		09:30	8	1	20000	20000
	10:30	12.9	1	20000	20000		10:30	12.9	1	20000	20000
	11:30	15.9	1	20000	20000		11:30	15.9	1	20000	20000
	12:30	16.9	1	20000	20000		12:30	16.9	1	20000	20000
	13:30	15.7	1	20000	20000		13:30	15.7	1	20000	20000
	14:30	12.4	1	20000	20000		14:30	12.4	1	20000	20000
	15:30	7.4	1	20000	20000		15:30	7.4	1	20000	20000
	16:30	1	1	20000	20000		16:30	1	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 02/Feb	00:30	0	0	20000	0	Fri, 02/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.9	1	20000	20000		08:30	1.9	1	20000	20000
	09:30	8.2	1	20000	20000		09:30	8.2	1	20000	20000
	10:30	13.1	1	20000	20000		10:30	13.1	1	20000	20000
	11:30	16.2	1	20000	20000		11:30	16.2	1	20000	20000
	12:30	17.2	1	20000	20000		12:30	17.2	1	20000	20000
	13:30	16	1	20000	20000		13:30	16	1	20000	20000
	14:30	12.7	1	20000	20000		14:30	12.7	1	20000	20000
	15:30	7.7	1	20000	20000		15:30	7.7	1	20000	20000
	16:30	1.2	1	20000	20000		16:30	1.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 03/Feb	00:30	0	0	20000	0	Sat, 03/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.1	1	20000	20000		08:30	2.1	1	20000	20000
	09:30	8.5	1	20000	20000		09:30	8.5	1	20000	20000
	10:30	13.4	1	20000	20000		10:30	13.4	1	20000	20000
	11:30	16.5	1	20000	20000		11:30	16.5	1	20000	20000
	12:30	17.5	1	20000	20000		12:30	17.5	1	20000	20000
	13:30	16.3	1	20000	20000		13:30	16.3	1	20000	20000
	14:30	13	1	20000	20000		14:30	13	1	20000	20000
	15:30	7.9	1	20000	20000		15:30	7.9	1	20000	20000
	16:30	1.5	1	20000	20000		16:30	1.5	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0

	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 04/Feb	00:30	0	0	20000	0	Sun, 04/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.4	1	20000	20000		08:30	2.4	1	20000	20000
	09:30	8.7	1	20000	20000		09:30	8.7	1	20000	20000
	10:30	13.7	1	20000	20000		10:30	13.7	1	20000	20000
	11:30	16.8	1	20000	20000		11:30	16.8	1	20000	20000
	12:30	17.8	1	20000	20000		12:30	17.8	1	20000	20000
	13:30	16.6	1	20000	20000		13:30	16.6	1	20000	20000
	14:30	13.3	1	20000	20000		14:30	13.3	1	20000	20000
	15:30	8.2	1	20000	20000		15:30	8.2	1	20000	20000
	16:30	1.8	1	20000	20000		16:30	1.8	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 05/Feb	00:30	0	0	20000	0	Mon, 05/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.6	1	20000	20000		08:30	2.6	1	20000	20000
	09:30	9	1	20000	20000		09:30	9	1	20000	20000
	10:30	13.9	1	20000	20000		10:30	13.9	1	20000	20000
	11:30	17	1	20000	20000		11:30	17	1	20000	20000
	12:30	18.1	1	20000	20000		12:30	18.1	1	20000	20000
	13:30	16.9	1	20000	20000		13:30	16.9	1	20000	20000
	14:30	13.6	1	20000	20000		14:30	13.6	1	20000	20000
	15:30	8.5	1	20000	20000		15:30	8.5	1	20000	20000
	16:30	2	1	20000	20000		16:30	2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 06/Feb	00:30	0	0	20000	0	Tue, 06/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.9	1	20000	20000		08:30	2.9	1	20000	20000
	09:30	9.3	1	20000	20000		09:30	9.3	1	20000	20000
	10:30	14.2	1	20000	20000		10:30	14.2	1	20000	20000
	11:30	17.3	1	20000	20000		11:30	17.3	1	20000	20000
	12:30	18.4	1	20000	20000		12:30	18.4	1	20000	20000
	13:30	17.2	1	20000	20000		13:30	17.2	1	20000	20000
	14:30	13.9	1	20000	20000		14:30	13.9	1	20000	20000
	15:30	8.8	1	20000	20000		15:30	8.8	1	20000	20000
	16:30	2.3	1	20000	20000		16:30	2.3	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 07/Feb	00:30	0	0	20000	0	Wed, 07/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.1	1	20000	20000		08:30	3.1	1	20000	20000
	09:30	9.5	1	20000	20000		09:30	9.5	1	20000	20000
	10:30	14.5	1	20000	20000		10:30	14.5	1	20000	20000
	11:30	17.6	1	20000	20000		11:30	17.6	1	20000	20000
	12:30	18.7	1	20000	20000		12:30	18.7	1	20000	20000
	13:30	17.5	1	20000	20000		13:30	17.5	1	20000	20000
	14:30	14.2	1	20000	20000		14:30	14.2	1	20000	20000
	15:30	9.1	1	20000	20000		15:30	9.1	1	20000	20000
	16:30	2.6	1	20000	20000		16:30	2.6	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 08/Feb	00:30	0	0	20000	0	Thu, 08/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.4	1	20000	20000		08:30	3.4	1	20000	20000
	09:30	9.8	1	20000	20000		09:30	9.8	1	20000	20000
	10:30	14.8	1	20000	20000		10:30	14.8	1	20000	20000
	11:30	17.9	1	20000	20000		11:30	17.9	1	20000	20000
	12:30	19	1	20000	20000		12:30	19	1	20000	20000
	13:30	17.8	1	20000	20000		13:30	17.8	1	20000	20000
	14:30	14.5	1	20000	20000		14:30	14.5	1	20000	20000
	15:30	9.4	1	20000	20000		15:30	9.4	1	20000	20000
	16:30	2.9	1	20000	20000		16:30	2.9	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 09/Feb	00:30	0	0	20000	0	Fri, 09/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.7	1	20000	20000		08:30	3.7	1	20000	20000
	09:30	10.1	1	20000	20000		09:30	10.1	1	20000	20000
	10:30	15.1	1	20000	20000		10:30	15.1	1	20000	20000
	11:30	18.3	1	20000	20000		11:30	18.3	1	20000	20000

	12:30	19.3	1	20000	20000		12:30	19.3	1	20000	20000
	13:30	18.1	1	20000	20000		13:30	18.1	1	20000	20000
	14:30	14.8	1	20000	20000		14:30	14.8	1	20000	20000
	15:30	9.7	1	20000	20000		15:30	9.7	1	20000	20000
	16:30	3.2	1	20000	20000		16:30	3.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 10/Feb	00:30	0	0	20000	0	Sat, 10/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4	1	20000	20000		08:30	4	1	20000	20000
	09:30	10.4	1	20000	20000		09:30	10.4	1	20000	20000
	10:30	15.4	1	20000	20000		10:30	15.4	1	20000	20000
	11:30	18.6	1	20000	20000		11:30	18.6	1	20000	20000
	12:30	19.6	1	20000	20000		12:30	19.6	1	20000	20000
	13:30	18.4	1	20000	20000		13:30	18.4	1	20000	20000
	14:30	15.1	1	20000	20000		14:30	15.1	1	20000	20000
	15:30	10	1	20000	20000		15:30	10	1	20000	20000
	16:30	3.4	1	20000	20000		16:30	3.4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 11/Feb	00:30	0	0	20000	0	Sun, 11/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.2	1	20000	20000		08:30	4.2	1	20000	20000
	09:30	10.7	1	20000	20000		09:30	10.7	1	20000	20000
	10:30	15.7	1	20000	20000		10:30	15.7	1	20000	20000
	11:30	18.9	1	20000	20000		11:30	18.9	1	20000	20000
	12:30	19.9	1	20000	20000		12:30	19.9	1	20000	20000
	13:30	18.7	1	20000	20000		13:30	18.7	1	20000	20000
	14:30	15.4	1	20000	20000		14:30	15.4	1	20000	20000
	15:30	10.3	1	20000	20000		15:30	10.3	1	20000	20000
	16:30	3.7	1	20000	20000		16:30	3.7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 12/Feb	00:30	0	0	20000	0	Mon, 12/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.5	1	20000	20000		08:30	4.5	1	20000	20000
	09:30	11	1	20000	20000		09:30	11	1	20000	20000
	10:30	16	1	20000	20000		10:30	16	1	20000	20000
	11:30	19.2	1	20000	20000		11:30	19.2	1	20000	20000
	12:30	20.3	1	20000	20000		12:30	20.3	1	20000	20000
	13:30	19.1	1	20000	20000		13:30	19.1	1	20000	20000
	14:30	15.7	1	20000	20000		14:30	15.7	1	20000	20000
	15:30	10.6	1	20000	20000		15:30	10.6	1	20000	20000
	16:30	4	1	20000	20000		16:30	4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 13/Feb	00:30	0	0	20000	0	Tue, 13/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.8	1	20000	20000		08:30	4.8	1	20000	20000
	09:30	11.3	1	20000	20000		09:30	11.3	1	20000	20000
	10:30	16.3	1	20000	20000		10:30	16.3	1	20000	20000
	11:30	19.5	1	20000	20000		11:30	19.5	1	20000	20000
	12:30	20.6	1	20000	20000		12:30	20.6	1	20000	20000
	13:30	19.4	1	20000	20000		13:30	19.4	1	20000	20000
	14:30	16	1	20000	20000		14:30	16	1	20000	20000
	15:30	10.9	1	20000	20000		15:30	10.9	1	20000	20000
	16:30	4.3	1	20000	20000		16:30	4.3	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 14/Feb	00:30	0	0	20000	0	Wed, 14/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.1	1	20000	20000		08:30	5.1	1	20000	20000
	09:30	11.6	1	20000	20000		09:30	11.6	1	20000	20000
	10:30	16.7	1	20000	20000		10:30	16.7	1	20000	20000
	11:30	19.9	1	20000	20000		11:30	19.9	1	20000	20000
	12:30	20.9	1	20000	20000		12:30	20.9	1	20000	20000
	13:30	19.7	1	20000	20000		13:30	19.7	1	20000	20000
	14:30	16.4	1	20000	20000		14:30	16.4	1	20000	20000
	15:30	11.2	1	20000	20000		15:30	11.2	1	20000	20000
	16:30	4.6	1	20000	20000		16:30	4.6	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 15/Feb	00:30	0	0	20000	0	Thu, 15/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0

	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.4	1	20000	20000		08:30	5.4	1	20000	20000
	09:30	11.9	1	20000	20000		09:30	11.9	1	20000	20000
	10:30	17	1	20000	20000		10:30	17	1	20000	20000
	11:30	20.2	1	20000	20000		11:30	20.2	1	20000	20000
	12:30	21.3	1	20000	20000		12:30	21.3	1	20000	20000
	13:30	20.1	1	20000	20000		13:30	20.1	1	20000	20000
	14:30	16.7	1	20000	20000		14:30	16.7	1	20000	20000
	15:30	11.5	1	20000	20000		15:30	11.5	1	20000	20000
	16:30	4.9	1	20000	20000		16:30	4.9	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 16/Feb	00:30	0	0	20000	0	Fri, 16/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.7	1	20000	20000		08:30	5.7	1	20000	20000
	09:30	12.2	1	20000	20000		09:30	12.2	1	20000	20000
	10:30	17.3	1	20000	20000		10:30	17.3	1	20000	20000
	11:30	20.6	1	20000	20000		11:30	20.6	1	20000	20000
	12:30	21.6	1	20000	20000		12:30	21.6	1	20000	20000
	13:30	20.4	1	20000	20000		13:30	20.4	1	20000	20000
	14:30	17	1	20000	20000		14:30	17	1	20000	20000
	15:30	11.8	1	20000	20000		15:30	11.8	1	20000	20000
	16:30	5.2	1	20000	20000		16:30	5.2	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 17/Feb	00:30	0	0	20000	0	Sat, 17/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6	1	20000	20000		08:30	6	1	20000	20000
	09:30	12.6	1	20000	20000		09:30	12.6	1	20000	20000
	10:30	17.7	1	20000	20000		10:30	17.7	1	20000	20000
	11:30	20.9	1	20000	20000		11:30	20.9	1	20000	20000
	12:30	22	1	20000	20000		12:30	22	1	20000	20000
	13:30	20.7	1	20000	20000		13:30	20.7	1	20000	20000
	14:30	17.3	1	20000	20000		14:30	17.3	1	20000	20000
	15:30	12.1	1	20000	20000		15:30	12.1	1	20000	20000
	16:30	5.5	1	20000	20000		16:30	5.5	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 18/Feb	00:30	0	0	20000	0	Sun, 18/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.3	1	20000	20000		08:30	6.3	1	20000	20000
	09:30	12.9	1	20000	20000		09:30	12.9	1	20000	20000
	10:30	18	1	20000	20000		10:30	18	1	20000	20000
	11:30	21.3	1	20000	20000		11:30	21.3	1	20000	20000
	12:30	22.3	1	20000	20000		12:30	22.3	1	20000	20000
	13:30	21.1	1	20000	20000		13:30	21.1	1	20000	20000
	14:30	17.7	1	20000	20000		14:30	17.7	1	20000	20000
	15:30	12.4	1	20000	20000		15:30	12.4	1	20000	20000
	16:30	5.8	1	20000	20000		16:30	5.8	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 19/Feb	00:30	0	0	20000	0	Mon, 19/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.6	1	20000	20000		08:30	6.6	1	20000	20000
	09:30	13.2	1	20000	20000		09:30	13.2	1	20000	20000
	10:30	18.3	1	20000	20000		10:30	18.3	1	20000	20000
	11:30	21.6	1	20000	20000		11:30	21.6	1	20000	20000
	12:30	22.7	1	20000	20000		12:30	22.7	1	20000	20000
	13:30	21.4	1	20000	20000		13:30	21.4	1	20000	20000
	14:30	18	1	20000	20000		14:30	18	1	20000	20000
	15:30	12.8	1	20000	20000		15:30	12.8	1	20000	20000
	16:30	6.1	1	20000	20000		16:30	6.1	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 20/Feb	00:30	0	0	20000	0	Tue, 20/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7	1	20000	20000		08:30	7	1	20000	20000
	09:30	13.5	1	20000	20000		09:30	13.5	1	20000	20000
	10:30	18.7	1	20000	20000		10:30	18.7	1	20000	20000
	11:30	22	1	20000	20000		11:30	22	1	20000	20000
	12:30	23	1	20000	20000		12:30	23	1	20000	20000
	13:30	21.8	1	20000	20000		13:30	21.8	1	20000	20000
	14:30	18.3	1	20000	20000		14:30	18.3	1	20000	20000
	15:30	13.1	1	20000	20000		15:30	13.1	1	20000	20000
	16:30	6.4	1	20000	20000		16:30	6.4	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0

	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 21/Feb	00:30	0	0	20000	0	Wed, 21/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.3	1	20000	20000		08:30	7.3	1	20000	20000
	09:30	13.9	1	20000	20000		09:30	13.9	1	20000	20000
	10:30	19	1	20000	20000		10:30	19	1	20000	20000
	11:30	22.3	1	20000	20000		11:30	22.3	1	20000	20000
	12:30	23.4	1	20000	20000		12:30	23.4	1	20000	20000
	13:30	22.1	1	20000	20000		13:30	22.1	1	20000	20000
	14:30	18.7	1	20000	20000		14:30	18.7	1	20000	20000
	15:30	13.4	1	20000	20000		15:30	13.4	1	20000	20000
	16:30	6.7	1	20000	20000		16:30	6.7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 22/Feb	00:30	0	0	20000	0	Thu, 22/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.6	1	20000	20000		08:30	7.6	1	20000	20000
	09:30	14.2	1	20000	20000		09:30	14.2	1	20000	20000
	10:30	19.4	1	20000	20000		10:30	19.4	1	20000	20000
	11:30	22.7	1	20000	20000		11:30	22.7	1	20000	20000
	12:30	23.7	1	20000	20000		12:30	23.7	1	20000	20000
	13:30	22.5	1	20000	20000		13:30	22.5	1	20000	20000
	14:30	19	1	20000	20000		14:30	19	1	20000	20000
	15:30	13.7	1	20000	20000		15:30	13.7	1	20000	20000
	16:30	7	1	20000	20000		16:30	7	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 23/Feb	00:30	0	0	20000	0	Fri, 23/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.3	1	20000	20000		07:30	0.3	1	20000	20000
	08:30	8	1	20000	20000		08:30	8	1	20000	20000
	09:30	14.6	1	20000	20000		09:30	14.6	1	20000	20000
	10:30	19.7	1	20000	20000		10:30	19.7	1	20000	20000
	11:30	23	1	20000	20000		11:30	23	1	20000	20000
	12:30	24.1	1	20000	20000		12:30	24.1	1	20000	20000
	13:30	22.8	1	20000	20000		13:30	22.8	1	20000	20000
	14:30	19.4	1	20000	20000		14:30	19.4	1	20000	20000
	15:30	14	1	20000	20000		15:30	14	1	20000	20000
	16:30	7.3	1	20000	20000		16:30	7.3	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 24/Feb	00:30	0	0	20000	0	Sat, 24/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.7	1	20000	20000		07:30	0.7	1	20000	20000
	08:30	8.3	1	20000	20000		08:30	8.3	1	20000	20000
	09:30	14.9	1	20000	20000		09:30	14.9	1	20000	20000
	10:30	20.1	1	20000	20000		10:30	20.1	1	20000	20000
	11:30	23.4	1	20000	20000		11:30	23.4	1	20000	20000
	12:30	24.5	1	20000	20000		12:30	24.5	1	20000	20000
	13:30	23.2	1	20000	20000		13:30	23.2	1	20000	20000
	14:30	19.7	1	20000	20000		14:30	19.7	1	20000	20000
	15:30	14.4	1	20000	20000		15:30	14.4	1	20000	20000
	16:30	7.6	1	20000	20000		16:30	7.6	1	20000	20000
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 25/Feb	00:30	0	0	20000	0	Sun, 25/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1	1	20000	20000		07:30	1	1	20000	20000
	08:30	8.6	1	20000	20000		08:30	8.6	1	20000	20000
	09:30	15.3	1	20000	20000		09:30	15.3	1	20000	20000
	10:30	20.5	1	20000	20000		10:30	20.5	1	20000	20000
	11:30	23.8	1	20000	20000		11:30	23.8	1	20000	20000
	12:30	24.8	1	20000	20000		12:30	24.8	1	20000	20000
	13:30	23.6	1	20000	20000		13:30	23.6	1	20000	20000
	14:30	20	1	20000	20000		14:30	20	1	20000	20000
	15:30	14.7	1	20000	20000		15:30	14.7	1	20000	20000
	16:30	7.9	1	20000	20000		16:30	7.9	1	20000	20000
	17:30	0.2	1	20000	20000		17:30	0.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 26/Feb	00:30	0	0	20000	0	Mon, 26/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.3	1	20000	20000		07:30	1.3	1	20000	20000
	08:30	9	1	20000	20000		08:30	9	1	20000	20000
	09:30	15.6	1	20000	20000		09:30	15.6	1	20000	20000
	10:30	20.8	1	20000	20000		10:30	20.8	1	20000	20000
	11:30	24.2	1	20000	20000		11:30	24.2	1	20000	20000
	12:30	25.2	1	20000	20000		12:30	25.2	1	20000	20000
	13:30	23.9	1	20000	20000		13:30	23.9	1	20000	20000
	14:30	20.4	1	20000	20000		14:30	20.4	1	20000	20000

	15:30	15	1	20000	20000		15:30	15	1	20000	20000
	16:30	8.2	1	20000	20000		16:30	8.2	1	20000	20000
	17:30	0.5	1	20000	20000		17:30	0.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 27/Feb	00:30	0	0	20000	0	Tue, 27/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.7	1	20000	20000		07:30	1.7	1	20000	20000
	08:30	9.3	1	20000	20000		08:30	9.3	1	20000	20000
	09:30	16	1	20000	20000		09:30	16	1	20000	20000
	10:30	21.2	1	20000	20000		10:30	21.2	1	20000	20000
	11:30	24.5	1	20000	20000		11:30	24.5	1	20000	20000
	12:30	25.6	1	20000	20000		12:30	25.6	1	20000	20000
	13:30	24.3	1	20000	20000		13:30	24.3	1	20000	20000
	14:30	20.7	1	20000	20000		14:30	20.7	1	20000	20000
	15:30	15.3	1	20000	20000		15:30	15.3	1	20000	20000
	16:30	8.5	1	20000	20000		16:30	8.5	1	20000	20000
	17:30	0.8	1	20000	20000		17:30	0.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 28/Feb	00:30	0	0	20000	0	Wed, 28/Feb	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2	1	20000	20000		07:30	2	1	20000	20000
	08:30	9.7	1	20000	20000		08:30	9.7	1	20000	20000
	09:30	16.3	1	20000	20000		09:30	16.3	1	20000	20000
	10:30	21.6	1	20000	20000		10:30	21.6	1	20000	20000
	11:30	24.9	1	20000	20000		11:30	24.9	1	20000	20000
	12:30	26	1	20000	20000		12:30	26	1	20000	20000
	13:30	24.6	1	20000	20000		13:30	24.6	1	20000	20000
	14:30	21.1	1	20000	20000		14:30	21.1	1	20000	20000
	15:30	15.6	1	20000	20000		15:30	15.6	1	20000	20000
	16:30	8.8	1	20000	20000		16:30	8.8	1	20000	20000
	17:30	1.1	1	20000	20000		17:30	1.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 01/Mar	00:30	0	0	20000	0	Thu, 01/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.3	1	20000	20000		07:30	2.3	1	20000	20000
	08:30	10	1	20000	20000		08:30	10	1	20000	20000
	09:30	16.7	1	20000	20000		09:30	16.7	1	20000	20000
	10:30	22	1	20000	20000		10:30	22	1	20000	20000
	11:30	25.3	1	20000	20000		11:30	25.3	1	20000	20000
	12:30	26.3	1	20000	20000		12:30	26.3	1	20000	20000
	13:30	25	1	20000	20000		13:30	25	1	20000	20000
	14:30	21.4	1	20000	20000		14:30	21.4	1	20000	20000
	15:30	16	1	20000	20000		15:30	16	1	20000	20000
	16:30	9.1	1	20000	20000		16:30	9.1	1	20000	20000
	17:30	1.4	1	20000	20000		17:30	1.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 02/Mar	00:30	0	0	20000	0	Fri, 02/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.7	1	20000	20000		07:30	2.7	1	20000	20000
	08:30	10.4	1	20000	20000		08:30	10.4	1	20000	20000
	09:30	17.1	1	20000	20000		09:30	17.1	1	20000	20000
	10:30	22.3	1	20000	20000		10:30	22.3	1	20000	20000
	11:30	25.7	1	20000	20000		11:30	25.7	1	20000	20000
	12:30	26.7	1	20000	20000		12:30	26.7	1	20000	20000
	13:30	25.4	1	20000	20000		13:30	25.4	1	20000	20000
	14:30	21.8	1	20000	20000		14:30	21.8	1	20000	20000
	15:30	16.3	1	20000	20000		15:30	16.3	1	20000	20000
	16:30	9.5	1	20000	20000		16:30	9.5	1	20000	20000
	17:30	1.7	1	20000	20000		17:30	1.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 03/Mar	00:30	0	0	20000	0	Sat, 03/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3	1	20000	20000		07:30	3	1	20000	20000
	08:30	10.7	1	20000	20000		08:30	10.7	1	20000	20000
	09:30	17.4	1	20000	20000		09:30	17.4	1	20000	20000
	10:30	22.7	1	20000	20000		10:30	22.7	1	20000	20000
	11:30	26.1	1	20000	20000		11:30	26.1	1	20000	20000
	12:30	27.1	1	20000	20000		12:30	27.1	1	20000	20000
	13:30	25.7	1	20000	20000		13:30	25.7	1	20000	20000
	14:30	22.1	1	20000	20000		14:30	22.1	1	20000	20000
	15:30	16.6	1	20000	20000		15:30	16.6	1	20000	20000
	16:30	9.8	1	20000	20000		16:30	9.8	1	20000	20000
	17:30	2	1	20000	20000		17:30	2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 04/Mar	00:30	0	0	20000	0	Sun, 04/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.4	1	20000	20000		07:30	3.4	1	20000	20000

	08:30	11.1	1	20000	20000		08:30	11.1	1	20000	20000
	09:30	17.8	1	20000	20000		09:30	17.8	1	20000	20000
	10:30	23.1	1	20000	20000		10:30	23.1	1	20000	20000
	11:30	26.4	1	20000	20000		11:30	26.4	1	20000	20000
	12:30	27.5	1	20000	20000		12:30	27.5	1	20000	20000
	13:30	26.1	1	20000	20000		13:30	26.1	1	20000	20000
	14:30	22.5	1	20000	20000		14:30	22.5	1	20000	20000
	15:30	17	1	20000	20000		15:30	17	1	20000	20000
	16:30	10.1	1	20000	20000		16:30	10.1	1	20000	20000
	17:30	2.3	1	20000	20000		17:30	2.3	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 05/Mar	00:30	0	0	20000	0	Mon, 05/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.7	1	20000	20000		07:30	3.7	1	20000	20000
	08:30	11.4	1	20000	20000		08:30	11.4	1	20000	20000
	09:30	18.2	1	20000	20000		09:30	18.2	1	20000	20000
	10:30	23.5	1	20000	20000		10:30	23.5	1	20000	20000
	11:30	26.8	1	20000	20000		11:30	26.8	1	20000	20000
	12:30	27.9	1	20000	20000		12:30	27.9	1	20000	20000
	13:30	26.5	1	20000	20000		13:30	26.5	1	20000	20000
	14:30	22.8	1	20000	20000		14:30	22.8	1	20000	20000
	15:30	17.3	1	20000	20000		15:30	17.3	1	20000	20000
	16:30	10.4	1	20000	20000		16:30	10.4	1	20000	20000
	17:30	2.6	1	20000	20000		17:30	2.6	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 06/Mar	00:30	0	0	20000	0	Tue, 06/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.1	1	20000	20000		07:30	4.1	1	20000	20000
	08:30	11.8	1	20000	20000		08:30	11.8	1	20000	20000
	09:30	18.6	1	20000	20000		09:30	18.6	1	20000	20000
	10:30	23.9	1	20000	20000		10:30	23.9	1	20000	20000
	11:30	27.2	1	20000	20000		11:30	27.2	1	20000	20000
	12:30	28.3	1	20000	20000		12:30	28.3	1	20000	20000
	13:30	26.9	1	20000	20000		13:30	26.9	1	20000	20000
	14:30	23.2	1	20000	20000		14:30	23.2	1	20000	20000
	15:30	17.6	1	20000	20000		15:30	17.6	1	20000	20000
	16:30	10.7	1	20000	20000		16:30	10.7	1	20000	20000
	17:30	2.9	1	20000	20000		17:30	2.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 07/Mar	00:30	0	0	20000	0	Wed, 07/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.5	1	20000	20000		07:30	4.5	1	20000	20000
	08:30	12.2	1	20000	20000		08:30	12.2	1	20000	20000
	09:30	18.9	1	20000	20000		09:30	18.9	1	20000	20000
	10:30	24.2	1	20000	20000		10:30	24.2	1	20000	20000
	11:30	27.6	1	20000	20000		11:30	27.6	1	20000	20000
	12:30	28.7	1	20000	20000		12:30	28.7	1	20000	20000
	13:30	27.2	1	20000	20000		13:30	27.2	1	20000	20000
	14:30	23.5	1	20000	20000		14:30	23.5	1	20000	20000
	15:30	17.9	1	20000	20000		15:30	17.9	1	20000	20000
	16:30	11	1	20000	20000		16:30	11	1	20000	20000
	17:30	3.2	1	20000	20000		17:30	3.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 08/Mar	00:30	0	0	20000	0	Thu, 08/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.8	1	20000	20000		07:30	4.8	1	20000	20000
	08:30	12.5	1	20000	20000		08:30	12.5	1	20000	20000
	09:30	19.3	1	20000	20000		09:30	19.3	1	20000	20000
	10:30	24.6	1	20000	20000		10:30	24.6	1	20000	20000
	11:30	28	1	20000	20000		11:30	28	1	20000	20000
	12:30	29	1	20000	20000		12:30	29	1	20000	20000
	13:30	27.6	1	20000	20000		13:30	27.6	1	20000	20000
	14:30	23.9	1	20000	20000		14:30	23.9	1	20000	20000
	15:30	18.3	1	20000	20000		15:30	18.3	1	20000	20000
	16:30	11.3	1	20000	20000		16:30	11.3	1	20000	20000
	17:30	3.5	1	20000	20000		17:30	3.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 09/Mar	00:30	0	0	20000	0	Fri, 09/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.2	1	20000	20000		07:30	5.2	1	20000	20000
	08:30	12.9	1	20000	20000		08:30	12.9	1	20000	20000
	09:30	19.7	1	20000	20000		09:30	19.7	1	20000	20000
	10:30	25	1	20000	20000		10:30	25	1	20000	20000
	11:30	28.4	1	20000	20000		11:30	28.4	1	20000	20000
	12:30	29.4	1	20000	20000		12:30	29.4	1	20000	20000
	13:30	28	1	20000	20000		13:30	28	1	20000	20000
	14:30	24.2	1	20000	20000		14:30	24.2	1	20000	20000
	15:30	18.6	1	20000	20000		15:30	18.6	1	20000	20000
	16:30	11.6	1	20000	20000		16:30	11.6	1	20000	20000
	17:30	3.7	1	20000	20000		17:30	3.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 10/Mar	00:30	0	0	20000	0	Sat, 10/Mar	00:30	0	0	20000	0

	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.5	1	20000	20000		07:30	5.5	1	20000	20000
	08:30	13.3	1	20000	20000		08:30	13.3	1	20000	20000
	09:30	20.1	1	20000	20000		09:30	20.1	1	20000	20000
	10:30	25.4	1	20000	20000		10:30	25.4	1	20000	20000
	11:30	28.8	1	20000	20000		11:30	28.8	1	20000	20000
	12:30	29.8	1	20000	20000		12:30	29.8	1	20000	20000
	13:30	28.3	1	20000	20000		13:30	28.3	1	20000	20000
	14:30	24.6	1	20000	20000		14:30	24.6	1	20000	20000
	15:30	18.9	1	20000	20000		15:30	18.9	1	20000	20000
	16:30	11.9	1	20000	20000		16:30	11.9	1	20000	20000
	17:30	4	1	20000	20000		17:30	4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 11/Mar	00:30	0	0	20000	0	Sun, 11/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.9	1	20000	20000		07:30	5.9	1	20000	20000
	08:30	13.7	1	20000	20000		08:30	13.7	1	20000	20000
	09:30	20.5	1	20000	20000		09:30	20.5	1	20000	20000
	10:30	25.8	1	20000	20000		10:30	25.8	1	20000	20000
	11:30	29.2	1	20000	20000		11:30	29.2	1	20000	20000
	12:30	30.2	1	20000	20000		12:30	30.2	1	20000	20000
	13:30	28.7	1	20000	20000		13:30	28.7	1	20000	20000
	14:30	24.9	1	20000	20000		14:30	24.9	1	20000	20000
	15:30	19.2	1	20000	20000		15:30	19.2	1	20000	20000
	16:30	12.2	1	20000	20000		16:30	12.2	1	20000	20000
	17:30	4.3	1	20000	20000		17:30	4.3	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 12/Mar	00:30	0	0	20000	0	Mon, 12/Mar	00:30	0	0	20000	0
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	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.3	1	20000	20000		07:30	6.3	1	20000	20000
	08:30	14	1	20000	20000		08:30	14	1	20000	20000
	09:30	20.8	1	20000	20000		09:30	20.8	1	20000	20000
	10:30	26.2	1	20000	20000		10:30	26.2	1	20000	20000
	11:30	29.6	1	20000	20000		11:30	29.6	1	20000	20000
	12:30	30.6	1	20000	20000		12:30	30.6	1	20000	20000
	13:30	29.1	1	20000	20000		13:30	29.1	1	20000	20000
	14:30	25.3	1	20000	20000		14:30	25.3	1	20000	20000
	15:30	19.6	1	20000	20000		15:30	19.6	1	20000	20000
	16:30	12.5	1	20000	20000		16:30	12.5	1	20000	20000
	17:30	4.6	1	20000	20000		17:30	4.6	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 13/Mar	00:30	0	0	20000	0	Tue, 13/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.6	1	20000	20000		07:30	6.6	1	20000	20000
	08:30	14.4	1	20000	20000		08:30	14.4	1	20000	20000
	09:30	21.2	1	20000	20000		09:30	21.2	1	20000	20000
	10:30	26.6	1	20000	20000		10:30	26.6	1	20000	20000
	11:30	30	1	20000	20000		11:30	30	1	20000	20000
	12:30	31	1	20000	20000		12:30	31	1	20000	20000
	13:30	29.5	1	20000	20000		13:30	29.5	1	20000	20000
	14:30	25.6	1	20000	20000		14:30	25.6	1	20000	20000
	15:30	19.9	1	20000	20000		15:30	19.9	1	20000	20000
	16:30	12.8	1	20000	20000		16:30	12.8	1	20000	20000
	17:30	4.9	1	20000	20000		17:30	4.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 14/Mar	00:30	0	0	20000	0	Wed, 14/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7	1	20000	20000		07:30	7	1	20000	20000
	08:30	14.8	1	20000	20000		08:30	14.8	1	20000	20000
	09:30	21.6	1	20000	20000		09:30	21.6	1	20000	20000
	10:30	27	1	20000	20000		10:30	27	1	20000	20000
	11:30	30.4	1	20000	20000		11:30	30.4	1	20000	20000
	12:30	31.4	1	20000	20000		12:30	31.4	1	20000	20000
	13:30	29.8	1	20000	20000		13:30	29.8	1	20000	20000
	14:30	26	1	20000	20000		14:30	26	1	20000	20000
	15:30	20.2	1	20000	20000		15:30	20.2	1	20000	20000
	16:30	13.1	1	20000	20000		16:30	13.1	1	20000	20000
	17:30	5.2	1	20000	20000		17:30	5.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 15/Mar	00:30	0	0	20000	0	Thu, 15/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.4	1	20000	20000		07:30	7.4	1	20000	20000
	08:30	15.2	1	20000	20000		08:30	15.2	1	20000	20000
	09:30	22	1	20000	20000		09:30	22	1	20000	20000
	10:30	27.4	1	20000	20000		10:30	27.4	1	20000	20000
	11:30	30.8	1	20000	20000		11:30	30.8	1	20000	20000
	12:30	31.8	1	20000	20000		12:30	31.8	1	20000	20000
	13:30	30.2	1	20000	20000		13:30	30.2	1	20000	20000
	14:30	26.3	1	20000	20000		14:30	26.3	1	20000	20000
	15:30	20.5	1	20000	20000		15:30	20.5	1	20000	20000
	16:30	13.4	1	20000	20000		16:30	13.4	1	20000	20000
	17:30	5.5	1	20000	20000		17:30	5.5	1	20000	20000

	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 16/Mar	00:30	0	0	20000	0	Fri, 16/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.8	1	20000	20000		07:30	7.8	1	20000	20000
	08:30	15.5	1	20000	20000		08:30	15.5	1	20000	20000
	09:30	22.4	1	20000	20000		09:30	22.4	1	20000	20000
	10:30	27.8	1	20000	20000		10:30	27.8	1	20000	20000
	11:30	31.2	1	20000	20000		11:30	31.2	1	20000	20000
	12:30	32.2	1	20000	20000		12:30	32.2	1	20000	20000
	13:30	30.6	1	20000	20000		13:30	30.6	1	20000	20000
	14:30	26.7	1	20000	20000		14:30	26.7	1	20000	20000
	15:30	20.9	1	20000	20000		15:30	20.9	1	20000	20000
	16:30	13.7	1	20000	20000		16:30	13.7	1	20000	20000
	17:30	5.8	1	20000	20000		17:30	5.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 17/Mar	00:30	0	0	20000	0	Sat, 17/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.1	1	20000	20000		07:30	8.1	1	20000	20000
	08:30	15.9	1	20000	20000		08:30	15.9	1	20000	20000
	09:30	22.8	1	20000	20000		09:30	22.8	1	20000	20000
	10:30	28.2	1	20000	20000		10:30	28.2	1	20000	20000
	11:30	31.6	1	20000	20000		11:30	31.6	1	20000	20000
	12:30	32.6	1	20000	20000		12:30	32.6	1	20000	20000
	13:30	31	1	20000	20000		13:30	31	1	20000	20000
	14:30	27	1	20000	20000		14:30	27	1	20000	20000
	15:30	21.2	1	20000	20000		15:30	21.2	1	20000	20000
	16:30	14	1	20000	20000		16:30	14	1	20000	20000
	17:30	6.1	1	20000	20000		17:30	6.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 18/Mar	00:30	0	0	20000	0	Sun, 18/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.2	1	20000	20000		06:30	0.2	1	20000	20000
	07:30	8.5	1	20000	20000		07:30	8.5	1	20000	20000
	08:30	16.3	1	20000	20000		08:30	16.3	1	20000	20000
	09:30	23.2	1	20000	20000		09:30	23.2	1	20000	20000
	10:30	28.6	1	20000	20000		10:30	28.6	1	20000	20000
	11:30	32	1	20000	20000		11:30	32	1	20000	20000
	12:30	33	1	20000	20000		12:30	33	1	20000	20000
	13:30	31.3	1	20000	20000		13:30	31.3	1	20000	20000
	14:30	27.4	1	20000	20000		14:30	27.4	1	20000	20000
	15:30	21.5	1	20000	20000		15:30	21.5	1	20000	20000
	16:30	14.3	1	20000	20000		16:30	14.3	1	20000	20000
	17:30	6.4	1	20000	20000		17:30	6.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 19/Mar	00:30	0	0	20000	0	Mon, 19/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.6	1	20000	20000		06:30	0.6	1	20000	20000
	07:30	8.9	1	20000	20000		07:30	8.9	1	20000	20000
	08:30	16.7	1	20000	20000		08:30	16.7	1	20000	20000
	09:30	23.6	1	20000	20000		09:30	23.6	1	20000	20000
	10:30	29	1	20000	20000		10:30	29	1	20000	20000
	11:30	32.4	1	20000	20000		11:30	32.4	1	20000	20000
	12:30	33.4	1	20000	20000		12:30	33.4	1	20000	20000
	13:30	31.7	1	20000	20000		13:30	31.7	1	20000	20000
	14:30	27.7	1	20000	20000		14:30	27.7	1	20000	20000
	15:30	21.8	1	20000	20000		15:30	21.8	1	20000	20000
	16:30	14.7	1	20000	20000		16:30	14.7	1	20000	20000
	17:30	6.7	1	20000	20000		17:30	6.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 20/Mar	00:30	0	0	20000	0	Tue, 20/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.9	1	20000	20000		06:30	0.9	1	20000	20000
	07:30	9.2	1	20000	20000		07:30	9.2	1	20000	20000
	08:30	17.1	1	20000	20000		08:30	17.1	1	20000	20000
	09:30	24	1	20000	20000		09:30	24	1	20000	20000
	10:30	29.4	1	20000	20000		10:30	29.4	1	20000	20000
	11:30	32.8	1	20000	20000		11:30	32.8	1	20000	20000
	12:30	33.7	1	20000	20000		12:30	33.7	1	20000	20000
	13:30	32.1	1	20000	20000		13:30	32.1	1	20000	20000
	14:30	28.1	1	20000	20000		14:30	28.1	1	20000	20000
	15:30	22.2	1	20000	20000		15:30	22.2	1	20000	20000
	16:30	15	1	20000	20000		16:30	15	1	20000	20000
	17:30	7	1	20000	20000		17:30	7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 21/Mar	00:30	0	0	20000	0	Wed, 21/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.3	1	20000	20000		06:30	1.3	1	20000	20000
	07:30	9.6	1	20000	20000		07:30	9.6	1	20000	20000
	08:30	17.4	1	20000	20000		08:30	17.4	1	20000	20000
	09:30	24.4	1	20000	20000		09:30	24.4	1	20000	20000
	10:30	29.8	1	20000	20000		10:30	29.8	1	20000	20000

	11:30	33.2	1	20000	20000		11:30	33.2	1	20000	20000
	12:30	34.1	1	20000	20000		12:30	34.1	1	20000	20000
	13:30	32.5	1	20000	20000		13:30	32.5	1	20000	20000
	14:30	28.4	1	20000	20000		14:30	28.4	1	20000	20000
	15:30	22.5	1	20000	20000		15:30	22.5	1	20000	20000
	16:30	15.3	1	20000	20000		16:30	15.3	1	20000	20000
	17:30	7.2	1	20000	20000		17:30	7.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 22/Mar	00:30	0	0	20000	0	Thu, 22/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.7	1	20000	20000		06:30	1.7	1	20000	20000
	07:30	10	1	20000	20000		07:30	10	1	20000	20000
	08:30	17.8	1	20000	20000		08:30	17.8	1	20000	20000
	09:30	24.7	1	20000	20000		09:30	24.7	1	20000	20000
	10:30	30.2	1	20000	20000		10:30	30.2	1	20000	20000
	11:30	33.6	1	20000	20000		11:30	33.6	1	20000	20000
	12:30	34.5	1	20000	20000		12:30	34.5	1	20000	20000
	13:30	32.8	1	20000	20000		13:30	32.8	1	20000	20000
	14:30	28.7	1	20000	20000		14:30	28.7	1	20000	20000
	15:30	22.8	1	20000	20000		15:30	22.8	1	20000	20000
	16:30	15.6	1	20000	20000		16:30	15.6	1	20000	20000
	17:30	7.5	1	20000	20000		17:30	7.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 23/Mar	00:30	0	0	20000	0	Fri, 23/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.1	1	20000	20000		06:30	2.1	1	20000	20000
	07:30	10.4	1	20000	20000		07:30	10.4	1	20000	20000
	08:30	18.2	1	20000	20000		08:30	18.2	1	20000	20000
	09:30	25.1	1	20000	20000		09:30	25.1	1	20000	20000
	10:30	30.6	1	20000	20000		10:30	30.6	1	20000	20000
	11:30	34	1	20000	20000		11:30	34	1	20000	20000
	12:30	34.9	1	20000	20000		12:30	34.9	1	20000	20000
	13:30	33.2	1	20000	20000		13:30	33.2	1	20000	20000
	14:30	29.1	1	20000	20000		14:30	29.1	1	20000	20000
	15:30	23.1	1	20000	20000		15:30	23.1	1	20000	20000
	16:30	15.8	1	20000	20000		16:30	15.8	1	20000	20000
	17:30	7.8	1	20000	20000		17:30	7.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 24/Mar	00:30	0	0	20000	0	Sat, 24/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.4	1	20000	20000		06:30	2.4	1	20000	20000
	07:30	10.7	1	20000	20000		07:30	10.7	1	20000	20000
	08:30	18.6	1	20000	20000		08:30	18.6	1	20000	20000
	09:30	25.5	1	20000	20000		09:30	25.5	1	20000	20000
	10:30	31	1	20000	20000		10:30	31	1	20000	20000
	11:30	34.4	1	20000	20000		11:30	34.4	1	20000	20000
	12:30	35.3	1	20000	20000		12:30	35.3	1	20000	20000
	13:30	33.6	1	20000	20000		13:30	33.6	1	20000	20000
	14:30	29.4	1	20000	20000		14:30	29.4	1	20000	20000
	15:30	23.4	1	20000	20000		15:30	23.4	1	20000	20000
	16:30	16.1	1	20000	20000		16:30	16.1	1	20000	20000
	17:30	8.1	1	20000	20000		17:30	8.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 25/Mar	00:30	0	0	20000	0	Sun, 25/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.8	1	20000	20000		06:30	2.8	1	20000	20000
	07:30	11.1	1	20000	20000		07:30	11.1	1	20000	20000
	08:30	19	1	20000	20000		08:30	19	1	20000	20000
	09:30	25.9	1	20000	20000		09:30	25.9	1	20000	20000
	10:30	31.4	1	20000	20000		10:30	31.4	1	20000	20000
	11:30	34.8	1	20000	20000		11:30	34.8	1	20000	20000
	12:30	35.7	1	20000	20000		12:30	35.7	1	20000	20000
	13:30	33.9	1	20000	20000		13:30	33.9	1	20000	20000
	14:30	29.8	1	20000	20000		14:30	29.8	1	20000	20000
	15:30	23.7	1	20000	20000		15:30	23.7	1	20000	20000
	16:30	16.4	1	20000	20000		16:30	16.4	1	20000	20000
	17:30	8.4	1	20000	20000		17:30	8.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 26/Mar	00:30	0	0	20000	0	Mon, 26/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.2	1	20000	20000		06:30	3.2	1	20000	20000
	07:30	11.5	1	20000	20000		07:30	11.5	1	20000	20000
	08:30	19.4	1	20000	20000		08:30	19.4	1	20000	20000
	09:30	26.3	1	20000	20000		09:30	26.3	1	20000	20000
	10:30	31.8	1	20000	20000		10:30	31.8	1	20000	20000
	11:30	35.2	1	20000	20000		11:30	35.2	1	20000	20000
	12:30	36.1	1	20000	20000		12:30	36.1	1	20000	20000
	13:30	34.3	1	20000	20000		13:30	34.3	1	20000	20000
	14:30	30.1	1	20000	20000		14:30	30.1	1	20000	20000
	15:30	24.1	1	20000	20000		15:30	24.1	1	20000	20000
	16:30	16.7	1	20000	20000		16:30	16.7	1	20000	20000
	17:30	8.7	1	20000	20000		17:30	8.7	1	20000	20000
	18:30	0.3	1	20000	20000		18:30	0.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 27/Mar	00:30	0	0	20000	0	Tue, 27/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0

	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.5	1	20000	20000		06:30	3.5	1	20000	20000
	07:30	11.9	1	20000	20000		07:30	11.9	1	20000	20000
	08:30	19.7	1	20000	20000		08:30	19.7	1	20000	20000
	09:30	26.7	1	20000	20000		09:30	26.7	1	20000	20000
	10:30	32.2	1	20000	20000		10:30	32.2	1	20000	20000
	11:30	35.6	1	20000	20000		11:30	35.6	1	20000	20000
	12:30	36.5	1	20000	20000		12:30	36.5	1	20000	20000
	13:30	34.7	1	20000	20000		13:30	34.7	1	20000	20000
	14:30	30.5	1	20000	20000		14:30	30.5	1	20000	20000
	15:30	24.4	1	20000	20000		15:30	24.4	1	20000	20000
	16:30	17	1	20000	20000		16:30	17	1	20000	20000
	17:30	8.9	1	20000	20000		17:30	8.9	1	20000	20000
	18:30	0.6	1	20000	20000		18:30	0.6	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 28/Mar	00:30	0	0	20000	0	Wed, 28/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.9	1	20000	20000		06:30	3.9	1	20000	20000
	07:30	12.2	1	20000	20000		07:30	12.2	1	20000	20000
	08:30	20.1	1	20000	20000		08:30	20.1	1	20000	20000
	09:30	27.1	1	20000	20000		09:30	27.1	1	20000	20000
	10:30	32.6	1	20000	20000		10:30	32.6	1	20000	20000
	11:30	36	1	20000	20000		11:30	36	1	20000	20000
	12:30	36.9	1	20000	20000		12:30	36.9	1	20000	20000
	13:30	35	1	20000	20000		13:30	35	1	20000	20000
	14:30	30.8	1	20000	20000		14:30	30.8	1	20000	20000
	15:30	24.7	1	20000	20000		15:30	24.7	1	20000	20000
	16:30	17.3	1	20000	20000		16:30	17.3	1	20000	20000
	17:30	9.2	1	20000	20000		17:30	9.2	1	20000	20000
	18:30	0.9	1	20000	20000		18:30	0.9	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 29/Mar	00:30	0	0	20000	0	Thu, 29/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.3	1	20000	20000		06:30	4.3	1	20000	20000
	07:30	12.6	1	20000	20000		07:30	12.6	1	20000	20000
	08:30	20.5	1	20000	20000		08:30	20.5	1	20000	20000
	09:30	27.5	1	20000	20000		09:30	27.5	1	20000	20000
	10:30	33	1	20000	20000		10:30	33	1	20000	20000
	11:30	36.4	1	20000	20000		11:30	36.4	1	20000	20000
	12:30	37.3	1	20000	20000		12:30	37.3	1	20000	20000
	13:30	35.4	1	20000	20000		13:30	35.4	1	20000	20000
	14:30	31.1	1	20000	20000		14:30	31.1	1	20000	20000
	15:30	25	1	20000	20000		15:30	25	1	20000	20000
	16:30	17.6	1	20000	20000		16:30	17.6	1	20000	20000
	17:30	9.5	1	20000	20000		17:30	9.5	1	20000	20000
	18:30	1.1	1	20000	20000		18:30	1.1	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 30/Mar	00:30	0	0	20000	0	Fri, 30/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.6	1	20000	20000		06:30	4.6	1	20000	20000
	07:30	13	1	20000	20000		07:30	13	1	20000	20000
	08:30	20.9	1	20000	20000		08:30	20.9	1	20000	20000
	09:30	27.9	1	20000	20000		09:30	27.9	1	20000	20000
	10:30	33.4	1	20000	20000		10:30	33.4	1	20000	20000
	11:30	36.8	1	20000	20000		11:30	36.8	1	20000	20000
	12:30	37.6	1	20000	20000		12:30	37.6	1	20000	20000
	13:30	35.8	1	20000	20000		13:30	35.8	1	20000	20000
	14:30	31.5	1	20000	20000		14:30	31.5	1	20000	20000
	15:30	25.3	1	20000	20000		15:30	25.3	1	20000	20000
	16:30	17.9	1	20000	20000		16:30	17.9	1	20000	20000
	17:30	9.8	1	20000	20000		17:30	9.8	1	20000	20000
	18:30	1.4	1	20000	20000		18:30	1.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 31/Mar	00:30	0	0	20000	0	Sat, 31/Mar	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5	1	20000	20000		06:30	5	1	20000	20000
	07:30	13.3	1	20000	20000		07:30	13.3	1	20000	20000
	08:30	21.2	1	20000	20000		08:30	21.2	1	20000	20000
	09:30	28.2	1	20000	20000		09:30	28.2	1	20000	20000
	10:30	33.8	1	20000	20000		10:30	33.8	1	20000	20000
	11:30	37.2	1	20000	20000		11:30	37.2	1	20000	20000
	12:30	38	1	20000	20000		12:30	38	1	20000	20000
	13:30	36.1	1	20000	20000		13:30	36.1	1	20000	20000
	14:30	31.8	1	20000	20000		14:30	31.8	1	20000	20000
	15:30	25.6	1	20000	20000		15:30	25.6	1	20000	20000
	16:30	18.2	1	20000	20000		16:30	18.2	1	20000	20000
	17:30	10.1	1	20000	20000		17:30	10.1	1	20000	20000
	18:30	1.7	1	20000	20000		18:30	1.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 01/Apr	00:30	0	0	20000	0	Sun, 01/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.4	1	20000	20000		07:30	5.4	1	20000	20000
	08:30	13.7	1	20000	20000		08:30	13.7	1	20000	20000
	09:30	21.6	1	20000	20000		09:30	21.6	1	20000	20000
	10:30	28.6	1	20000	20000		10:30	28.6	1	20000	20000
	11:30	34.2	1	20000	20000		11:30	34.2	1	20000	20000
	12:30	37.6	1	20000	20000		12:30	37.6	1	20000	20000
	13:30	38.4	1	20000	20000		13:30	38.4	1	20000	20000
	14:30	36.5	1	20000	20000		14:30	36.5	1	20000	20000
	15:30	32.1	1	20000	20000		15:30	32.1	1	20000	20000
	16:30	25.9	1	20000	20000		16:30	25.9	1	20000	20000
	17:30	18.5	1	20000	20000		17:30	18.5	1	20000	20000
	18:30	10.3	1	20000	20000		18:30	10.3	1	20000	20000
	19:30	2	1	20000	20000		19:30	2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0

	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 02/Apr	00:30	0	0	20000	0	Mon, 02/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.7	1	20000	20000		07:30	5.7	1	20000	20000
	08:30	14.1	1	20000	20000		08:30	14.1	1	20000	20000
	09:30	22	1	20000	20000		09:30	22	1	20000	20000
	10:30	29	1	20000	20000		10:30	29	1	20000	20000
	11:30	34.6	1	20000	20000		11:30	34.6	1	20000	20000
	12:30	38	1	20000	20000		12:30	38	1	20000	20000
	13:30	38.8	1	20000	20000		13:30	38.8	1	20000	20000
	14:30	36.9	1	20000	20000		14:30	36.9	1	20000	20000
	15:30	32.5	1	20000	20000		15:30	32.5	1	20000	20000
	16:30	26.2	1	20000	20000		16:30	26.2	1	20000	20000
	17:30	18.8	1	20000	20000		17:30	18.8	1	20000	20000
	18:30	10.6	1	20000	20000		18:30	10.6	1	20000	20000
	19:30	2.2	1	20000	20000		19:30	2.2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 03/Apr	00:30	0	0	20000	0	Tue, 03/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.1	1	20000	20000		07:30	6.1	1	20000	20000
	08:30	14.4	1	20000	20000		08:30	14.4	1	20000	20000
	09:30	22.4	1	20000	20000		09:30	22.4	1	20000	20000
	10:30	29.4	1	20000	20000		10:30	29.4	1	20000	20000
	11:30	34.9	1	20000	20000		11:30	34.9	1	20000	20000
	12:30	38.4	1	20000	20000		12:30	38.4	1	20000	20000
	13:30	39.2	1	20000	20000		13:30	39.2	1	20000	20000
	14:30	37.2	1	20000	20000		14:30	37.2	1	20000	20000
	15:30	32.8	1	20000	20000		15:30	32.8	1	20000	20000
	16:30	26.5	1	20000	20000		16:30	26.5	1	20000	20000
	17:30	19.1	1	20000	20000		17:30	19.1	1	20000	20000
	18:30	10.9	1	20000	20000		18:30	10.9	1	20000	20000
	19:30	2.5	1	20000	20000		19:30	2.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 04/Apr	00:30	0	0	20000	0	Wed, 04/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.5	1	20000	20000		07:30	6.5	1	20000	20000
	08:30	14.8	1	20000	20000		08:30	14.8	1	20000	20000
	09:30	22.7	1	20000	20000		09:30	22.7	1	20000	20000
	10:30	29.8	1	20000	20000		10:30	29.8	1	20000	20000
	11:30	35.3	1	20000	20000		11:30	35.3	1	20000	20000
	12:30	38.8	1	20000	20000		12:30	38.8	1	20000	20000
	13:30	39.6	1	20000	20000		13:30	39.6	1	20000	20000
	14:30	37.6	1	20000	20000		14:30	37.6	1	20000	20000
	15:30	33.1	1	20000	20000		15:30	33.1	1	20000	20000
	16:30	26.8	1	20000	20000		16:30	26.8	1	20000	20000
	17:30	19.3	1	20000	20000		17:30	19.3	1	20000	20000
	18:30	11.2	1	20000	20000		18:30	11.2	1	20000	20000
	19:30	2.8	1	20000	20000		19:30	2.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 05/Apr	00:30	0	0	20000	0	Thu, 05/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.8	1	20000	20000		07:30	6.8	1	20000	20000
	08:30	15.1	1	20000	20000		08:30	15.1	1	20000	20000
	09:30	23.1	1	20000	20000		09:30	23.1	1	20000	20000
	10:30	30.1	1	20000	20000		10:30	30.1	1	20000	20000
	11:30	35.7	1	20000	20000		11:30	35.7	1	20000	20000
	12:30	39.2	1	20000	20000		12:30	39.2	1	20000	20000
	13:30	39.9	1	20000	20000		13:30	39.9	1	20000	20000
	14:30	37.9	1	20000	20000		14:30	37.9	1	20000	20000
	15:30	33.4	1	20000	20000		15:30	33.4	1	20000	20000
	16:30	27.1	1	20000	20000		16:30	27.1	1	20000	20000
	17:30	19.6	1	20000	20000		17:30	19.6	1	20000	20000
	18:30	11.4	1	20000	20000		18:30	11.4	1	20000	20000
	19:30	3.1	1	20000	20000		19:30	3.1	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 06/Apr	00:30	0	0	20000	0	Fri, 06/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.2	1	20000	20000		07:30	7.2	1	20000	20000
	08:30	15.5	1	20000	20000		08:30	15.5	1	20000	20000
	09:30	23.5	1	20000	20000		09:30	23.5	1	20000	20000
	10:30	30.5	1	20000	20000		10:30	30.5	1	20000	20000
	11:30	36.1	1	20000	20000		11:30	36.1	1	20000	20000
	12:30	39.5	1	20000	20000		12:30	39.5	1	20000	20000
	13:30	40.3	1	20000	20000		13:30	40.3	1	20000	20000
	14:30	38.3	1	20000	20000		14:30	38.3	1	20000	20000
	15:30	33.8	1	20000	20000		15:30	33.8	1	20000	20000
	16:30	27.4	1	20000	20000		16:30	27.4	1	20000	20000
	17:30	19.9	1	20000	20000		17:30	19.9	1	20000	20000
	18:30	11.7	1	20000	20000		18:30	11.7	1	20000	20000
	19:30	3.3	1	20000	20000		19:30	3.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 07/Apr	00:30	0	0	20000	0	Sat, 07/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.5	1	20000	20000		07:30	7.5	1	20000	20000
	08:30	15.9	1	20000	20000		08:30	15.9	1	20000	20000
	09:30	23.8	1	20000	20000		09:30	23.8	1	20000	20000
	10:30	30.9	1	20000	20000		10:30	30.9	1	20000	20000
	11:30	36.5	1	20000	20000		11:30	36.5	1	20000	20000
	12:30	39.9	1	20000	20000		12:30	39.9	1	20000	20000
	13:30	40.7	1	20000	20000		13:30	40.7	1	20000	20000

	14:30	38.6	1	20000	20000		14:30	38.6	1	20000	20000
	15:30	34.1	1	20000	20000		15:30	34.1	1	20000	20000
	16:30	27.7	1	20000	20000		16:30	27.7	1	20000	20000
	17:30	20.2	1	20000	20000		17:30	20.2	1	20000	20000
	18:30	12	1	20000	20000		18:30	12	1	20000	20000
	19:30	3.6	1	20000	20000		19:30	3.6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 08/Apr	00:30	0	0	20000	0	Sun, 08/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.9	1	20000	20000		07:30	7.9	1	20000	20000
	08:30	16.2	1	20000	20000		08:30	16.2	1	20000	20000
	09:30	24.2	1	20000	20000		09:30	24.2	1	20000	20000
	10:30	31.3	1	20000	20000		10:30	31.3	1	20000	20000
	11:30	36.9	1	20000	20000		11:30	36.9	1	20000	20000
	12:30	40.3	1	20000	20000		12:30	40.3	1	20000	20000
	13:30	41.1	1	20000	20000		13:30	41.1	1	20000	20000
	14:30	39	1	20000	20000		14:30	39	1	20000	20000
	15:30	34.4	1	20000	20000		15:30	34.4	1	20000	20000
	16:30	28	1	20000	20000		16:30	28	1	20000	20000
	17:30	20.5	1	20000	20000		17:30	20.5	1	20000	20000
	18:30	12.3	1	20000	20000		18:30	12.3	1	20000	20000
	19:30	3.9	1	20000	20000		19:30	3.9	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 09/Apr	00:30	0	0	20000	0	Mon, 09/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.2	1	20000	20000		07:30	8.2	1	20000	20000
	08:30	16.6	1	20000	20000		08:30	16.6	1	20000	20000
	09:30	24.5	1	20000	20000		09:30	24.5	1	20000	20000
	10:30	31.6	1	20000	20000		10:30	31.6	1	20000	20000
	11:30	37.2	1	20000	20000		11:30	37.2	1	20000	20000
	12:30	40.7	1	20000	20000		12:30	40.7	1	20000	20000
	13:30	41.4	1	20000	20000		13:30	41.4	1	20000	20000
	14:30	39.3	1	20000	20000		14:30	39.3	1	20000	20000
	15:30	34.7	1	20000	20000		15:30	34.7	1	20000	20000
	16:30	28.3	1	20000	20000		16:30	28.3	1	20000	20000
	17:30	20.7	1	20000	20000		17:30	20.7	1	20000	20000
	18:30	12.5	1	20000	20000		18:30	12.5	1	20000	20000
	19:30	4.1	1	20000	20000		19:30	4.1	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 10/Apr	00:30	0	0	20000	0	Tue, 10/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.3	1	20000	20000		06:30	0.3	1	20000	20000
	07:30	8.6	1	20000	20000		07:30	8.6	1	20000	20000
	08:30	16.9	1	20000	20000		08:30	16.9	1	20000	20000
	09:30	24.9	1	20000	20000		09:30	24.9	1	20000	20000
	10:30	32	1	20000	20000		10:30	32	1	20000	20000
	11:30	37.6	1	20000	20000		11:30	37.6	1	20000	20000
	12:30	41.1	1	20000	20000		12:30	41.1	1	20000	20000
	13:30	41.8	1	20000	20000		13:30	41.8	1	20000	20000
	14:30	39.7	1	20000	20000		14:30	39.7	1	20000	20000
	15:30	35.1	1	20000	20000		15:30	35.1	1	20000	20000
	16:30	28.6	1	20000	20000		16:30	28.6	1	20000	20000
	17:30	21	1	20000	20000		17:30	21	1	20000	20000
	18:30	12.8	1	20000	20000		18:30	12.8	1	20000	20000
	19:30	4.4	1	20000	20000		19:30	4.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 11/Apr	00:30	0	0	20000	0	Wed, 11/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.6	1	20000	20000		06:30	0.6	1	20000	20000
	07:30	8.9	1	20000	20000		07:30	8.9	1	20000	20000
	08:30	17.3	1	20000	20000		08:30	17.3	1	20000	20000
	09:30	25.2	1	20000	20000		09:30	25.2	1	20000	20000
	10:30	32.4	1	20000	20000		10:30	32.4	1	20000	20000
	11:30	38	1	20000	20000		11:30	38	1	20000	20000
	12:30	41.4	1	20000	20000		12:30	41.4	1	20000	20000
	13:30	42.2	1	20000	20000		13:30	42.2	1	20000	20000
	14:30	40	1	20000	20000		14:30	40	1	20000	20000
	15:30	35.4	1	20000	20000		15:30	35.4	1	20000	20000
	16:30	28.9	1	20000	20000		16:30	28.9	1	20000	20000
	17:30	21.3	1	20000	20000		17:30	21.3	1	20000	20000
	18:30	13.1	1	20000	20000		18:30	13.1	1	20000	20000
	19:30	4.7	1	20000	20000		19:30	4.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 12/Apr	00:30	0	0	20000	0	Thu, 12/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.9	1	20000	20000		06:30	0.9	1	20000	20000
	07:30	9.3	1	20000	20000		07:30	9.3	1	20000	20000
	08:30	17.6	1	20000	20000		08:30	17.6	1	20000	20000
	09:30	25.6	1	20000	20000		09:30	25.6	1	20000	20000
	10:30	32.7	1	20000	20000		10:30	32.7	1	20000	20000
	11:30	38.4	1	20000	20000		11:30	38.4	1	20000	20000
	12:30	41.8	1	20000	20000		12:30	41.8	1	20000	20000
	13:30	42.5	1	20000	20000		13:30	42.5	1	20000	20000
	14:30	40.3	1	20000	20000		14:30	40.3	1	20000	20000
	15:30	35.7	1	20000	20000		15:30	35.7	1	20000	20000
	16:30	29.2	1	20000	20000		16:30	29.2	1	20000	20000
	17:30	21.6	1	20000	20000		17:30	21.6	1	20000	20000
	18:30	13.3	1	20000	20000		18:30	13.3	1	20000	20000
	19:30	4.9	1	20000	20000		19:30	4.9	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 13/Apr	00:30	0	0	20000	0	Fri, 13/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.3	1	20000	20000		06:30	1.3	1	20000	20000

	07:30	9.6	1	20000	20000		07:30	9.6	1	20000	20000
	08:30	17.9	1	20000	20000		08:30	17.9	1	20000	20000
	09:30	25.9	1	20000	20000		09:30	25.9	1	20000	20000
	10:30	33.1	1	20000	20000		10:30	33.1	1	20000	20000
	11:30	38.7	1	20000	20000		11:30	38.7	1	20000	20000
	12:30	42.2	1	20000	20000		12:30	42.2	1	20000	20000
	13:30	42.9	1	20000	20000		13:30	42.9	1	20000	20000
	14:30	40.7	1	20000	20000		14:30	40.7	1	20000	20000
	15:30	36	1	20000	20000		15:30	36	1	20000	20000
	16:30	29.5	1	20000	20000		16:30	29.5	1	20000	20000
	17:30	21.8	1	20000	20000		17:30	21.8	1	20000	20000
	18:30	13.6	1	20000	20000		18:30	13.6	1	20000	20000
	19:30	5.2	1	20000	20000		19:30	5.2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 14/Apr	00:30	0	0	20000	0	Sat, 14/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.6	1	20000	20000		06:30	1.6	1	20000	20000
	07:30	9.9	1	20000	20000		07:30	9.9	1	20000	20000
	08:30	18.3	1	20000	20000		08:30	18.3	1	20000	20000
	09:30	26.3	1	20000	20000		09:30	26.3	1	20000	20000
	10:30	33.4	1	20000	20000		10:30	33.4	1	20000	20000
	11:30	39.1	1	20000	20000		11:30	39.1	1	20000	20000
	12:30	42.6	1	20000	20000		12:30	42.6	1	20000	20000
	13:30	43.2	1	20000	20000		13:30	43.2	1	20000	20000
	14:30	41	1	20000	20000		14:30	41	1	20000	20000
	15:30	36.3	1	20000	20000		15:30	36.3	1	20000	20000
	16:30	29.8	1	20000	20000		16:30	29.8	1	20000	20000
	17:30	22.1	1	20000	20000		17:30	22.1	1	20000	20000
	18:30	13.8	1	20000	20000		18:30	13.8	1	20000	20000
	19:30	5.5	1	20000	20000		19:30	5.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 15/Apr	00:30	0	0	20000	0	Sun, 15/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2	1	20000	20000		06:30	2	1	20000	20000
	07:30	10.3	1	20000	20000		07:30	10.3	1	20000	20000
	08:30	18.6	1	20000	20000		08:30	18.6	1	20000	20000
	09:30	26.6	1	20000	20000		09:30	26.6	1	20000	20000
	10:30	33.8	1	20000	20000		10:30	33.8	1	20000	20000
	11:30	39.5	1	20000	20000		11:30	39.5	1	20000	20000
	12:30	42.9	1	20000	20000		12:30	42.9	1	20000	20000
	13:30	43.6	1	20000	20000		13:30	43.6	1	20000	20000
	14:30	41.4	1	20000	20000		14:30	41.4	1	20000	20000
	15:30	36.6	1	20000	20000		15:30	36.6	1	20000	20000
	16:30	30	1	20000	20000		16:30	30	1	20000	20000
	17:30	22.4	1	20000	20000		17:30	22.4	1	20000	20000
	18:30	14.1	1	20000	20000		18:30	14.1	1	20000	20000
	19:30	5.7	1	20000	20000		19:30	5.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 16/Apr	00:30	0	0	20000	0	Mon, 16/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.3	1	20000	20000		06:30	2.3	1	20000	20000
	07:30	10.6	1	20000	20000		07:30	10.6	1	20000	20000
	08:30	19	1	20000	20000		08:30	19	1	20000	20000
	09:30	27	1	20000	20000		09:30	27	1	20000	20000
	10:30	34.1	1	20000	20000		10:30	34.1	1	20000	20000
	11:30	39.8	1	20000	20000		11:30	39.8	1	20000	20000
	12:30	43.3	1	20000	20000		12:30	43.3	1	20000	20000
	13:30	44	1	20000	20000		13:30	44	1	20000	20000
	14:30	41.7	1	20000	20000		14:30	41.7	1	20000	20000
	15:30	36.9	1	20000	20000		15:30	36.9	1	20000	20000
	16:30	30.3	1	20000	20000		16:30	30.3	1	20000	20000
	17:30	22.6	1	20000	20000		17:30	22.6	1	20000	20000
	18:30	14.4	1	20000	20000		18:30	14.4	1	20000	20000
	19:30	6	1	20000	20000		19:30	6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 17/Apr	00:30	0	0	20000	0	Tue, 17/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.6	1	20000	20000		06:30	2.6	1	20000	20000
	07:30	10.9	1	20000	20000		07:30	10.9	1	20000	20000
	08:30	19.3	1	20000	20000		08:30	19.3	1	20000	20000
	09:30	27.3	1	20000	20000		09:30	27.3	1	20000	20000
	10:30	34.5	1	20000	20000		10:30	34.5	1	20000	20000
	11:30	40.2	1	20000	20000		11:30	40.2	1	20000	20000
	12:30	43.6	1	20000	20000		12:30	43.6	1	20000	20000
	13:30	44.3	1	20000	20000		13:30	44.3	1	20000	20000
	14:30	42	1	20000	20000		14:30	42	1	20000	20000
	15:30	37.2	1	20000	20000		15:30	37.2	1	20000	20000
	16:30	30.6	1	20000	20000		16:30	30.6	1	20000	20000
	17:30	22.9	1	20000	20000		17:30	22.9	1	20000	20000
	18:30	14.6	1	20000	20000		18:30	14.6	1	20000	20000
	19:30	6.3	1	20000	20000		19:30	6.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 18/Apr	00:30	0	0	20000	0	Wed, 18/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3	1	20000	20000		06:30	3	1	20000	20000
	07:30	11.2	1	20000	20000		07:30	11.2	1	20000	20000
	08:30	19.6	1	20000	20000		08:30	19.6	1	20000	20000
	09:30	27.6	1	20000	20000		09:30	27.6	1	20000	20000
	10:30	34.8	1	20000	20000		10:30	34.8	1	20000	20000
	11:30	40.5	1	20000	20000		11:30	40.5	1	20000	20000
	12:30	44	1	20000	20000		12:30	44	1	20000	20000
	13:30	44.7	1	20000	20000		13:30	44.7	1	20000	20000
	14:30	42.3	1	20000	20000		14:30	42.3	1	20000	20000
	15:30	37.5	1	20000	20000		15:30	37.5	1	20000	20000
	16:30	30.9	1	20000	20000		16:30	30.9	1	20000	20000
	17:30	23.2	1	20000	20000		17:30	23.2	1	20000	20000
	18:30	14.9	1	20000	20000		18:30	14.9	1	20000	20000
	19:30	6.5	1	20000	20000		19:30	6.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0

Thu, 19/Apr	00:30	0	0	20000	0	Thu, 19/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.3	1	20000	20000		06:30	3.3	1	20000	20000
	07:30	11.6	1	20000	20000		07:30	11.6	1	20000	20000
	08:30	19.9	1	20000	20000		08:30	19.9	1	20000	20000
	09:30	28	1	20000	20000		09:30	28	1	20000	20000
	10:30	35.2	1	20000	20000		10:30	35.2	1	20000	20000
	11:30	40.9	1	20000	20000		11:30	40.9	1	20000	20000
	12:30	44.4	1	20000	20000		12:30	44.4	1	20000	20000
	13:30	45	1	20000	20000		13:30	45	1	20000	20000
	14:30	42.7	1	20000	20000		14:30	42.7	1	20000	20000
	15:30	37.8	1	20000	20000		15:30	37.8	1	20000	20000
	16:30	31.2	1	20000	20000		16:30	31.2	1	20000	20000
	17:30	23.4	1	20000	20000		17:30	23.4	1	20000	20000
	18:30	15.1	1	20000	20000		18:30	15.1	1	20000	20000
	19:30	6.8	1	20000	20000		19:30	6.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 20/Apr	00:30	0	0	20000	0	Fri, 20/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.6	1	20000	20000		06:30	3.6	1	20000	20000
	07:30	11.9	1	20000	20000		07:30	11.9	1	20000	20000
	08:30	20.2	1	20000	20000		08:30	20.2	1	20000	20000
	09:30	28.3	1	20000	20000		09:30	28.3	1	20000	20000
	10:30	35.5	1	20000	20000		10:30	35.5	1	20000	20000
	11:30	41.2	1	20000	20000		11:30	41.2	1	20000	20000
	12:30	44.7	1	20000	20000		12:30	44.7	1	20000	20000
	13:30	45.3	1	20000	20000		13:30	45.3	1	20000	20000
	14:30	43	1	20000	20000		14:30	43	1	20000	20000
	15:30	38.1	1	20000	20000		15:30	38.1	1	20000	20000
	16:30	31.4	1	20000	20000		16:30	31.4	1	20000	20000
	17:30	23.7	1	20000	20000		17:30	23.7	1	20000	20000
	18:30	15.4	1	20000	20000		18:30	15.4	1	20000	20000
	19:30	7	1	20000	20000		19:30	7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 21/Apr	00:30	0	0	20000	0	Sat, 21/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.9	1	20000	20000		06:30	3.9	1	20000	20000
	07:30	12.2	1	20000	20000		07:30	12.2	1	20000	20000
	08:30	20.6	1	20000	20000		08:30	20.6	1	20000	20000
	09:30	28.6	1	20000	20000		09:30	28.6	1	20000	20000
	10:30	35.8	1	20000	20000		10:30	35.8	1	20000	20000
	11:30	41.6	1	20000	20000		11:30	41.6	1	20000	20000
	12:30	45.1	1	20000	20000		12:30	45.1	1	20000	20000
	13:30	45.7	1	20000	20000		13:30	45.7	1	20000	20000
	14:30	43.3	1	20000	20000		14:30	43.3	1	20000	20000
	15:30	38.4	1	20000	20000		15:30	38.4	1	20000	20000
	16:30	31.7	1	20000	20000		16:30	31.7	1	20000	20000
	17:30	23.9	1	20000	20000		17:30	23.9	1	20000	20000
	18:30	15.6	1	20000	20000		18:30	15.6	1	20000	20000
	19:30	7.3	1	20000	20000		19:30	7.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 22/Apr	00:30	0	0	20000	0	Sun, 22/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.2	1	20000	20000		06:30	4.2	1	20000	20000
	07:30	12.5	1	20000	20000		07:30	12.5	1	20000	20000
	08:30	20.9	1	20000	20000		08:30	20.9	1	20000	20000
	09:30	28.9	1	20000	20000		09:30	28.9	1	20000	20000
	10:30	36.1	1	20000	20000		10:30	36.1	1	20000	20000
	11:30	41.9	1	20000	20000		11:30	41.9	1	20000	20000
	12:30	45.4	1	20000	20000		12:30	45.4	1	20000	20000
	13:30	46	1	20000	20000		13:30	46	1	20000	20000
	14:30	43.6	1	20000	20000		14:30	43.6	1	20000	20000
	15:30	38.7	1	20000	20000		15:30	38.7	1	20000	20000
	16:30	32	1	20000	20000		16:30	32	1	20000	20000
	17:30	24.2	1	20000	20000		17:30	24.2	1	20000	20000
	18:30	15.9	1	20000	20000		18:30	15.9	1	20000	20000
	19:30	7.5	1	20000	20000		19:30	7.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 23/Apr	00:30	0	0	20000	0	Mon, 23/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.5	1	20000	20000		06:30	4.5	1	20000	20000
	07:30	12.8	1	20000	20000		07:30	12.8	1	20000	20000
	08:30	21.2	1	20000	20000		08:30	21.2	1	20000	20000
	09:30	29.2	1	20000	20000		09:30	29.2	1	20000	20000
	10:30	36.5	1	20000	20000		10:30	36.5	1	20000	20000
	11:30	42.2	1	20000	20000		11:30	42.2	1	20000	20000
	12:30	45.7	1	20000	20000		12:30	45.7	1	20000	20000
	13:30	46.3	1	20000	20000		13:30	46.3	1	20000	20000
	14:30	43.9	1	20000	20000		14:30	43.9	1	20000	20000
	15:30	39	1	20000	20000		15:30	39	1	20000	20000
	16:30	32.2	1	20000	20000		16:30	32.2	1	20000	20000
	17:30	24.4	1	20000	20000		17:30	24.4	1	20000	20000
	18:30	16.1	1	20000	20000		18:30	16.1	1	20000	20000
	19:30	7.8	1	20000	20000		19:30	7.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 24/Apr	00:30	0	0	20000	0	Tue, 24/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.8	1	20000	20000		06:30	4.8	1	20000	20000
	07:30	13.1	1	20000	20000		07:30	13.1	1	20000	20000
	08:30	21.5	1	20000	20000		08:30	21.5	1	20000	20000
	09:30	29.5	1	20000	20000		09:30	29.5	1	20000	20000
	10:30	36.8	1	20000	20000		10:30	36.8	1	20000	20000
	11:30	42.6	1	20000	20000		11:30	42.6	1	20000	20000
	12:30	46.1	1	20000	20000		12:30	46.1	1	20000	20000
	13:30	46.7	1	20000	20000		13:30	46.7	1	20000	20000
	14:30	44.2	1	20000	20000		14:30	44.2	1	20000	20000
	15:30	39.3	1	20000	20000		15:30	39.3	1	20000	20000
	16:30	32.5	1	20000	20000		16:30	32.5	1	20000	20000

	17:30	24.7	1	20000	20000		17:30	24.7	1	20000	20000
	18:30	16.4	1	20000	20000		18:30	16.4	1	20000	20000
	19:30	8	1	20000	20000		19:30	8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 25/Apr	00:30	0	0	20000	0	Wed, 25/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.1	1	20000	20000		06:30	5.1	1	20000	20000
	07:30	13.4	1	20000	20000		07:30	13.4	1	20000	20000
	08:30	21.8	1	20000	20000		08:30	21.8	1	20000	20000
	09:30	29.8	1	20000	20000		09:30	29.8	1	20000	20000
	10:30	37.1	1	20000	20000		10:30	37.1	1	20000	20000
	11:30	42.9	1	20000	20000		11:30	42.9	1	20000	20000
	12:30	46.4	1	20000	20000		12:30	46.4	1	20000	20000
	13:30	47	1	20000	20000		13:30	47	1	20000	20000
	14:30	44.5	1	20000	20000		14:30	44.5	1	20000	20000
	15:30	39.5	1	20000	20000		15:30	39.5	1	20000	20000
	16:30	32.8	1	20000	20000		16:30	32.8	1	20000	20000
	17:30	24.9	1	20000	20000		17:30	24.9	1	20000	20000
	18:30	16.6	1	20000	20000		18:30	16.6	1	20000	20000
	19:30	8.3	1	20000	20000		19:30	8.3	1	20000	20000
	20:30	0.3	1	20000	20000		20:30	0.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 26/Apr	00:30	0	0	20000	0	Thu, 26/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.4	1	20000	20000		06:30	5.4	1	20000	20000
	07:30	13.7	1	20000	20000		07:30	13.7	1	20000	20000
	08:30	22.1	1	20000	20000		08:30	22.1	1	20000	20000
	09:30	30.1	1	20000	20000		09:30	30.1	1	20000	20000
	10:30	37.4	1	20000	20000		10:30	37.4	1	20000	20000
	11:30	43.2	1	20000	20000		11:30	43.2	1	20000	20000
	12:30	46.7	1	20000	20000		12:30	46.7	1	20000	20000
	13:30	47.3	1	20000	20000		13:30	47.3	1	20000	20000
	14:30	44.8	1	20000	20000		14:30	44.8	1	20000	20000
	15:30	39.8	1	20000	20000		15:30	39.8	1	20000	20000
	16:30	33	1	20000	20000		16:30	33	1	20000	20000
	17:30	25.2	1	20000	20000		17:30	25.2	1	20000	20000
	18:30	16.9	1	20000	20000		18:30	16.9	1	20000	20000
	19:30	8.5	1	20000	20000		19:30	8.5	1	20000	20000
	20:30	0.5	1	20000	20000		20:30	0.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 27/Apr	00:30	0	0	20000	0	Fri, 27/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.7	1	20000	20000		06:30	5.7	1	20000	20000
	07:30	14	1	20000	20000		07:30	14	1	20000	20000
	08:30	22.4	1	20000	20000		08:30	22.4	1	20000	20000
	09:30	30.4	1	20000	20000		09:30	30.4	1	20000	20000
	10:30	37.7	1	20000	20000		10:30	37.7	1	20000	20000
	11:30	43.5	1	20000	20000		11:30	43.5	1	20000	20000
	12:30	47.1	1	20000	20000		12:30	47.1	1	20000	20000
	13:30	47.6	1	20000	20000		13:30	47.6	1	20000	20000
	14:30	45.1	1	20000	20000		14:30	45.1	1	20000	20000
	15:30	40.1	1	20000	20000		15:30	40.1	1	20000	20000
	16:30	33.3	1	20000	20000		16:30	33.3	1	20000	20000
	17:30	25.4	1	20000	20000		17:30	25.4	1	20000	20000
	18:30	17.1	1	20000	20000		18:30	17.1	1	20000	20000
	19:30	8.8	1	20000	20000		19:30	8.8	1	20000	20000
	20:30	0.8	1	20000	20000		20:30	0.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 28/Apr	00:30	0	0	20000	0	Sat, 28/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6	1	20000	20000		06:30	6	1	20000	20000
	07:30	14.3	1	20000	20000		07:30	14.3	1	20000	20000
	08:30	22.6	1	20000	20000		08:30	22.6	1	20000	20000
	09:30	30.7	1	20000	20000		09:30	30.7	1	20000	20000
	10:30	38	1	20000	20000		10:30	38	1	20000	20000
	11:30	43.8	1	20000	20000		11:30	43.8	1	20000	20000
	12:30	47.4	1	20000	20000		12:30	47.4	1	20000	20000
	13:30	48	1	20000	20000		13:30	48	1	20000	20000
	14:30	45.4	1	20000	20000		14:30	45.4	1	20000	20000
	15:30	40.4	1	20000	20000		15:30	40.4	1	20000	20000
	16:30	33.5	1	20000	20000		16:30	33.5	1	20000	20000
	17:30	25.7	1	20000	20000		17:30	25.7	1	20000	20000
	18:30	17.3	1	20000	20000		18:30	17.3	1	20000	20000
	19:30	9	1	20000	20000		19:30	9	1	20000	20000
	20:30	1	1	20000	20000		20:30	1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 29/Apr	00:30	0	0	20000	0	Sun, 29/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.3	1	20000	20000		06:30	6.3	1	20000	20000
	07:30	14.5	1	20000	20000		07:30	14.5	1	20000	20000
	08:30	22.9	1	20000	20000		08:30	22.9	1	20000	20000
	09:30	31	1	20000	20000		09:30	31	1	20000	20000
	10:30	38.3	1	20000	20000		10:30	38.3	1	20000	20000
	11:30	44.1	1	20000	20000		11:30	44.1	1	20000	20000
	12:30	47.7	1	20000	20000		12:30	47.7	1	20000	20000
	13:30	48.3	1	20000	20000		13:30	48.3	1	20000	20000
	14:30	45.7	1	20000	20000		14:30	45.7	1	20000	20000
	15:30	40.6	1	20000	20000		15:30	40.6	1	20000	20000
	16:30	33.8	1	20000	20000		16:30	33.8	1	20000	20000
	17:30	25.9	1	20000	20000		17:30	25.9	1	20000	20000
	18:30	17.6	1	20000	20000		18:30	17.6	1	20000	20000
	19:30	9.2	1	20000	20000		19:30	9.2	1	20000	20000
	20:30	1.3	1	20000	20000		20:30	1.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 30/Apr	00:30	0	0	20000	0	Mon, 30/Apr	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.6	1	20000	20000		06:30	6.6	1	20000	20000
	07:30	14.8	1	20000	20000		07:30	14.8	1	20000	20000
	08:30	23.2	1	20000	20000		08:30	23.2	1	20000	20000
	09:30	31.3	1	20000	20000		09:30	31.3	1	20000	20000

	10:30	38.6	1	20000	20000		10:30	38.6	1	20000	20000
	11:30	44.5	1	20000	20000		11:30	44.5	1	20000	20000
	12:30	48	1	20000	20000		12:30	48	1	20000	20000
	13:30	48.6	1	20000	20000		13:30	48.6	1	20000	20000
	14:30	46	1	20000	20000		14:30	46	1	20000	20000
	15:30	40.9	1	20000	20000		15:30	40.9	1	20000	20000
	16:30	34	1	20000	20000		16:30	34	1	20000	20000
	17:30	26.1	1	20000	20000		17:30	26.1	1	20000	20000
	18:30	17.8	1	20000	20000		18:30	17.8	1	20000	20000
	19:30	9.5	1	20000	20000		19:30	9.5	1	20000	20000
	20:30	1.5	1	20000	20000		20:30	1.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 01/May	00:30	0	0	20000	0	Tue, 01/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.8	1	20000	20000		06:30	6.8	1	20000	20000
	07:30	15.1	1	20000	20000		07:30	15.1	1	20000	20000
	08:30	23.5	1	20000	20000		08:30	23.5	1	20000	20000
	09:30	31.6	1	20000	20000		09:30	31.6	1	20000	20000
	10:30	38.9	1	20000	20000		10:30	38.9	1	20000	20000
	11:30	44.8	1	20000	20000		11:30	44.8	1	20000	20000
	12:30	48.3	1	20000	20000		12:30	48.3	1	20000	20000
	13:30	48.9	1	20000	20000		13:30	48.9	1	20000	20000
	14:30	46.3	1	20000	20000		14:30	46.3	1	20000	20000
	15:30	41.2	1	20000	20000		15:30	41.2	1	20000	20000
	16:30	34.3	1	20000	20000		16:30	34.3	1	20000	20000
	17:30	26.4	1	20000	20000		17:30	26.4	1	20000	20000
	18:30	18	1	20000	20000		18:30	18	1	20000	20000
	19:30	9.7	1	20000	20000		19:30	9.7	1	20000	20000
	20:30	1.8	1	20000	20000		20:30	1.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 02/May	00:30	0	0	20000	0	Wed, 02/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.1	1	20000	20000		06:30	7.1	1	20000	20000
	07:30	15.3	1	20000	20000		07:30	15.3	1	20000	20000
	08:30	23.7	1	20000	20000		08:30	23.7	1	20000	20000
	09:30	31.8	1	20000	20000		09:30	31.8	1	20000	20000
	10:30	39.2	1	20000	20000		10:30	39.2	1	20000	20000
	11:30	45	1	20000	20000		11:30	45	1	20000	20000
	12:30	48.6	1	20000	20000		12:30	48.6	1	20000	20000
	13:30	49.2	1	20000	20000		13:30	49.2	1	20000	20000
	14:30	46.6	1	20000	20000		14:30	46.6	1	20000	20000
	15:30	41.4	1	20000	20000		15:30	41.4	1	20000	20000
	16:30	34.5	1	20000	20000		16:30	34.5	1	20000	20000
	17:30	26.6	1	20000	20000		17:30	26.6	1	20000	20000
	18:30	18.3	1	20000	20000		18:30	18.3	1	20000	20000
	19:30	9.9	1	20000	20000		19:30	9.9	1	20000	20000
	20:30	2	1	20000	20000		20:30	2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 03/May	00:30	0	0	20000	0	Thu, 03/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.4	1	20000	20000		06:30	7.4	1	20000	20000
	07:30	15.6	1	20000	20000		07:30	15.6	1	20000	20000
	08:30	24	1	20000	20000		08:30	24	1	20000	20000
	09:30	32.1	1	20000	20000		09:30	32.1	1	20000	20000
	10:30	39.5	1	20000	20000		10:30	39.5	1	20000	20000
	11:30	45.3	1	20000	20000		11:30	45.3	1	20000	20000
	12:30	48.9	1	20000	20000		12:30	48.9	1	20000	20000
	13:30	49.5	1	20000	20000		13:30	49.5	1	20000	20000
	14:30	46.9	1	20000	20000		14:30	46.9	1	20000	20000
	15:30	41.7	1	20000	20000		15:30	41.7	1	20000	20000
	16:30	34.8	1	20000	20000		16:30	34.8	1	20000	20000
	17:30	26.8	1	20000	20000		17:30	26.8	1	20000	20000
	18:30	18.5	1	20000	20000		18:30	18.5	1	20000	20000
	19:30	10.2	1	20000	20000		19:30	10.2	1	20000	20000
	20:30	2.2	1	20000	20000		20:30	2.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 04/May	00:30	0	0	20000	0	Fri, 04/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.6	1	20000	20000		06:30	7.6	1	20000	20000
	07:30	15.9	1	20000	20000		07:30	15.9	1	20000	20000
	08:30	24.2	1	20000	20000		08:30	24.2	1	20000	20000
	09:30	32.4	1	20000	20000		09:30	32.4	1	20000	20000
	10:30	39.7	1	20000	20000		10:30	39.7	1	20000	20000
	11:30	45.6	1	20000	20000		11:30	45.6	1	20000	20000
	12:30	49.2	1	20000	20000		12:30	49.2	1	20000	20000
	13:30	49.8	1	20000	20000		13:30	49.8	1	20000	20000
	14:30	47.2	1	20000	20000		14:30	47.2	1	20000	20000
	15:30	41.9	1	20000	20000		15:30	41.9	1	20000	20000
	16:30	35	1	20000	20000		16:30	35	1	20000	20000
	17:30	27.1	1	20000	20000		17:30	27.1	1	20000	20000
	18:30	18.7	1	20000	20000		18:30	18.7	1	20000	20000
	19:30	10.4	1	20000	20000		19:30	10.4	1	20000	20000
	20:30	2.5	1	20000	20000		20:30	2.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 05/May	00:30	0	0	20000	0	Sat, 05/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.2	1	20000	20000		05:30	0.2	1	20000	20000
	06:30	7.9	1	20000	20000		06:30	7.9	1	20000	20000
	07:30	16.1	1	20000	20000		07:30	16.1	1	20000	20000
	08:30	24.5	1	20000	20000		08:30	24.5	1	20000	20000
	09:30	32.6	1	20000	20000		09:30	32.6	1	20000	20000
	10:30	40	1	20000	20000		10:30	40	1	20000	20000
	11:30	45.9	1	20000	20000		11:30	45.9	1	20000	20000
	12:30	49.5	1	20000	20000		12:30	49.5	1	20000	20000
	13:30	50.1	1	20000	20000		13:30	50.1	1	20000	20000
	14:30	47.4	1	20000	20000		14:30	47.4	1	20000	20000
	15:30	42.2	1	20000	20000		15:30	42.2	1	20000	20000
	16:30	35.2	1	20000	20000		16:30	35.2	1	20000	20000
	17:30	27.3	1	20000	20000		17:30	27.3	1	20000	20000
	18:30	18.9	1	20000	20000		18:30	18.9	1	20000	20000
	19:30	10.6	1	20000	20000		19:30	10.6	1	20000	20000
	20:30	2.7	1	20000	20000		20:30	2.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 06/May	00:30	0	0	20000	0	Sun, 06/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0

	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.5	1	20000	20000		05:30	0.5	1	20000	20000
	06:30	8.1	1	20000	20000		06:30	8.1	1	20000	20000
	07:30	16.4	1	20000	20000		07:30	16.4	1	20000	20000
	08:30	24.7	1	20000	20000		08:30	24.7	1	20000	20000
	09:30	32.9	1	20000	20000		09:30	32.9	1	20000	20000
	10:30	40.3	1	20000	20000		10:30	40.3	1	20000	20000
	11:30	46.2	1	20000	20000		11:30	46.2	1	20000	20000
	12:30	49.8	1	20000	20000		12:30	49.8	1	20000	20000
	13:30	50.3	1	20000	20000		13:30	50.3	1	20000	20000
	14:30	47.7	1	20000	20000		14:30	47.7	1	20000	20000
	15:30	42.4	1	20000	20000		15:30	42.4	1	20000	20000
	16:30	35.5	1	20000	20000		16:30	35.5	1	20000	20000
	17:30	27.5	1	20000	20000		17:30	27.5	1	20000	20000
	18:30	19.2	1	20000	20000		18:30	19.2	1	20000	20000
	19:30	10.9	1	20000	20000		19:30	10.9	1	20000	20000
	20:30	3	1	20000	20000		20:30	3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 07/May	00:30	0	0	20000	0	Mon, 07/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.7	1	20000	20000		05:30	0.7	1	20000	20000
	06:30	8.4	1	20000	20000		06:30	8.4	1	20000	20000
	07:30	16.6	1	20000	20000		07:30	16.6	1	20000	20000
	08:30	25	1	20000	20000		08:30	25	1	20000	20000
	09:30	33.1	1	20000	20000		09:30	33.1	1	20000	20000
	10:30	40.5	1	20000	20000		10:30	40.5	1	20000	20000
	11:30	46.5	1	20000	20000		11:30	46.5	1	20000	20000
	12:30	50.1	1	20000	20000		12:30	50.1	1	20000	20000
	13:30	50.6	1	20000	20000		13:30	50.6	1	20000	20000
	14:30	48	1	20000	20000		14:30	48	1	20000	20000
	15:30	42.7	1	20000	20000		15:30	42.7	1	20000	20000
	16:30	35.7	1	20000	20000		16:30	35.7	1	20000	20000
	17:30	27.7	1	20000	20000		17:30	27.7	1	20000	20000
	18:30	19.4	1	20000	20000		18:30	19.4	1	20000	20000
	19:30	11.1	1	20000	20000		19:30	11.1	1	20000	20000
	20:30	3.2	1	20000	20000		20:30	3.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 08/May	00:30	0	0	20000	0	Tue, 08/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1	1	20000	20000		05:30	1	1	20000	20000
	06:30	8.6	1	20000	20000		06:30	8.6	1	20000	20000
	07:30	16.8	1	20000	20000		07:30	16.8	1	20000	20000
	08:30	25.2	1	20000	20000		08:30	25.2	1	20000	20000
	09:30	33.4	1	20000	20000		09:30	33.4	1	20000	20000
	10:30	40.8	1	20000	20000		10:30	40.8	1	20000	20000
	11:30	46.7	1	20000	20000		11:30	46.7	1	20000	20000
	12:30	50.4	1	20000	20000		12:30	50.4	1	20000	20000
	13:30	50.9	1	20000	20000		13:30	50.9	1	20000	20000
	14:30	48.2	1	20000	20000		14:30	48.2	1	20000	20000
	15:30	42.9	1	20000	20000		15:30	42.9	1	20000	20000
	16:30	35.9	1	20000	20000		16:30	35.9	1	20000	20000
	17:30	28	1	20000	20000		17:30	28	1	20000	20000
	18:30	19.6	1	20000	20000		18:30	19.6	1	20000	20000
	19:30	11.3	1	20000	20000		19:30	11.3	1	20000	20000
	20:30	3.4	1	20000	20000		20:30	3.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 09/May	00:30	0	0	20000	0	Wed, 09/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.2	1	20000	20000		05:30	1.2	1	20000	20000
	06:30	8.9	1	20000	20000		06:30	8.9	1	20000	20000
	07:30	17.1	1	20000	20000		07:30	17.1	1	20000	20000
	08:30	25.4	1	20000	20000		08:30	25.4	1	20000	20000
	09:30	33.6	1	20000	20000		09:30	33.6	1	20000	20000
	10:30	41	1	20000	20000		10:30	41	1	20000	20000
	11:30	47	1	20000	20000		11:30	47	1	20000	20000
	12:30	50.6	1	20000	20000		12:30	50.6	1	20000	20000
	13:30	51.2	1	20000	20000		13:30	51.2	1	20000	20000
	14:30	48.5	1	20000	20000		14:30	48.5	1	20000	20000
	15:30	43.2	1	20000	20000		15:30	43.2	1	20000	20000
	16:30	36.1	1	20000	20000		16:30	36.1	1	20000	20000
	17:30	28.2	1	20000	20000		17:30	28.2	1	20000	20000
	18:30	19.8	1	20000	20000		18:30	19.8	1	20000	20000
	19:30	11.5	1	20000	20000		19:30	11.5	1	20000	20000
	20:30	3.6	1	20000	20000		20:30	3.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 10/May	00:30	0	0	20000	0	Thu, 10/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.4	1	20000	20000		05:30	1.4	1	20000	20000
	06:30	9.1	1	20000	20000		06:30	9.1	1	20000	20000
	07:30	17.3	1	20000	20000		07:30	17.3	1	20000	20000
	08:30	25.7	1	20000	20000		08:30	25.7	1	20000	20000
	09:30	33.8	1	20000	20000		09:30	33.8	1	20000	20000
	10:30	41.3	1	20000	20000		10:30	41.3	1	20000	20000
	11:30	47.2	1	20000	20000		11:30	47.2	1	20000	20000
	12:30	50.9	1	20000	20000		12:30	50.9	1	20000	20000
	13:30	51.4	1	20000	20000		13:30	51.4	1	20000	20000
	14:30	48.7	1	20000	20000		14:30	48.7	1	20000	20000
	15:30	43.4	1	20000	20000		15:30	43.4	1	20000	20000
	16:30	36.4	1	20000	20000		16:30	36.4	1	20000	20000
	17:30	28.4	1	20000	20000		17:30	28.4	1	20000	20000
	18:30	20	1	20000	20000		18:30	20	1	20000	20000
	19:30	11.7	1	20000	20000		19:30	11.7	1	20000	20000
	20:30	3.9	1	20000	20000		20:30	3.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 11/May	00:30	0	0	20000	0	Fri, 11/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.7	1	20000	20000		05:30	1.7	1	20000	20000
	06:30	9.3	1	20000	20000		06:30	9.3	1	20000	20000
	07:30	17.5	1	20000	20000		07:30	17.5	1	20000	20000
	08:30	25.9	1	20000	20000		08:30	25.9	1	20000	20000
	09:30	34.1	1	20000	20000		09:30	34.1	1	20000	20000
	10:30	41.5	1	20000	20000		10:30	41.5	1	20000	20000
	11:30	47.5	1	20000	20000		11:30	47.5	1	20000	20000
	12:30	51.2	1	20000	20000		12:30	51.2	1	20000	20000
	13:30	51.7	1	20000	20000		13:30	51.7	1	20000	20000
	14:30	49	1	20000	20000		14:30	49	1	20000	20000
	15:30	43.6	1	20000	20000		15:30	43.6	1	20000	20000
	16:30	36.6	1	20000	20000		16:30	36.6	1	20000	20000
	17:30	28.6	1	20000	20000		17:30	28.6	1	20000	20000
	18:30	20.2	1	20000	20000		18:30	20.2	1	20000	20000
	19:30	11.9	1	20000	20000		19:30	11.9	1	20000	20000

	20:30	4.1	1	20000	20000		20:30	4.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 12/May	00:30	0	0	20000	0	Sat, 12/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.9	1	20000	20000		05:30	1.9	1	20000	20000
	06:30	9.5	1	20000	20000		06:30	9.5	1	20000	20000
	07:30	17.7	1	20000	20000		07:30	17.7	1	20000	20000
	08:30	26.1	1	20000	20000		08:30	26.1	1	20000	20000
	09:30	34.3	1	20000	20000		09:30	34.3	1	20000	20000
	10:30	41.7	1	20000	20000		10:30	41.7	1	20000	20000
	11:30	47.7	1	20000	20000		11:30	47.7	1	20000	20000
	12:30	51.4	1	20000	20000		12:30	51.4	1	20000	20000
	13:30	52	1	20000	20000		13:30	52	1	20000	20000
	14:30	49.2	1	20000	20000		14:30	49.2	1	20000	20000
	15:30	43.9	1	20000	20000		15:30	43.9	1	20000	20000
	16:30	36.8	1	20000	20000		16:30	36.8	1	20000	20000
	17:30	28.8	1	20000	20000		17:30	28.8	1	20000	20000
	18:30	20.4	1	20000	20000		18:30	20.4	1	20000	20000
	19:30	12.1	1	20000	20000		19:30	12.1	1	20000	20000
	20:30	4.3	1	20000	20000		20:30	4.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 13/May	00:30	0	0	20000	0	Sun, 13/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.1	1	20000	20000		05:30	2.1	1	20000	20000
	06:30	9.7	1	20000	20000		06:30	9.7	1	20000	20000
	07:30	17.9	1	20000	20000		07:30	17.9	1	20000	20000
	08:30	26.3	1	20000	20000		08:30	26.3	1	20000	20000
	09:30	34.5	1	20000	20000		09:30	34.5	1	20000	20000
	10:30	41.9	1	20000	20000		10:30	41.9	1	20000	20000
	11:30	48	1	20000	20000		11:30	48	1	20000	20000
	12:30	51.7	1	20000	20000		12:30	51.7	1	20000	20000
	13:30	52.2	1	20000	20000		13:30	52.2	1	20000	20000
	14:30	49.5	1	20000	20000		14:30	49.5	1	20000	20000
	15:30	44.1	1	20000	20000		15:30	44.1	1	20000	20000
	16:30	37	1	20000	20000		16:30	37	1	20000	20000
	17:30	29	1	20000	20000		17:30	29	1	20000	20000
	18:30	20.6	1	20000	20000		18:30	20.6	1	20000	20000
	19:30	12.4	1	20000	20000		19:30	12.4	1	20000	20000
	20:30	4.5	1	20000	20000		20:30	4.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 14/May	00:30	0	0	20000	0	Mon, 14/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.3	1	20000	20000		05:30	2.3	1	20000	20000
	06:30	9.9	1	20000	20000		06:30	9.9	1	20000	20000
	07:30	18.1	1	20000	20000		07:30	18.1	1	20000	20000
	08:30	26.5	1	20000	20000		08:30	26.5	1	20000	20000
	09:30	34.7	1	20000	20000		09:30	34.7	1	20000	20000
	10:30	42.2	1	20000	20000		10:30	42.2	1	20000	20000
	11:30	48.2	1	20000	20000		11:30	48.2	1	20000	20000
	12:30	51.9	1	20000	20000		12:30	51.9	1	20000	20000
	13:30	52.5	1	20000	20000		13:30	52.5	1	20000	20000
	14:30	49.7	1	20000	20000		14:30	49.7	1	20000	20000
	15:30	44.3	1	20000	20000		15:30	44.3	1	20000	20000
	16:30	37.2	1	20000	20000		16:30	37.2	1	20000	20000
	17:30	29.2	1	20000	20000		17:30	29.2	1	20000	20000
	18:30	20.8	1	20000	20000		18:30	20.8	1	20000	20000
	19:30	12.6	1	20000	20000		19:30	12.6	1	20000	20000
	20:30	4.7	1	20000	20000		20:30	4.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 15/May	00:30	0	0	20000	0	Tue, 15/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.5	1	20000	20000		05:30	2.5	1	20000	20000
	06:30	10.1	1	20000	20000		06:30	10.1	1	20000	20000
	07:30	18.3	1	20000	20000		07:30	18.3	1	20000	20000
	08:30	26.7	1	20000	20000		08:30	26.7	1	20000	20000
	09:30	34.9	1	20000	20000		09:30	34.9	1	20000	20000
	10:30	42.4	1	20000	20000		10:30	42.4	1	20000	20000
	11:30	48.4	1	20000	20000		11:30	48.4	1	20000	20000
	12:30	52.1	1	20000	20000		12:30	52.1	1	20000	20000
	13:30	52.7	1	20000	20000		13:30	52.7	1	20000	20000
	14:30	49.9	1	20000	20000		14:30	49.9	1	20000	20000
	15:30	44.5	1	20000	20000		15:30	44.5	1	20000	20000
	16:30	37.4	1	20000	20000		16:30	37.4	1	20000	20000
	17:30	29.4	1	20000	20000		17:30	29.4	1	20000	20000
	18:30	21	1	20000	20000		18:30	21	1	20000	20000
	19:30	12.8	1	20000	20000		19:30	12.8	1	20000	20000
	20:30	4.9	1	20000	20000		20:30	4.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 16/May	00:30	0	0	20000	0	Wed, 16/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.7	1	20000	20000		05:30	2.7	1	20000	20000
	06:30	10.3	1	20000	20000		06:30	10.3	1	20000	20000
	07:30	18.5	1	20000	20000		07:30	18.5	1	20000	20000
	08:30	26.9	1	20000	20000		08:30	26.9	1	20000	20000
	09:30	35.1	1	20000	20000		09:30	35.1	1	20000	20000
	10:30	42.6	1	20000	20000		10:30	42.6	1	20000	20000
	11:30	48.6	1	20000	20000		11:30	48.6	1	20000	20000
	12:30	52.4	1	20000	20000		12:30	52.4	1	20000	20000
	13:30	52.9	1	20000	20000		13:30	52.9	1	20000	20000
	14:30	50.2	1	20000	20000		14:30	50.2	1	20000	20000
	15:30	44.7	1	20000	20000		15:30	44.7	1	20000	20000
	16:30	37.6	1	20000	20000		16:30	37.6	1	20000	20000
	17:30	29.6	1	20000	20000		17:30	29.6	1	20000	20000
	18:30	21.2	1	20000	20000		18:30	21.2	1	20000	20000
	19:30	13	1	20000	20000		19:30	13	1	20000	20000
	20:30	5.1	1	20000	20000		20:30	5.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 17/May	00:30	0	0	20000	0	Thu, 17/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.9	1	20000	20000		05:30	2.9	1	20000	20000
	06:30	10.5	1	20000	20000		06:30	10.5	1	20000	20000
	07:30	18.7	1	20000	20000		07:30	18.7	1	20000	20000
	08:30	27.1	1	20000	20000		08:30	27.1	1	20000	20000
	09:30	35.3	1	20000	20000		09:30	35.3	1	20000	20000
	10:30	42.8	1	20000	20000		10:30	42.8	1	20000	20000
	11:30	48.9	1	20000	20000		11:30	48.9	1	20000	20000
	12:30	52.6	1	20000	20000		12:30	52.6	1	20000	20000

	13:30	53.2	1	20000	20000		13:30	53.2	1	20000	20000
	14:30	50.4	1	20000	20000		14:30	50.4	1	20000	20000
	15:30	45	1	20000	20000		15:30	45	1	20000	20000
	16:30	37.8	1	20000	20000		16:30	37.8	1	20000	20000
	17:30	29.8	1	20000	20000		17:30	29.8	1	20000	20000
	18:30	21.4	1	20000	20000		18:30	21.4	1	20000	20000
	19:30	13.1	1	20000	20000		19:30	13.1	1	20000	20000
	20:30	5.3	1	20000	20000		20:30	5.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 18/May	00:30	0	0	20000	0	Fri, 18/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.1	1	20000	20000		05:30	3.1	1	20000	20000
	06:30	10.7	1	20000	20000		06:30	10.7	1	20000	20000
	07:30	18.9	1	20000	20000		07:30	18.9	1	20000	20000
	08:30	27.3	1	20000	20000		08:30	27.3	1	20000	20000
	09:30	35.5	1	20000	20000		09:30	35.5	1	20000	20000
	10:30	43	1	20000	20000		10:30	43	1	20000	20000
	11:30	49.1	1	20000	20000		11:30	49.1	1	20000	20000
	12:30	52.8	1	20000	20000		12:30	52.8	1	20000	20000
	13:30	53.4	1	20000	20000		13:30	53.4	1	20000	20000
	14:30	50.6	1	20000	20000		14:30	50.6	1	20000	20000
	15:30	45.2	1	20000	20000		15:30	45.2	1	20000	20000
	16:30	38	1	20000	20000		16:30	38	1	20000	20000
	17:30	30	1	20000	20000		17:30	30	1	20000	20000
	18:30	21.6	1	20000	20000		18:30	21.6	1	20000	20000
	19:30	13.3	1	20000	20000		19:30	13.3	1	20000	20000
	20:30	5.5	1	20000	20000		20:30	5.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 19/May	00:30	0	0	20000	0	Sat, 19/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.3	1	20000	20000		05:30	3.3	1	20000	20000
	06:30	10.9	1	20000	20000		06:30	10.9	1	20000	20000
	07:30	19	1	20000	20000		07:30	19	1	20000	20000
	08:30	27.4	1	20000	20000		08:30	27.4	1	20000	20000
	09:30	35.6	1	20000	20000		09:30	35.6	1	20000	20000
	10:30	43.2	1	20000	20000		10:30	43.2	1	20000	20000
	11:30	49.3	1	20000	20000		11:30	49.3	1	20000	20000
	12:30	53	1	20000	20000		12:30	53	1	20000	20000
	13:30	53.6	1	20000	20000		13:30	53.6	1	20000	20000
	14:30	50.8	1	20000	20000		14:30	50.8	1	20000	20000
	15:30	45.4	1	20000	20000		15:30	45.4	1	20000	20000
	16:30	38.2	1	20000	20000		16:30	38.2	1	20000	20000
	17:30	30.2	1	20000	20000		17:30	30.2	1	20000	20000
	18:30	21.8	1	20000	20000		18:30	21.8	1	20000	20000
	19:30	13.5	1	20000	20000		19:30	13.5	1	20000	20000
	20:30	5.7	1	20000	20000		20:30	5.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 20/May	00:30	0	0	20000	0	Sun, 20/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.5	1	20000	20000		05:30	3.5	1	20000	20000
	06:30	11.1	1	20000	20000		06:30	11.1	1	20000	20000
	07:30	19.2	1	20000	20000		07:30	19.2	1	20000	20000
	08:30	27.6	1	20000	20000		08:30	27.6	1	20000	20000
	09:30	35.8	1	20000	20000		09:30	35.8	1	20000	20000
	10:30	43.3	1	20000	20000		10:30	43.3	1	20000	20000
	11:30	49.5	1	20000	20000		11:30	49.5	1	20000	20000
	12:30	53.3	1	20000	20000		12:30	53.3	1	20000	20000
	13:30	53.8	1	20000	20000		13:30	53.8	1	20000	20000
	14:30	51	1	20000	20000		14:30	51	1	20000	20000
	15:30	45.6	1	20000	20000		15:30	45.6	1	20000	20000
	16:30	38.4	1	20000	20000		16:30	38.4	1	20000	20000
	17:30	30.3	1	20000	20000		17:30	30.3	1	20000	20000
	18:30	22	1	20000	20000		18:30	22	1	20000	20000
	19:30	13.7	1	20000	20000		19:30	13.7	1	20000	20000
	20:30	5.9	1	20000	20000		20:30	5.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 21/May	00:30	0	0	20000	0	Mon, 21/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.7	1	20000	20000		05:30	3.7	1	20000	20000
	06:30	11.2	1	20000	20000		06:30	11.2	1	20000	20000
	07:30	19.4	1	20000	20000		07:30	19.4	1	20000	20000
	08:30	27.8	1	20000	20000		08:30	27.8	1	20000	20000
	09:30	36	1	20000	20000		09:30	36	1	20000	20000
	10:30	43.5	1	20000	20000		10:30	43.5	1	20000	20000
	11:30	49.7	1	20000	20000		11:30	49.7	1	20000	20000
	12:30	53.5	1	20000	20000		12:30	53.5	1	20000	20000
	13:30	54	1	20000	20000		13:30	54	1	20000	20000
	14:30	51.2	1	20000	20000		14:30	51.2	1	20000	20000
	15:30	45.7	1	20000	20000		15:30	45.7	1	20000	20000
	16:30	38.6	1	20000	20000		16:30	38.6	1	20000	20000
	17:30	30.5	1	20000	20000		17:30	30.5	1	20000	20000
	18:30	22.1	1	20000	20000		18:30	22.1	1	20000	20000
	19:30	13.9	1	20000	20000		19:30	13.9	1	20000	20000
	20:30	6.1	1	20000	20000		20:30	6.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 22/May	00:30	0	0	20000	0	Tue, 22/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.7	1	20000	20000		05:30	3.7	1	20000	20000
	06:30	11.3	1	20000	20000		06:30	11.3	1	20000	20000
	07:30	19.4	1	20000	20000		07:30	19.4	1	20000	20000
	08:30	27.8	1	20000	20000		08:30	27.8	1	20000	20000
	09:30	36	1	20000	20000		09:30	36	1	20000	20000
	10:30	43.6	1	20000	20000		10:30	43.6	1	20000	20000
	11:30	49.7	1	20000	20000		11:30	49.7	1	20000	20000
	12:30	53.5	1	20000	20000		12:30	53.5	1	20000	20000
	13:30	54.1	1	20000	20000		13:30	54.1	1	20000	20000
	14:30	51.3	1	20000	20000		14:30	51.3	1	20000	20000
	15:30	45.8	1	20000	20000		15:30	45.8	1	20000	20000
	16:30	38.6	1	20000	20000		16:30	38.6	1	20000	20000
	17:30	30.6	1	20000	20000		17:30	30.6	1	20000	20000
	18:30	22.2	1	20000	20000		18:30	22.2	1	20000	20000
	19:30	13.9	1	20000	20000		19:30	13.9	1	20000	20000
	20:30	6.1	1	20000	20000		20:30	6.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 23/May	00:30	0	0	20000	0	Wed, 23/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.9	1	20000	20000		05:30	3.9	1	20000	20000

	06:30	11.4	1	20000	20000		06:30	11.4	1	20000	20000
	07:30	19.6	1	20000	20000		07:30	19.6	1	20000	20000
	08:30	27.9	1	20000	20000		08:30	27.9	1	20000	20000
	09:30	36.2	1	20000	20000		09:30	36.2	1	20000	20000
	10:30	43.7	1	20000	20000		10:30	43.7	1	20000	20000
	11:30	49.9	1	20000	20000		11:30	49.9	1	20000	20000
	12:30	53.7	1	20000	20000		12:30	53.7	1	20000	20000
	13:30	54.3	1	20000	20000		13:30	54.3	1	20000	20000
	14:30	51.5	1	20000	20000		14:30	51.5	1	20000	20000
	15:30	46	1	20000	20000		15:30	46	1	20000	20000
	16:30	38.8	1	20000	20000		16:30	38.8	1	20000	20000
	17:30	30.7	1	20000	20000		17:30	30.7	1	20000	20000
	18:30	22.4	1	20000	20000		18:30	22.4	1	20000	20000
	19:30	14.1	1	20000	20000		19:30	14.1	1	20000	20000
	20:30	6.3	1	20000	20000		20:30	6.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 24/May	00:30	0	0	20000	0	Thu, 24/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4	1	20000	20000		05:30	4	1	20000	20000
	06:30	11.6	1	20000	20000		06:30	11.6	1	20000	20000
	07:30	19.7	1	20000	20000		07:30	19.7	1	20000	20000
	08:30	28.1	1	20000	20000		08:30	28.1	1	20000	20000
	09:30	36.3	1	20000	20000		09:30	36.3	1	20000	20000
	10:30	43.9	1	20000	20000		10:30	43.9	1	20000	20000
	11:30	50.1	1	20000	20000		11:30	50.1	1	20000	20000
	12:30	53.9	1	20000	20000		12:30	53.9	1	20000	20000
	13:30	54.5	1	20000	20000		13:30	54.5	1	20000	20000
	14:30	51.7	1	20000	20000		14:30	51.7	1	20000	20000
	15:30	46.2	1	20000	20000		15:30	46.2	1	20000	20000
	16:30	39	1	20000	20000		16:30	39	1	20000	20000
	17:30	30.9	1	20000	20000		17:30	30.9	1	20000	20000
	18:30	22.5	1	20000	20000		18:30	22.5	1	20000	20000
	19:30	14.3	1	20000	20000		19:30	14.3	1	20000	20000
	20:30	6.5	1	20000	20000		20:30	6.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 25/May	00:30	0	0	20000	0	Fri, 25/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.2	1	20000	20000		05:30	4.2	1	20000	20000
	06:30	11.7	1	20000	20000		06:30	11.7	1	20000	20000
	07:30	19.8	1	20000	20000		07:30	19.8	1	20000	20000
	08:30	28.2	1	20000	20000		08:30	28.2	1	20000	20000
	09:30	36.5	1	20000	20000		09:30	36.5	1	20000	20000
	10:30	44	1	20000	20000		10:30	44	1	20000	20000
	11:30	50.2	1	20000	20000		11:30	50.2	1	20000	20000
	12:30	54.1	1	20000	20000		12:30	54.1	1	20000	20000
	13:30	54.7	1	20000	20000		13:30	54.7	1	20000	20000
	14:30	51.9	1	20000	20000		14:30	51.9	1	20000	20000
	15:30	46.3	1	20000	20000		15:30	46.3	1	20000	20000
	16:30	39.1	1	20000	20000		16:30	39.1	1	20000	20000
	17:30	31.1	1	20000	20000		17:30	31.1	1	20000	20000
	18:30	22.7	1	20000	20000		18:30	22.7	1	20000	20000
	19:30	14.4	1	20000	20000		19:30	14.4	1	20000	20000
	20:30	6.7	1	20000	20000		20:30	6.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 26/May	00:30	0	0	20000	0	Sat, 26/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.3	1	20000	20000		05:30	4.3	1	20000	20000
	06:30	11.8	1	20000	20000		06:30	11.8	1	20000	20000
	07:30	20	1	20000	20000		07:30	20	1	20000	20000
	08:30	28.4	1	20000	20000		08:30	28.4	1	20000	20000
	09:30	36.6	1	20000	20000		09:30	36.6	1	20000	20000
	10:30	44.2	1	20000	20000		10:30	44.2	1	20000	20000
	11:30	50.4	1	20000	20000		11:30	50.4	1	20000	20000
	12:30	54.2	1	20000	20000		12:30	54.2	1	20000	20000
	13:30	54.9	1	20000	20000		13:30	54.9	1	20000	20000
	14:30	52	1	20000	20000		14:30	52	1	20000	20000
	15:30	46.5	1	20000	20000		15:30	46.5	1	20000	20000
	16:30	39.3	1	20000	20000		16:30	39.3	1	20000	20000
	17:30	31.2	1	20000	20000		17:30	31.2	1	20000	20000
	18:30	22.9	1	20000	20000		18:30	22.9	1	20000	20000
	19:30	14.6	1	20000	20000		19:30	14.6	1	20000	20000
	20:30	6.8	1	20000	20000		20:30	6.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 27/May	00:30	0	0	20000	0	Sun, 27/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.5	1	20000	20000		05:30	4.5	1	20000	20000
	06:30	12	1	20000	20000		06:30	12	1	20000	20000
	07:30	20.1	1	20000	20000		07:30	20.1	1	20000	20000
	08:30	28.5	1	20000	20000		08:30	28.5	1	20000	20000
	09:30	36.7	1	20000	20000		09:30	36.7	1	20000	20000
	10:30	44.3	1	20000	20000		10:30	44.3	1	20000	20000
	11:30	50.5	1	20000	20000		11:30	50.5	1	20000	20000
	12:30	54.4	1	20000	20000		12:30	54.4	1	20000	20000
	13:30	55	1	20000	20000		13:30	55	1	20000	20000
	14:30	52.2	1	20000	20000		14:30	52.2	1	20000	20000
	15:30	46.7	1	20000	20000		15:30	46.7	1	20000	20000
	16:30	39.5	1	20000	20000		16:30	39.5	1	20000	20000
	17:30	31.4	1	20000	20000		17:30	31.4	1	20000	20000
	18:30	23	1	20000	20000		18:30	23	1	20000	20000
	19:30	14.8	1	20000	20000		19:30	14.8	1	20000	20000
	20:30	7	1	20000	20000		20:30	7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 28/May	00:30	0	0	20000	0	Mon, 28/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.6	1	20000	20000		05:30	4.6	1	20000	20000
	06:30	12.1	1	20000	20000		06:30	12.1	1	20000	20000
	07:30	20.2	1	20000	20000		07:30	20.2	1	20000	20000
	08:30	28.6	1	20000	20000		08:30	28.6	1	20000	20000
	09:30	36.8	1	20000	20000		09:30	36.8	1	20000	20000
	10:30	44.4	1	20000	20000		10:30	44.4	1	20000	20000
	11:30	50.7	1	20000	20000		11:30	50.7	1	20000	20000
	12:30	54.6	1	20000	20000		12:30	54.6	1	20000	20000
	13:30	55.2	1	20000	20000		13:30	55.2	1	20000	20000
	14:30	52.4	1	20000	20000		14:30	52.4	1	20000	20000
	15:30	46.8	1	20000	20000		15:30	46.8	1	20000	20000
	16:30	39.6	1	20000	20000		16:30	39.6	1	20000	20000
	17:30	31.5	1	20000	20000		17:30	31.5	1	20000	20000
	18:30	23.2	1	20000	20000		18:30	23.2	1	20000	20000
	19:30	14.9	1	20000	20000		19:30	14.9	1	20000	20000
	20:30	7.1	1	20000	20000		20:30	7.1	1	20000	20000
	21:30	0.2	1	20000	20000		21:30	0.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0

	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 29/May	00:30	0	0	20000	0	Tue, 29/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.7	1	20000	20000		05:30	4.7	1	20000	20000
	06:30	12.2	1	20000	20000		06:30	12.2	1	20000	20000
	07:30	20.3	1	20000	20000		07:30	20.3	1	20000	20000
	08:30	28.7	1	20000	20000		08:30	28.7	1	20000	20000
	09:30	37	1	20000	20000		09:30	37	1	20000	20000
	10:30	44.6	1	20000	20000		10:30	44.6	1	20000	20000
	11:30	50.8	1	20000	20000		11:30	50.8	1	20000	20000
	12:30	54.7	1	20000	20000		12:30	54.7	1	20000	20000
	13:30	55.4	1	20000	20000		13:30	55.4	1	20000	20000
	14:30	52.5	1	20000	20000		14:30	52.5	1	20000	20000
	15:30	47	1	20000	20000		15:30	47	1	20000	20000
	16:30	39.8	1	20000	20000		16:30	39.8	1	20000	20000
	17:30	31.7	1	20000	20000		17:30	31.7	1	20000	20000
	18:30	23.3	1	20000	20000		18:30	23.3	1	20000	20000
	19:30	15.1	1	20000	20000		19:30	15.1	1	20000	20000
	20:30	7.3	1	20000	20000		20:30	7.3	1	20000	20000
	21:30	0.4	1	20000	20000		21:30	0.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 30/May	00:30	0	0	20000	0	Wed, 30/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.8	1	20000	20000		05:30	4.8	1	20000	20000
	06:30	12.3	1	20000	20000		06:30	12.3	1	20000	20000
	07:30	20.4	1	20000	20000		07:30	20.4	1	20000	20000
	08:30	28.8	1	20000	20000		08:30	28.8	1	20000	20000
	09:30	37.1	1	20000	20000		09:30	37.1	1	20000	20000
	10:30	44.7	1	20000	20000		10:30	44.7	1	20000	20000
	11:30	51	1	20000	20000		11:30	51	1	20000	20000
	12:30	54.9	1	20000	20000		12:30	54.9	1	20000	20000
	13:30	55.5	1	20000	20000		13:30	55.5	1	20000	20000
	14:30	52.7	1	20000	20000		14:30	52.7	1	20000	20000
	15:30	47.2	1	20000	20000		15:30	47.2	1	20000	20000
	16:30	39.9	1	20000	20000		16:30	39.9	1	20000	20000
	17:30	31.8	1	20000	20000		17:30	31.8	1	20000	20000
	18:30	23.5	1	20000	20000		18:30	23.5	1	20000	20000
	19:30	15.2	1	20000	20000		19:30	15.2	1	20000	20000
	20:30	7.4	1	20000	20000		20:30	7.4	1	20000	20000
	21:30	0.5	1	20000	20000		21:30	0.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 31/May	00:30	0	0	20000	0	Thu, 31/May	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.9	1	20000	20000		05:30	4.9	1	20000	20000
	06:30	12.4	1	20000	20000		06:30	12.4	1	20000	20000
	07:30	20.5	1	20000	20000		07:30	20.5	1	20000	20000
	08:30	28.9	1	20000	20000		08:30	28.9	1	20000	20000
	09:30	37.2	1	20000	20000		09:30	37.2	1	20000	20000
	10:30	44.8	1	20000	20000		10:30	44.8	1	20000	20000
	11:30	51.1	1	20000	20000		11:30	51.1	1	20000	20000
	12:30	55	1	20000	20000		12:30	55	1	20000	20000
	13:30	55.7	1	20000	20000		13:30	55.7	1	20000	20000
	14:30	52.9	1	20000	20000		14:30	52.9	1	20000	20000
	15:30	47.3	1	20000	20000		15:30	47.3	1	20000	20000
	16:30	40.1	1	20000	20000		16:30	40.1	1	20000	20000
	17:30	32	1	20000	20000		17:30	32	1	20000	20000
	18:30	23.6	1	20000	20000		18:30	23.6	1	20000	20000
	19:30	15.4	1	20000	20000		19:30	15.4	1	20000	20000
	20:30	7.6	1	20000	20000		20:30	7.6	1	20000	20000
	21:30	0.7	1	20000	20000		21:30	0.7	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 01/Jun	00:30	0	0	20000	0	Fri, 01/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5	1	20000	20000		05:30	5	1	20000	20000
	06:30	12.5	1	20000	20000		06:30	12.5	1	20000	20000
	07:30	20.6	1	20000	20000		07:30	20.6	1	20000	20000
	08:30	29	1	20000	20000		08:30	29	1	20000	20000
	09:30	37.3	1	20000	20000		09:30	37.3	1	20000	20000
	10:30	44.9	1	20000	20000		10:30	44.9	1	20000	20000
	11:30	51.2	1	20000	20000		11:30	51.2	1	20000	20000
	12:30	55.2	1	20000	20000		12:30	55.2	1	20000	20000
	13:30	55.8	1	20000	20000		13:30	55.8	1	20000	20000
	14:30	53	1	20000	20000		14:30	53	1	20000	20000
	15:30	47.4	1	20000	20000		15:30	47.4	1	20000	20000
	16:30	40.2	1	20000	20000		16:30	40.2	1	20000	20000
	17:30	32.1	1	20000	20000		17:30	32.1	1	20000	20000
	18:30	23.7	1	20000	20000		18:30	23.7	1	20000	20000
	19:30	15.5	1	20000	20000		19:30	15.5	1	20000	20000
	20:30	7.7	1	20000	20000		20:30	7.7	1	20000	20000
	21:30	0.8	1	20000	20000		21:30	0.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 02/Jun	00:30	0	0	20000	0	Sat, 02/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.1	1	20000	20000		05:30	5.1	1	20000	20000
	06:30	12.6	1	20000	20000		06:30	12.6	1	20000	20000
	07:30	20.7	1	20000	20000		07:30	20.7	1	20000	20000
	08:30	29.1	1	20000	20000		08:30	29.1	1	20000	20000
	09:30	37.4	1	20000	20000		09:30	37.4	1	20000	20000
	10:30	45	1	20000	20000		10:30	45	1	20000	20000
	11:30	51.3	1	20000	20000		11:30	51.3	1	20000	20000
	12:30	55.3	1	20000	20000		12:30	55.3	1	20000	20000
	13:30	56	1	20000	20000		13:30	56	1	20000	20000
	14:30	53.1	1	20000	20000		14:30	53.1	1	20000	20000
	15:30	47.6	1	20000	20000		15:30	47.6	1	20000	20000
	16:30	40.3	1	20000	20000		16:30	40.3	1	20000	20000
	17:30	32.2	1	20000	20000		17:30	32.2	1	20000	20000
	18:30	23.9	1	20000	20000		18:30	23.9	1	20000	20000
	19:30	15.6	1	20000	20000		19:30	15.6	1	20000	20000
	20:30	7.9	1	20000	20000		20:30	7.9	1	20000	20000
	21:30	0.9	1	20000	20000		21:30	0.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 03/Jun	00:30	0	0	20000	0	Sun, 03/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.2	1	20000	20000		05:30	5.2	1	20000	20000
	06:30	12.7	1	20000	20000		06:30	12.7	1	20000	20000
	07:30	20.8	1	20000	20000		07:30	20.8	1	20000	20000
	08:30	29.2	1	20000	20000		08:30	29.2	1	20000	20000
	09:30	37.4	1	20000	20000		09:30	37.4	1	20000	20000
	10:30	45.1	1	20000	20000		10:30	45.1	1	20000	20000
	11:30	51.4	1	20000	20000		11:30	51.4	1	20000	20000
	12:30	55.4	1	20000	20000		12:30	55.4	1	20000	20000
	13:30	56.1	1	20000	20000		13:30	56.1	1	20000	20000
	14:30	53.3	1	20000	20000		14:30	53.3	1	20000	20000
	15:30	47.7	1	20000	20000		15:30	47.7	1	20000	20000

	16:30	40.5	1	20000	20000		16:30	40.5	1	20000	20000
	17:30	32.4	1	20000	20000		17:30	32.4	1	20000	20000
	18:30	24	1	20000	20000		18:30	24	1	20000	20000
	19:30	15.7	1	20000	20000		19:30	15.7	1	20000	20000
	20:30	8	1	20000	20000		20:30	8	1	20000	20000
	21:30	1.1	1	20000	20000		21:30	1.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 04/Jun	00:30	0	0	20000	0	Mon, 04/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.3	1	20000	20000		05:30	5.3	1	20000	20000
	06:30	12.8	1	20000	20000		06:30	12.8	1	20000	20000
	07:30	20.9	1	20000	20000		07:30	20.9	1	20000	20000
	08:30	29.3	1	20000	20000		08:30	29.3	1	20000	20000
	09:30	37.5	1	20000	20000		09:30	37.5	1	20000	20000
	10:30	45.2	1	20000	20000		10:30	45.2	1	20000	20000
	11:30	51.5	1	20000	20000		11:30	51.5	1	20000	20000
	12:30	55.5	1	20000	20000		12:30	55.5	1	20000	20000
	13:30	56.2	1	20000	20000		13:30	56.2	1	20000	20000
	14:30	53.4	1	20000	20000		14:30	53.4	1	20000	20000
	15:30	47.8	1	20000	20000		15:30	47.8	1	20000	20000
	16:30	40.6	1	20000	20000		16:30	40.6	1	20000	20000
	17:30	32.5	1	20000	20000		17:30	32.5	1	20000	20000
	18:30	24.1	1	20000	20000		18:30	24.1	1	20000	20000
	19:30	15.9	1	20000	20000		19:30	15.9	1	20000	20000
	20:30	8.1	1	20000	20000		20:30	8.1	1	20000	20000
	21:30	1.2	1	20000	20000		21:30	1.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 05/Jun	00:30	0	0	20000	0	Tue, 05/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.4	1	20000	20000		05:30	5.4	1	20000	20000
	06:30	12.9	1	20000	20000		06:30	12.9	1	20000	20000
	07:30	21	1	20000	20000		07:30	21	1	20000	20000
	08:30	29.3	1	20000	20000		08:30	29.3	1	20000	20000
	09:30	37.6	1	20000	20000		09:30	37.6	1	20000	20000
	10:30	45.3	1	20000	20000		10:30	45.3	1	20000	20000
	11:30	51.6	1	20000	20000		11:30	51.6	1	20000	20000
	12:30	55.6	1	20000	20000		12:30	55.6	1	20000	20000
	13:30	56.3	1	20000	20000		13:30	56.3	1	20000	20000
	14:30	53.5	1	20000	20000		14:30	53.5	1	20000	20000
	15:30	48	1	20000	20000		15:30	48	1	20000	20000
	16:30	40.7	1	20000	20000		16:30	40.7	1	20000	20000
	17:30	32.6	1	20000	20000		17:30	32.6	1	20000	20000
	18:30	24.2	1	20000	20000		18:30	24.2	1	20000	20000
	19:30	16	1	20000	20000		19:30	16	1	20000	20000
	20:30	8.2	1	20000	20000		20:30	8.2	1	20000	20000
	21:30	1.3	1	20000	20000		21:30	1.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 06/Jun	00:30	0	0	20000	0	Wed, 06/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.5	1	20000	20000		05:30	5.5	1	20000	20000
	06:30	12.9	1	20000	20000		06:30	12.9	1	20000	20000
	07:30	21	1	20000	20000		07:30	21	1	20000	20000
	08:30	29.4	1	20000	20000		08:30	29.4	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.3	1	20000	20000		10:30	45.3	1	20000	20000
	11:30	51.7	1	20000	20000		11:30	51.7	1	20000	20000
	12:30	55.7	1	20000	20000		12:30	55.7	1	20000	20000
	13:30	56.5	1	20000	20000		13:30	56.5	1	20000	20000
	14:30	53.7	1	20000	20000		14:30	53.7	1	20000	20000
	15:30	48.1	1	20000	20000		15:30	48.1	1	20000	20000
	16:30	40.8	1	20000	20000		16:30	40.8	1	20000	20000
	17:30	32.7	1	20000	20000		17:30	32.7	1	20000	20000
	18:30	24.3	1	20000	20000		18:30	24.3	1	20000	20000
	19:30	16.1	1	20000	20000		19:30	16.1	1	20000	20000
	20:30	8.4	1	20000	20000		20:30	8.4	1	20000	20000
	21:30	1.4	1	20000	20000		21:30	1.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 07/Jun	00:30	0	0	20000	0	Thu, 07/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.6	1	20000	20000		05:30	5.6	1	20000	20000
	06:30	13	1	20000	20000		06:30	13	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.4	1	20000	20000		10:30	45.4	1	20000	20000
	11:30	51.8	1	20000	20000		11:30	51.8	1	20000	20000
	12:30	55.8	1	20000	20000		12:30	55.8	1	20000	20000
	13:30	56.6	1	20000	20000		13:30	56.6	1	20000	20000
	14:30	53.8	1	20000	20000		14:30	53.8	1	20000	20000
	15:30	48.2	1	20000	20000		15:30	48.2	1	20000	20000
	16:30	40.9	1	20000	20000		16:30	40.9	1	20000	20000
	17:30	32.8	1	20000	20000		17:30	32.8	1	20000	20000
	18:30	24.5	1	20000	20000		18:30	24.5	1	20000	20000
	19:30	16.2	1	20000	20000		19:30	16.2	1	20000	20000
	20:30	8.5	1	20000	20000		20:30	8.5	1	20000	20000
	21:30	1.6	1	20000	20000		21:30	1.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 08/Jun	00:30	0	0	20000	0	Fri, 08/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.6	1	20000	20000		05:30	5.6	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	51.9	1	20000	20000		11:30	51.9	1	20000	20000
	12:30	55.9	1	20000	20000		12:30	55.9	1	20000	20000
	13:30	56.7	1	20000	20000		13:30	56.7	1	20000	20000
	14:30	53.9	1	20000	20000		14:30	53.9	1	20000	20000
	15:30	48.3	1	20000	20000		15:30	48.3	1	20000	20000
	16:30	41	1	20000	20000		16:30	41	1	20000	20000
	17:30	32.9	1	20000	20000		17:30	32.9	1	20000	20000
	18:30	24.6	1	20000	20000		18:30	24.6	1	20000	20000
	19:30	16.3	1	20000	20000		19:30	16.3	1	20000	20000
	20:30	8.6	1	20000	20000		20:30	8.6	1	20000	20000
	21:30	1.7	1	20000	20000		21:30	1.7	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 09/Jun	00:30	0	0	20000	0	Sat, 09/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000

	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	51.9	1	20000	20000		11:30	51.9	1	20000	20000
	12:30	56	1	20000	20000		12:30	56	1	20000	20000
	13:30	56.8	1	20000	20000		13:30	56.8	1	20000	20000
	14:30	54	1	20000	20000		14:30	54	1	20000	20000
	15:30	48.4	1	20000	20000		15:30	48.4	1	20000	20000
	16:30	41.1	1	20000	20000		16:30	41.1	1	20000	20000
	17:30	33	1	20000	20000		17:30	33	1	20000	20000
	18:30	24.7	1	20000	20000		18:30	24.7	1	20000	20000
	19:30	16.4	1	20000	20000		19:30	16.4	1	20000	20000
	20:30	8.7	1	20000	20000		20:30	8.7	1	20000	20000
	21:30	1.8	1	20000	20000		21:30	1.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 10/Jun	00:30	0	0	20000	0	Sun, 10/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.1	1	20000	20000		12:30	56.1	1	20000	20000
	13:30	56.9	1	20000	20000		13:30	56.9	1	20000	20000
	14:30	54.1	1	20000	20000		14:30	54.1	1	20000	20000
	15:30	48.5	1	20000	20000		15:30	48.5	1	20000	20000
	16:30	41.2	1	20000	20000		16:30	41.2	1	20000	20000
	17:30	33.1	1	20000	20000		17:30	33.1	1	20000	20000
	18:30	24.7	1	20000	20000		18:30	24.7	1	20000	20000
	19:30	16.5	1	20000	20000		19:30	16.5	1	20000	20000
	20:30	8.8	1	20000	20000		20:30	8.8	1	20000	20000
	21:30	1.9	1	20000	20000		21:30	1.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 11/Jun	00:30	0	0	20000	0	Mon, 11/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.1	1	20000	20000		12:30	56.1	1	20000	20000
	13:30	56.9	1	20000	20000		13:30	56.9	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.6	1	20000	20000		15:30	48.6	1	20000	20000
	16:30	41.3	1	20000	20000		16:30	41.3	1	20000	20000
	17:30	33.2	1	20000	20000		17:30	33.2	1	20000	20000
	18:30	24.8	1	20000	20000		18:30	24.8	1	20000	20000
	19:30	16.6	1	20000	20000		19:30	16.6	1	20000	20000
	20:30	8.9	1	20000	20000		20:30	8.9	1	20000	20000
	21:30	1.9	1	20000	20000		21:30	1.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 12/Jun	00:30	0	0	20000	0	Tue, 12/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000
	12:30	56.2	1	20000	20000		12:30	56.2	1	20000	20000
	13:30	57	1	20000	20000		13:30	57	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.7	1	20000	20000		15:30	48.7	1	20000	20000
	16:30	41.4	1	20000	20000		16:30	41.4	1	20000	20000
	17:30	33.3	1	20000	20000		17:30	33.3	1	20000	20000
	18:30	24.9	1	20000	20000		18:30	24.9	1	20000	20000
	19:30	16.7	1	20000	20000		19:30	16.7	1	20000	20000
	20:30	8.9	1	20000	20000		20:30	8.9	1	20000	20000
	21:30	2	1	20000	20000		21:30	2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 13/Jun	00:30	0	0	20000	0	Wed, 13/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.3	1	20000	20000		14:30	54.3	1	20000	20000
	15:30	48.8	1	20000	20000		15:30	48.8	1	20000	20000
	16:30	41.5	1	20000	20000		16:30	41.5	1	20000	20000
	17:30	33.4	1	20000	20000		17:30	33.4	1	20000	20000
	18:30	25	1	20000	20000		18:30	25	1	20000	20000
	19:30	16.8	1	20000	20000		19:30	16.8	1	20000	20000
	20:30	9	1	20000	20000		20:30	9	1	20000	20000
	21:30	2.1	1	20000	20000		21:30	2.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 14/Jun	00:30	0	0	20000	0	Thu, 14/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.4	1	20000	20000		14:30	54.4	1	20000	20000
	15:30	48.8	1	20000	20000		15:30	48.8	1	20000	20000
	16:30	41.6	1	20000	20000		16:30	41.6	1	20000	20000
	17:30	33.5	1	20000	20000		17:30	33.5	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.8	1	20000	20000		19:30	16.8	1	20000	20000
	20:30	9.1	1	20000	20000		20:30	9.1	1	20000	20000
	21:30	2.2	1	20000	20000		21:30	2.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 15/Jun	00:30	0	0	20000	0	Fri, 15/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0

	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.4	1	20000	20000		14:30	54.4	1	20000	20000
	15:30	48.9	1	20000	20000		15:30	48.9	1	20000	20000
	16:30	41.6	1	20000	20000		16:30	41.6	1	20000	20000
	17:30	33.5	1	20000	20000		17:30	33.5	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.9	1	20000	20000		19:30	16.9	1	20000	20000
	20:30	9.2	1	20000	20000		20:30	9.2	1	20000	20000
	21:30	2.3	1	20000	20000		21:30	2.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 16/Jun	00:30	0	0	20000	0	Sat, 16/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.4	1	20000	20000		07:30	21.4	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.5	1	20000	20000		14:30	54.5	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.7	1	20000	20000		16:30	41.7	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.2	1	20000	20000		18:30	25.2	1	20000	20000
	19:30	17	1	20000	20000		19:30	17	1	20000	20000
	20:30	9.2	1	20000	20000		20:30	9.2	1	20000	20000
	21:30	2.3	1	20000	20000		21:30	2.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 17/Jun	00:30	0	0	20000	0	Sun, 17/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.4	1	20000	20000		07:30	21.4	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.8	1	20000	20000		10:30	45.8	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17	1	20000	20000		19:30	17	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 18/Jun	00:30	0	0	20000	0	Mon, 18/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.4	1	20000	20000		07:30	21.4	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.8	1	20000	20000		10:30	45.8	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 19/Jun	00:30	0	0	20000	0	Tue, 19/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 20/Jun	00:30	0	0	20000	0	Wed, 20/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000

	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 21/Jun	00:30	0	0	20000	0	Thu, 21/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.3	1	20000	20000		06:30	13.3	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.7	1	20000	20000		08:30	29.7	1	20000	20000
	09:30	38	1	20000	20000		09:30	38	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 22/Jun	00:30	0	0	20000	0	Fri, 22/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.9	1	20000	20000		05:30	5.9	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.3	1	20000	20000		07:30	21.3	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.5	1	20000	20000		12:30	56.5	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 23/Jun	00:30	0	0	20000	0	Sat, 23/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.7	1	20000	20000		10:30	45.7	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 24/Jun	00:30	0	0	20000	0	Sun, 24/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.2	1	20000	20000		06:30	13.2	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.6	1	20000	20000		08:30	29.6	1	20000	20000
	09:30	37.9	1	20000	20000		09:30	37.9	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52.2	1	20000	20000		11:30	52.2	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 25/Jun	00:30	0	0	20000	0	Mon, 25/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.8	1	20000	20000		05:30	5.8	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.2	1	20000	20000		07:30	21.2	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.6	1	20000	20000		10:30	45.6	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000
	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.4	1	20000	20000		13:30	57.4	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 26/Jun	00:30	0	0	20000	0	Tue, 26/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13.1	1	20000	20000		06:30	13.1	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.5	1	20000	20000		08:30	29.5	1	20000	20000
	09:30	37.8	1	20000	20000		09:30	37.8	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	52.1	1	20000	20000		11:30	52.1	1	20000	20000

	12:30	56.4	1	20000	20000		12:30	56.4	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.6	1	20000	20000		18:30	25.6	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 27/Jun	00:30	0	0	20000	0	Wed, 27/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.7	1	20000	20000		05:30	5.7	1	20000	20000
	06:30	13	1	20000	20000		06:30	13	1	20000	20000
	07:30	21.1	1	20000	20000		07:30	21.1	1	20000	20000
	08:30	29.4	1	20000	20000		08:30	29.4	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.5	1	20000	20000		10:30	45.5	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.6	1	20000	20000		18:30	25.6	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 28/Jun	00:30	0	0	20000	0	Thu, 28/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.6	1	20000	20000		05:30	5.6	1	20000	20000
	06:30	13	1	20000	20000		06:30	13	1	20000	20000
	07:30	21	1	20000	20000		07:30	21	1	20000	20000
	08:30	29.4	1	20000	20000		08:30	29.4	1	20000	20000
	09:30	37.7	1	20000	20000		09:30	37.7	1	20000	20000
	10:30	45.4	1	20000	20000		10:30	45.4	1	20000	20000
	11:30	52	1	20000	20000		11:30	52	1	20000	20000
	12:30	56.3	1	20000	20000		12:30	56.3	1	20000	20000
	13:30	57.3	1	20000	20000		13:30	57.3	1	20000	20000
	14:30	54.7	1	20000	20000		14:30	54.7	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.6	1	20000	20000		18:30	25.6	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 29/Jun	00:30	0	0	20000	0	Fri, 29/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.5	1	20000	20000		05:30	5.5	1	20000	20000
	06:30	12.9	1	20000	20000		06:30	12.9	1	20000	20000
	07:30	20.9	1	20000	20000		07:30	20.9	1	20000	20000
	08:30	29.3	1	20000	20000		08:30	29.3	1	20000	20000
	09:30	37.6	1	20000	20000		09:30	37.6	1	20000	20000
	10:30	45.4	1	20000	20000		10:30	45.4	1	20000	20000
	11:30	51.9	1	20000	20000		11:30	51.9	1	20000	20000
	12:30	56.2	1	20000	20000		12:30	56.2	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.6	1	20000	20000		21:30	2.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 30/Jun	00:30	0	0	20000	0	Sat, 30/Jun	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.5	1	20000	20000		05:30	5.5	1	20000	20000
	06:30	12.8	1	20000	20000		06:30	12.8	1	20000	20000
	07:30	20.9	1	20000	20000		07:30	20.9	1	20000	20000
	08:30	29.2	1	20000	20000		08:30	29.2	1	20000	20000
	09:30	37.5	1	20000	20000		09:30	37.5	1	20000	20000
	10:30	45.3	1	20000	20000		10:30	45.3	1	20000	20000
	11:30	51.8	1	20000	20000		11:30	51.8	1	20000	20000
	12:30	56.2	1	20000	20000		12:30	56.2	1	20000	20000
	13:30	57.2	1	20000	20000		13:30	57.2	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.2	1	20000	20000		15:30	49.2	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 01/Jul	00:30	0	0	20000	0	Sun, 01/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.4	1	20000	20000		05:30	5.4	1	20000	20000
	06:30	12.8	1	20000	20000		06:30	12.8	1	20000	20000
	07:30	20.8	1	20000	20000		07:30	20.8	1	20000	20000
	08:30	29.2	1	20000	20000		08:30	29.2	1	20000	20000
	09:30	37.5	1	20000	20000		09:30	37.5	1	20000	20000
	10:30	45.2	1	20000	20000		10:30	45.2	1	20000	20000
	11:30	51.8	1	20000	20000		11:30	51.8	1	20000	20000
	12:30	56.1	1	20000	20000		12:30	56.1	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.6	1	20000	20000		14:30	54.6	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	42	1	20000	20000		16:30	42	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.3	1	20000	20000		19:30	17.3	1	20000	20000
	20:30	9.5	1	20000	20000		20:30	9.5	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 02/Jul	00:30	0	0	20000	0	Mon, 02/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0

	05:30	5.3	1	20000	20000		05:30	5.3	1	20000	20000
	06:30	12.7	1	20000	20000		06:30	12.7	1	20000	20000
	07:30	20.7	1	20000	20000		07:30	20.7	1	20000	20000
	08:30	29.1	1	20000	20000		08:30	29.1	1	20000	20000
	09:30	37.4	1	20000	20000		09:30	37.4	1	20000	20000
	10:30	45.2	1	20000	20000		10:30	45.2	1	20000	20000
	11:30	51.7	1	20000	20000		11:30	51.7	1	20000	20000
	12:30	56	1	20000	20000		12:30	56	1	20000	20000
	13:30	57.1	1	20000	20000		13:30	57.1	1	20000	20000
	14:30	54.5	1	20000	20000		14:30	54.5	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.9	1	20000	20000		17:30	33.9	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.5	1	20000	20000		21:30	2.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 03/Jul	00:30	0	0	20000	0	Tue, 03/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.2	1	20000	20000		05:30	5.2	1	20000	20000
	06:30	12.6	1	20000	20000		06:30	12.6	1	20000	20000
	07:30	20.6	1	20000	20000		07:30	20.6	1	20000	20000
	08:30	29	1	20000	20000		08:30	29	1	20000	20000
	09:30	37.3	1	20000	20000		09:30	37.3	1	20000	20000
	10:30	45.1	1	20000	20000		10:30	45.1	1	20000	20000
	11:30	51.6	1	20000	20000		11:30	51.6	1	20000	20000
	12:30	55.9	1	20000	20000		12:30	55.9	1	20000	20000
	13:30	57	1	20000	20000		13:30	57	1	20000	20000
	14:30	54.5	1	20000	20000		14:30	54.5	1	20000	20000
	15:30	49.1	1	20000	20000		15:30	49.1	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.5	1	20000	20000		18:30	25.5	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 04/Jul	00:30	0	0	20000	0	Wed, 04/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.2	1	20000	20000		05:30	5.2	1	20000	20000
	06:30	12.5	1	20000	20000		06:30	12.5	1	20000	20000
	07:30	20.5	1	20000	20000		07:30	20.5	1	20000	20000
	08:30	28.9	1	20000	20000		08:30	28.9	1	20000	20000
	09:30	37.2	1	20000	20000		09:30	37.2	1	20000	20000
	10:30	45	1	20000	20000		10:30	45	1	20000	20000
	11:30	51.5	1	20000	20000		11:30	51.5	1	20000	20000
	12:30	55.8	1	20000	20000		12:30	55.8	1	20000	20000
	13:30	56.9	1	20000	20000		13:30	56.9	1	20000	20000
	14:30	54.4	1	20000	20000		14:30	54.4	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.9	1	20000	20000		16:30	41.9	1	20000	20000
	17:30	33.8	1	20000	20000		17:30	33.8	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000
	19:30	17.2	1	20000	20000		19:30	17.2	1	20000	20000
	20:30	9.4	1	20000	20000		20:30	9.4	1	20000	20000
	21:30	2.4	1	20000	20000		21:30	2.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 05/Jul	00:30	0	0	20000	0	Thu, 05/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5.1	1	20000	20000		05:30	5.1	1	20000	20000
	06:30	12.4	1	20000	20000		06:30	12.4	1	20000	20000
	07:30	20.5	1	20000	20000		07:30	20.5	1	20000	20000
	08:30	28.8	1	20000	20000		08:30	28.8	1	20000	20000
	09:30	37.1	1	20000	20000		09:30	37.1	1	20000	20000
	10:30	44.9	1	20000	20000		10:30	44.9	1	20000	20000
	11:30	51.4	1	20000	20000		11:30	51.4	1	20000	20000
	12:30	55.8	1	20000	20000		12:30	55.8	1	20000	20000
	13:30	56.8	1	20000	20000		13:30	56.8	1	20000	20000
	14:30	54.3	1	20000	20000		14:30	54.3	1	20000	20000
	15:30	49	1	20000	20000		15:30	49	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.4	1	20000	20000		18:30	25.4	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.3	1	20000	20000		21:30	2.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 06/Jul	00:30	0	0	20000	0	Fri, 06/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	5	1	20000	20000		05:30	5	1	20000	20000
	06:30	12.3	1	20000	20000		06:30	12.3	1	20000	20000
	07:30	20.4	1	20000	20000		07:30	20.4	1	20000	20000
	08:30	28.7	1	20000	20000		08:30	28.7	1	20000	20000
	09:30	37	1	20000	20000		09:30	37	1	20000	20000
	10:30	44.8	1	20000	20000		10:30	44.8	1	20000	20000
	11:30	51.3	1	20000	20000		11:30	51.3	1	20000	20000
	12:30	55.7	1	20000	20000		12:30	55.7	1	20000	20000
	13:30	56.7	1	20000	20000		13:30	56.7	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.9	1	20000	20000		15:30	48.9	1	20000	20000
	16:30	41.8	1	20000	20000		16:30	41.8	1	20000	20000
	17:30	33.7	1	20000	20000		17:30	33.7	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17.1	1	20000	20000		19:30	17.1	1	20000	20000
	20:30	9.3	1	20000	20000		20:30	9.3	1	20000	20000
	21:30	2.2	1	20000	20000		21:30	2.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 07/Jul	00:30	0	0	20000	0	Sat, 07/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.9	1	20000	20000		05:30	4.9	1	20000	20000
	06:30	12.2	1	20000	20000		06:30	12.2	1	20000	20000
	07:30	20.3	1	20000	20000		07:30	20.3	1	20000	20000
	08:30	28.6	1	20000	20000		08:30	28.6	1	20000	20000
	09:30	36.9	1	20000	20000		09:30	36.9	1	20000	20000
	10:30	44.7	1	20000	20000		10:30	44.7	1	20000	20000
	11:30	51.2	1	20000	20000		11:30	51.2	1	20000	20000
	12:30	55.6	1	20000	20000		12:30	55.6	1	20000	20000
	13:30	56.6	1	20000	20000		13:30	56.6	1	20000	20000
	14:30	54.2	1	20000	20000		14:30	54.2	1	20000	20000
	15:30	48.8	1	20000	20000		15:30	48.8	1	20000	20000
	16:30	41.7	1	20000	20000		16:30	41.7	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.3	1	20000	20000		18:30	25.3	1	20000	20000
	19:30	17	1	20000	20000		19:30	17	1	20000	20000
	20:30	9.2	1	20000	20000		20:30	9.2	1	20000	20000
	21:30	2.2	1	20000	20000		21:30	2.2	1	20000	20000

	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 08/Jul	00:30	0	0	20000	0	Sun, 08/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.7	1	20000	20000		05:30	4.7	1	20000	20000
	06:30	12.1	1	20000	20000		06:30	12.1	1	20000	20000
	07:30	20.1	1	20000	20000		07:30	20.1	1	20000	20000
	08:30	28.5	1	20000	20000		08:30	28.5	1	20000	20000
	09:30	36.8	1	20000	20000		09:30	36.8	1	20000	20000
	10:30	44.6	1	20000	20000		10:30	44.6	1	20000	20000
	11:30	51.1	1	20000	20000		11:30	51.1	1	20000	20000
	12:30	55.4	1	20000	20000		12:30	55.4	1	20000	20000
	13:30	56.5	1	20000	20000		13:30	56.5	1	20000	20000
	14:30	54.1	1	20000	20000		14:30	54.1	1	20000	20000
	15:30	48.7	1	20000	20000		15:30	48.7	1	20000	20000
	16:30	41.6	1	20000	20000		16:30	41.6	1	20000	20000
	17:30	33.6	1	20000	20000		17:30	33.6	1	20000	20000
	18:30	25.2	1	20000	20000		18:30	25.2	1	20000	20000
	19:30	16.9	1	20000	20000		19:30	16.9	1	20000	20000
	20:30	9.1	1	20000	20000		20:30	9.1	1	20000	20000
	21:30	2.1	1	20000	20000		21:30	2.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 09/Jul	00:30	0	0	20000	0	Mon, 09/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.6	1	20000	20000		05:30	4.6	1	20000	20000
	06:30	12	1	20000	20000		06:30	12	1	20000	20000
	07:30	20	1	20000	20000		07:30	20	1	20000	20000
	08:30	28.4	1	20000	20000		08:30	28.4	1	20000	20000
	09:30	36.7	1	20000	20000		09:30	36.7	1	20000	20000
	10:30	44.5	1	20000	20000		10:30	44.5	1	20000	20000
	11:30	51	1	20000	20000		11:30	51	1	20000	20000
	12:30	55.3	1	20000	20000		12:30	55.3	1	20000	20000
	13:30	56.4	1	20000	20000		13:30	56.4	1	20000	20000
	14:30	54	1	20000	20000		14:30	54	1	20000	20000
	15:30	48.7	1	20000	20000		15:30	48.7	1	20000	20000
	16:30	41.5	1	20000	20000		16:30	41.5	1	20000	20000
	17:30	33.5	1	20000	20000		17:30	33.5	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.9	1	20000	20000		19:30	16.9	1	20000	20000
	20:30	9	1	20000	20000		20:30	9	1	20000	20000
	21:30	2	1	20000	20000		21:30	2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 10/Jul	00:30	0	0	20000	0	Tue, 10/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.5	1	20000	20000		05:30	4.5	1	20000	20000
	06:30	11.9	1	20000	20000		06:30	11.9	1	20000	20000
	07:30	19.9	1	20000	20000		07:30	19.9	1	20000	20000
	08:30	28.3	1	20000	20000		08:30	28.3	1	20000	20000
	09:30	36.6	1	20000	20000		09:30	36.6	1	20000	20000
	10:30	44.3	1	20000	20000		10:30	44.3	1	20000	20000
	11:30	50.9	1	20000	20000		11:30	50.9	1	20000	20000
	12:30	55.2	1	20000	20000		12:30	55.2	1	20000	20000
	13:30	56.3	1	20000	20000		13:30	56.3	1	20000	20000
	14:30	53.9	1	20000	20000		14:30	53.9	1	20000	20000
	15:30	48.6	1	20000	20000		15:30	48.6	1	20000	20000
	16:30	41.5	1	20000	20000		16:30	41.5	1	20000	20000
	17:30	33.4	1	20000	20000		17:30	33.4	1	20000	20000
	18:30	25.1	1	20000	20000		18:30	25.1	1	20000	20000
	19:30	16.8	1	20000	20000		19:30	16.8	1	20000	20000
	20:30	9	1	20000	20000		20:30	9	1	20000	20000
	21:30	1.9	1	20000	20000		21:30	1.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 11/Jul	00:30	0	0	20000	0	Wed, 11/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.4	1	20000	20000		05:30	4.4	1	20000	20000
	06:30	11.8	1	20000	20000		06:30	11.8	1	20000	20000
	07:30	19.8	1	20000	20000		07:30	19.8	1	20000	20000
	08:30	28.2	1	20000	20000		08:30	28.2	1	20000	20000
	09:30	36.5	1	20000	20000		09:30	36.5	1	20000	20000
	10:30	44.2	1	20000	20000		10:30	44.2	1	20000	20000
	11:30	50.7	1	20000	20000		11:30	50.7	1	20000	20000
	12:30	55.1	1	20000	20000		12:30	55.1	1	20000	20000
	13:30	56.2	1	20000	20000		13:30	56.2	1	20000	20000
	14:30	53.8	1	20000	20000		14:30	53.8	1	20000	20000
	15:30	48.5	1	20000	20000		15:30	48.5	1	20000	20000
	16:30	41.4	1	20000	20000		16:30	41.4	1	20000	20000
	17:30	33.4	1	20000	20000		17:30	33.4	1	20000	20000
	18:30	25	1	20000	20000		18:30	25	1	20000	20000
	19:30	16.7	1	20000	20000		19:30	16.7	1	20000	20000
	20:30	8.9	1	20000	20000		20:30	8.9	1	20000	20000
	21:30	1.8	1	20000	20000		21:30	1.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 12/Jul	00:30	0	0	20000	0	Thu, 12/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.3	1	20000	20000		05:30	4.3	1	20000	20000
	06:30	11.6	1	20000	20000		06:30	11.6	1	20000	20000
	07:30	19.7	1	20000	20000		07:30	19.7	1	20000	20000
	08:30	28	1	20000	20000		08:30	28	1	20000	20000
	09:30	36.3	1	20000	20000		09:30	36.3	1	20000	20000
	10:30	44.1	1	20000	20000		10:30	44.1	1	20000	20000
	11:30	50.6	1	20000	20000		11:30	50.6	1	20000	20000
	12:30	54.9	1	20000	20000		12:30	54.9	1	20000	20000
	13:30	56.1	1	20000	20000		13:30	56.1	1	20000	20000
	14:30	53.6	1	20000	20000		14:30	53.6	1	20000	20000
	15:30	48.4	1	20000	20000		15:30	48.4	1	20000	20000
	16:30	41.3	1	20000	20000		16:30	41.3	1	20000	20000
	17:30	33.3	1	20000	20000		17:30	33.3	1	20000	20000
	18:30	24.9	1	20000	20000		18:30	24.9	1	20000	20000
	19:30	16.6	1	20000	20000		19:30	16.6	1	20000	20000
	20:30	8.8	1	20000	20000		20:30	8.8	1	20000	20000
	21:30	1.7	1	20000	20000		21:30	1.7	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 13/Jul	00:30	0	0	20000	0	Fri, 13/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4.1	1	20000	20000		05:30	4.1	1	20000	20000
	06:30	11.5	1	20000	20000		06:30	11.5	1	20000	20000
	07:30	19.5	1	20000	20000		07:30	19.5	1	20000	20000
	08:30	27.9	1	20000	20000		08:30	27.9	1	20000	20000
	09:30	36.2	1	20000	20000		09:30	36.2	1	20000	20000
	10:30	44	1	20000	20000		10:30	44	1	20000	20000
	11:30	50.5	1	20000	20000		11:30	50.5	1	20000	20000
	12:30	54.8	1	20000	20000		12:30	54.8	1	20000	20000
	13:30	55.9	1	20000	20000		13:30	55.9	1	20000	20000
	14:30	53.5	1	20000	20000		14:30	53.5	1	20000	20000

	15:30	48.3	1	20000	20000		15:30	48.3	1	20000	20000
	16:30	41.2	1	20000	20000		16:30	41.2	1	20000	20000
	17:30	33.2	1	20000	20000		17:30	33.2	1	20000	20000
	18:30	24.8	1	20000	20000		18:30	24.8	1	20000	20000
	19:30	16.5	1	20000	20000		19:30	16.5	1	20000	20000
	20:30	8.7	1	20000	20000		20:30	8.7	1	20000	20000
	21:30	1.6	1	20000	20000		21:30	1.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 14/Jul	00:30	0	0	20000	0	Sat, 14/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	4	1	20000	20000		05:30	4	1	20000	20000
	06:30	11.4	1	20000	20000		06:30	11.4	1	20000	20000
	07:30	19.4	1	20000	20000		07:30	19.4	1	20000	20000
	08:30	27.8	1	20000	20000		08:30	27.8	1	20000	20000
	09:30	36.1	1	20000	20000		09:30	36.1	1	20000	20000
	10:30	43.8	1	20000	20000		10:30	43.8	1	20000	20000
	11:30	50.3	1	20000	20000		11:30	50.3	1	20000	20000
	12:30	54.6	1	20000	20000		12:30	54.6	1	20000	20000
	13:30	55.8	1	20000	20000		13:30	55.8	1	20000	20000
	14:30	53.4	1	20000	20000		14:30	53.4	1	20000	20000
	15:30	48.1	1	20000	20000		15:30	48.1	1	20000	20000
	16:30	41.1	1	20000	20000		16:30	41.1	1	20000	20000
	17:30	33.1	1	20000	20000		17:30	33.1	1	20000	20000
	18:30	24.7	1	20000	20000		18:30	24.7	1	20000	20000
	19:30	16.4	1	20000	20000		19:30	16.4	1	20000	20000
	20:30	8.6	1	20000	20000		20:30	8.6	1	20000	20000
	21:30	1.5	1	20000	20000		21:30	1.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 15/Jul	00:30	0	0	20000	0	Sun, 15/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.8	1	20000	20000		05:30	3.8	1	20000	20000
	06:30	11.2	1	20000	20000		06:30	11.2	1	20000	20000
	07:30	19.3	1	20000	20000		07:30	19.3	1	20000	20000
	08:30	27.6	1	20000	20000		08:30	27.6	1	20000	20000
	09:30	35.9	1	20000	20000		09:30	35.9	1	20000	20000
	10:30	43.7	1	20000	20000		10:30	43.7	1	20000	20000
	11:30	50.2	1	20000	20000		11:30	50.2	1	20000	20000
	12:30	54.5	1	20000	20000		12:30	54.5	1	20000	20000
	13:30	55.6	1	20000	20000		13:30	55.6	1	20000	20000
	14:30	53.3	1	20000	20000		14:30	53.3	1	20000	20000
	15:30	48	1	20000	20000		15:30	48	1	20000	20000
	16:30	41	1	20000	20000		16:30	41	1	20000	20000
	17:30	33	1	20000	20000		17:30	33	1	20000	20000
	18:30	24.6	1	20000	20000		18:30	24.6	1	20000	20000
	19:30	16.3	1	20000	20000		19:30	16.3	1	20000	20000
	20:30	8.5	1	20000	20000		20:30	8.5	1	20000	20000
	21:30	1.4	1	20000	20000		21:30	1.4	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 16/Jul	00:30	0	0	20000	0	Mon, 16/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.6	1	20000	20000		05:30	3.6	1	20000	20000
	06:30	11	1	20000	20000		06:30	11	1	20000	20000
	07:30	19.1	1	20000	20000		07:30	19.1	1	20000	20000
	08:30	27.5	1	20000	20000		08:30	27.5	1	20000	20000
	09:30	35.7	1	20000	20000		09:30	35.7	1	20000	20000
	10:30	43.5	1	20000	20000		10:30	43.5	1	20000	20000
	11:30	50	1	20000	20000		11:30	50	1	20000	20000
	12:30	54.3	1	20000	20000		12:30	54.3	1	20000	20000
	13:30	55.4	1	20000	20000		13:30	55.4	1	20000	20000
	14:30	53.1	1	20000	20000		14:30	53.1	1	20000	20000
	15:30	47.9	1	20000	20000		15:30	47.9	1	20000	20000
	16:30	40.8	1	20000	20000		16:30	40.8	1	20000	20000
	17:30	32.8	1	20000	20000		17:30	32.8	1	20000	20000
	18:30	24.4	1	20000	20000		18:30	24.4	1	20000	20000
	19:30	16.2	1	20000	20000		19:30	16.2	1	20000	20000
	20:30	8.3	1	20000	20000		20:30	8.3	1	20000	20000
	21:30	1.2	1	20000	20000		21:30	1.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 17/Jul	00:30	0	0	20000	0	Tue, 17/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.5	1	20000	20000		05:30	3.5	1	20000	20000
	06:30	10.9	1	20000	20000		06:30	10.9	1	20000	20000
	07:30	19	1	20000	20000		07:30	19	1	20000	20000
	08:30	27.3	1	20000	20000		08:30	27.3	1	20000	20000
	09:30	35.6	1	20000	20000		09:30	35.6	1	20000	20000
	10:30	43.3	1	20000	20000		10:30	43.3	1	20000	20000
	11:30	49.8	1	20000	20000		11:30	49.8	1	20000	20000
	12:30	54.1	1	20000	20000		12:30	54.1	1	20000	20000
	13:30	55.3	1	20000	20000		13:30	55.3	1	20000	20000
	14:30	52.9	1	20000	20000		14:30	52.9	1	20000	20000
	15:30	47.7	1	20000	20000		15:30	47.7	1	20000	20000
	16:30	40.7	1	20000	20000		16:30	40.7	1	20000	20000
	17:30	32.7	1	20000	20000		17:30	32.7	1	20000	20000
	18:30	24.3	1	20000	20000		18:30	24.3	1	20000	20000
	19:30	16	1	20000	20000		19:30	16	1	20000	20000
	20:30	8.2	1	20000	20000		20:30	8.2	1	20000	20000
	21:30	1.1	1	20000	20000		21:30	1.1	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 18/Jul	00:30	0	0	20000	0	Wed, 18/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.3	1	20000	20000		05:30	3.3	1	20000	20000
	06:30	10.7	1	20000	20000		06:30	10.7	1	20000	20000
	07:30	18.8	1	20000	20000		07:30	18.8	1	20000	20000
	08:30	27.2	1	20000	20000		08:30	27.2	1	20000	20000
	09:30	35.5	1	20000	20000		09:30	35.5	1	20000	20000
	10:30	43.2	1	20000	20000		10:30	43.2	1	20000	20000
	11:30	49.7	1	20000	20000		11:30	49.7	1	20000	20000
	12:30	54	1	20000	20000		12:30	54	1	20000	20000
	13:30	55.1	1	20000	20000		13:30	55.1	1	20000	20000
	14:30	52.8	1	20000	20000		14:30	52.8	1	20000	20000
	15:30	47.6	1	20000	20000		15:30	47.6	1	20000	20000
	16:30	40.6	1	20000	20000		16:30	40.6	1	20000	20000
	17:30	32.6	1	20000	20000		17:30	32.6	1	20000	20000
	18:30	24.2	1	20000	20000		18:30	24.2	1	20000	20000
	19:30	15.9	1	20000	20000		19:30	15.9	1	20000	20000
	20:30	8	1	20000	20000		20:30	8	1	20000	20000
	21:30	0.9	1	20000	20000		21:30	0.9	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 19/Jul	00:30	0	0	20000	0	Thu, 19/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3.2	1	20000	20000		05:30	3.2	1	20000	20000
	06:30	10.6	1	20000	20000		06:30	10.6	1	20000	20000
	07:30	18.7	1	20000	20000		07:30	18.7	1	20000	20000

	08:30	27	1	20000	20000		08:30	27	1	20000	20000
	09:30	35.3	1	20000	20000		09:30	35.3	1	20000	20000
	10:30	43	1	20000	20000		10:30	43	1	20000	20000
	11:30	49.5	1	20000	20000		11:30	49.5	1	20000	20000
	12:30	53.8	1	20000	20000		12:30	53.8	1	20000	20000
	13:30	54.9	1	20000	20000		13:30	54.9	1	20000	20000
	14:30	52.6	1	20000	20000		14:30	52.6	1	20000	20000
	15:30	47.4	1	20000	20000		15:30	47.4	1	20000	20000
	16:30	40.4	1	20000	20000		16:30	40.4	1	20000	20000
	17:30	32.4	1	20000	20000		17:30	32.4	1	20000	20000
	18:30	24.1	1	20000	20000		18:30	24.1	1	20000	20000
	19:30	15.8	1	20000	20000		19:30	15.8	1	20000	20000
	20:30	7.9	1	20000	20000		20:30	7.9	1	20000	20000
	21:30	0.8	1	20000	20000		21:30	0.8	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 20/Jul	00:30	0	0	20000	0	Fri, 20/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	3	1	20000	20000		05:30	3	1	20000	20000
	06:30	10.4	1	20000	20000		06:30	10.4	1	20000	20000
	07:30	18.5	1	20000	20000		07:30	18.5	1	20000	20000
	08:30	26.9	1	20000	20000		08:30	26.9	1	20000	20000
	09:30	35.1	1	20000	20000		09:30	35.1	1	20000	20000
	10:30	42.9	1	20000	20000		10:30	42.9	1	20000	20000
	11:30	49.3	1	20000	20000		11:30	49.3	1	20000	20000
	12:30	53.6	1	20000	20000		12:30	53.6	1	20000	20000
	13:30	54.7	1	20000	20000		13:30	54.7	1	20000	20000
	14:30	52.4	1	20000	20000		14:30	52.4	1	20000	20000
	15:30	47.3	1	20000	20000		15:30	47.3	1	20000	20000
	16:30	40.3	1	20000	20000		16:30	40.3	1	20000	20000
	17:30	32.3	1	20000	20000		17:30	32.3	1	20000	20000
	18:30	23.9	1	20000	20000		18:30	23.9	1	20000	20000
	19:30	15.6	1	20000	20000		19:30	15.6	1	20000	20000
	20:30	7.8	1	20000	20000		20:30	7.8	1	20000	20000
	21:30	0.6	1	20000	20000		21:30	0.6	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 21/Jul	00:30	0	0	20000	0	Sat, 21/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.8	1	20000	20000		05:30	2.8	1	20000	20000
	06:30	10.3	1	20000	20000		06:30	10.3	1	20000	20000
	07:30	18.3	1	20000	20000		07:30	18.3	1	20000	20000
	08:30	26.7	1	20000	20000		08:30	26.7	1	20000	20000
	09:30	35	1	20000	20000		09:30	35	1	20000	20000
	10:30	42.7	1	20000	20000		10:30	42.7	1	20000	20000
	11:30	49.1	1	20000	20000		11:30	49.1	1	20000	20000
	12:30	53.4	1	20000	20000		12:30	53.4	1	20000	20000
	13:30	54.6	1	20000	20000		13:30	54.6	1	20000	20000
	14:30	52.3	1	20000	20000		14:30	52.3	1	20000	20000
	15:30	47.1	1	20000	20000		15:30	47.1	1	20000	20000
	16:30	40.1	1	20000	20000		16:30	40.1	1	20000	20000
	17:30	32.2	1	20000	20000		17:30	32.2	1	20000	20000
	18:30	23.8	1	20000	20000		18:30	23.8	1	20000	20000
	19:30	15.5	1	20000	20000		19:30	15.5	1	20000	20000
	20:30	7.6	1	20000	20000		20:30	7.6	1	20000	20000
	21:30	0.5	1	20000	20000		21:30	0.5	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 22/Jul	00:30	0	0	20000	0	Sun, 22/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.7	1	20000	20000		05:30	2.7	1	20000	20000
	06:30	10.1	1	20000	20000		06:30	10.1	1	20000	20000
	07:30	18.2	1	20000	20000		07:30	18.2	1	20000	20000
	08:30	26.5	1	20000	20000		08:30	26.5	1	20000	20000
	09:30	34.8	1	20000	20000		09:30	34.8	1	20000	20000
	10:30	42.5	1	20000	20000		10:30	42.5	1	20000	20000
	11:30	49	1	20000	20000		11:30	49	1	20000	20000
	12:30	53.2	1	20000	20000		12:30	53.2	1	20000	20000
	13:30	54.4	1	20000	20000		13:30	54.4	1	20000	20000
	14:30	52.1	1	20000	20000		14:30	52.1	1	20000	20000
	15:30	46.9	1	20000	20000		15:30	46.9	1	20000	20000
	16:30	40	1	20000	20000		16:30	40	1	20000	20000
	17:30	32	1	20000	20000		17:30	32	1	20000	20000
	18:30	23.7	1	20000	20000		18:30	23.7	1	20000	20000
	19:30	15.4	1	20000	20000		19:30	15.4	1	20000	20000
	20:30	7.5	1	20000	20000		20:30	7.5	1	20000	20000
	21:30	0.3	1	20000	20000		21:30	0.3	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 23/Jul	00:30	0	0	20000	0	Mon, 23/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.5	1	20000	20000		05:30	2.5	1	20000	20000
	06:30	9.9	1	20000	20000		06:30	9.9	1	20000	20000
	07:30	18	1	20000	20000		07:30	18	1	20000	20000
	08:30	26.4	1	20000	20000		08:30	26.4	1	20000	20000
	09:30	34.7	1	20000	20000		09:30	34.7	1	20000	20000
	10:30	42.3	1	20000	20000		10:30	42.3	1	20000	20000
	11:30	48.8	1	20000	20000		11:30	48.8	1	20000	20000
	12:30	53	1	20000	20000		12:30	53	1	20000	20000
	13:30	54.2	1	20000	20000		13:30	54.2	1	20000	20000
	14:30	51.9	1	20000	20000		14:30	51.9	1	20000	20000
	15:30	46.8	1	20000	20000		15:30	46.8	1	20000	20000
	16:30	39.8	1	20000	20000		16:30	39.8	1	20000	20000
	17:30	31.9	1	20000	20000		17:30	31.9	1	20000	20000
	18:30	23.5	1	20000	20000		18:30	23.5	1	20000	20000
	19:30	15.2	1	20000	20000		19:30	15.2	1	20000	20000
	20:30	7.3	1	20000	20000		20:30	7.3	1	20000	20000
	21:30	0.2	1	20000	20000		21:30	0.2	1	20000	20000
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 24/Jul	00:30	0	0	20000	0	Tue, 24/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.3	1	20000	20000		05:30	2.3	1	20000	20000
	06:30	9.8	1	20000	20000		06:30	9.8	1	20000	20000
	07:30	17.8	1	20000	20000		07:30	17.8	1	20000	20000
	08:30	26.2	1	20000	20000		08:30	26.2	1	20000	20000
	09:30	34.5	1	20000	20000		09:30	34.5	1	20000	20000
	10:30	42.2	1	20000	20000		10:30	42.2	1	20000	20000
	11:30	48.6	1	20000	20000		11:30	48.6	1	20000	20000
	12:30	52.8	1	20000	20000		12:30	52.8	1	20000	20000
	13:30	54	1	20000	20000		13:30	54	1	20000	20000
	14:30	51.7	1	20000	20000		14:30	51.7	1	20000	20000
	15:30	46.6	1	20000	20000		15:30	46.6	1	20000	20000
	16:30	39.6	1	20000	20000		16:30	39.6	1	20000	20000
	17:30	31.7	1	20000	20000		17:30	31.7	1	20000	20000
	18:30	23.3	1	20000	20000		18:30	23.3	1	20000	20000
	19:30	15	1	20000	20000		19:30	15	1	20000	20000
	20:30	7.1	1	20000	20000		20:30	7.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 25/Jul	00:30	0	0	20000	0	Wed, 25/Jul	00:30	0	0	20000	0

	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	2.1	1	20000	20000		05:30	2.1	1	20000	20000
	06:30	9.6	1	20000	20000		06:30	9.6	1	20000	20000
	07:30	17.7	1	20000	20000		07:30	17.7	1	20000	20000
	08:30	26	1	20000	20000		08:30	26	1	20000	20000
	09:30	34.3	1	20000	20000		09:30	34.3	1	20000	20000
	10:30	42	1	20000	20000		10:30	42	1	20000	20000
	11:30	48.4	1	20000	20000		11:30	48.4	1	20000	20000
	12:30	52.6	1	20000	20000		12:30	52.6	1	20000	20000
	13:30	53.8	1	20000	20000		13:30	53.8	1	20000	20000
	14:30	51.5	1	20000	20000		14:30	51.5	1	20000	20000
	15:30	46.4	1	20000	20000		15:30	46.4	1	20000	20000
	16:30	39.5	1	20000	20000		16:30	39.5	1	20000	20000
	17:30	31.5	1	20000	20000		17:30	31.5	1	20000	20000
	18:30	23.2	1	20000	20000		18:30	23.2	1	20000	20000
	19:30	14.9	1	20000	20000		19:30	14.9	1	20000	20000
	20:30	7	1	20000	20000		20:30	7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 26/Jul	00:30	0	0	20000	0	Thu, 26/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.9	1	20000	20000		05:30	1.9	1	20000	20000
	06:30	9.4	1	20000	20000		06:30	9.4	1	20000	20000
	07:30	17.5	1	20000	20000		07:30	17.5	1	20000	20000
	08:30	25.9	1	20000	20000		08:30	25.9	1	20000	20000
	09:30	34.1	1	20000	20000		09:30	34.1	1	20000	20000
	10:30	41.8	1	20000	20000		10:30	41.8	1	20000	20000
	11:30	48.2	1	20000	20000		11:30	48.2	1	20000	20000
	12:30	52.4	1	20000	20000		12:30	52.4	1	20000	20000
	13:30	53.5	1	20000	20000		13:30	53.5	1	20000	20000
	14:30	51.3	1	20000	20000		14:30	51.3	1	20000	20000
	15:30	46.2	1	20000	20000		15:30	46.2	1	20000	20000
	16:30	39.3	1	20000	20000		16:30	39.3	1	20000	20000
	17:30	31.4	1	20000	20000		17:30	31.4	1	20000	20000
	18:30	23	1	20000	20000		18:30	23	1	20000	20000
	19:30	14.7	1	20000	20000		19:30	14.7	1	20000	20000
	20:30	6.8	1	20000	20000		20:30	6.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 27/Jul	00:30	0	0	20000	0	Fri, 27/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.8	1	20000	20000		05:30	1.8	1	20000	20000
	06:30	9.2	1	20000	20000		06:30	9.2	1	20000	20000
	07:30	17.3	1	20000	20000		07:30	17.3	1	20000	20000
	08:30	25.7	1	20000	20000		08:30	25.7	1	20000	20000
	09:30	33.9	1	20000	20000		09:30	33.9	1	20000	20000
	10:30	41.6	1	20000	20000		10:30	41.6	1	20000	20000
	11:30	48	1	20000	20000		11:30	48	1	20000	20000
	12:30	52.2	1	20000	20000		12:30	52.2	1	20000	20000
	13:30	53.3	1	20000	20000		13:30	53.3	1	20000	20000
	14:30	51.1	1	20000	20000		14:30	51.1	1	20000	20000
	15:30	46	1	20000	20000		15:30	46	1	20000	20000
	16:30	39.1	1	20000	20000		16:30	39.1	1	20000	20000
	17:30	31.2	1	20000	20000		17:30	31.2	1	20000	20000
	18:30	22.8	1	20000	20000		18:30	22.8	1	20000	20000
	19:30	14.5	1	20000	20000		19:30	14.5	1	20000	20000
	20:30	6.6	1	20000	20000		20:30	6.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 28/Jul	00:30	0	0	20000	0	Sat, 28/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.6	1	20000	20000		05:30	1.6	1	20000	20000
	06:30	9	1	20000	20000		06:30	9	1	20000	20000
	07:30	17.1	1	20000	20000		07:30	17.1	1	20000	20000
	08:30	25.5	1	20000	20000		08:30	25.5	1	20000	20000
	09:30	33.8	1	20000	20000		09:30	33.8	1	20000	20000
	10:30	41.4	1	20000	20000		10:30	41.4	1	20000	20000
	11:30	47.8	1	20000	20000		11:30	47.8	1	20000	20000
	12:30	52	1	20000	20000		12:30	52	1	20000	20000
	13:30	53.1	1	20000	20000		13:30	53.1	1	20000	20000
	14:30	50.9	1	20000	20000		14:30	50.9	1	20000	20000
	15:30	45.8	1	20000	20000		15:30	45.8	1	20000	20000
	16:30	38.9	1	20000	20000		16:30	38.9	1	20000	20000
	17:30	31	1	20000	20000		17:30	31	1	20000	20000
	18:30	22.6	1	20000	20000		18:30	22.6	1	20000	20000
	19:30	14.3	1	20000	20000		19:30	14.3	1	20000	20000
	20:30	6.4	1	20000	20000		20:30	6.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 29/Jul	00:30	0	0	20000	0	Sun, 29/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.4	1	20000	20000		05:30	1.4	1	20000	20000
	06:30	8.8	1	20000	20000		06:30	8.8	1	20000	20000
	07:30	17	1	20000	20000		07:30	17	1	20000	20000
	08:30	25.3	1	20000	20000		08:30	25.3	1	20000	20000
	09:30	33.6	1	20000	20000		09:30	33.6	1	20000	20000
	10:30	41.2	1	20000	20000		10:30	41.2	1	20000	20000
	11:30	47.6	1	20000	20000		11:30	47.6	1	20000	20000
	12:30	51.7	1	20000	20000		12:30	51.7	1	20000	20000
	13:30	52.9	1	20000	20000		13:30	52.9	1	20000	20000
	14:30	50.6	1	20000	20000		14:30	50.6	1	20000	20000
	15:30	45.6	1	20000	20000		15:30	45.6	1	20000	20000
	16:30	38.7	1	20000	20000		16:30	38.7	1	20000	20000
	17:30	30.8	1	20000	20000		17:30	30.8	1	20000	20000
	18:30	22.5	1	20000	20000		18:30	22.5	1	20000	20000
	19:30	14.1	1	20000	20000		19:30	14.1	1	20000	20000
	20:30	6.2	1	20000	20000		20:30	6.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 30/Jul	00:30	0	0	20000	0	Mon, 30/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1.2	1	20000	20000		05:30	1.2	1	20000	20000
	06:30	8.7	1	20000	20000		06:30	8.7	1	20000	20000
	07:30	16.8	1	20000	20000		07:30	16.8	1	20000	20000
	08:30	25.1	1	20000	20000		08:30	25.1	1	20000	20000
	09:30	33.4	1	20000	20000		09:30	33.4	1	20000	20000
	10:30	41	1	20000	20000		10:30	41	1	20000	20000
	11:30	47.4	1	20000	20000		11:30	47.4	1	20000	20000
	12:30	51.5	1	20000	20000		12:30	51.5	1	20000	20000
	13:30	52.6	1	20000	20000		13:30	52.6	1	20000	20000
	14:30	50.4	1	20000	20000		14:30	50.4	1	20000	20000
	15:30	45.4	1	20000	20000		15:30	45.4	1	20000	20000
	16:30	38.5	1	20000	20000		16:30	38.5	1	20000	20000
	17:30	30.6	1	20000	20000		17:30	30.6	1	20000	20000

	18:30	22.3	1	20000	20000		18:30	22.3	1	20000	20000
	19:30	13.9	1	20000	20000		19:30	13.9	1	20000	20000
	20:30	6	1	20000	20000		20:30	6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 31/Jul	00:30	0	0	20000	0	Tue, 31/Jul	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	1	1	20000	20000		05:30	1	1	20000	20000
	06:30	8.5	1	20000	20000		06:30	8.5	1	20000	20000
	07:30	16.6	1	20000	20000		07:30	16.6	1	20000	20000
	08:30	24.9	1	20000	20000		08:30	24.9	1	20000	20000
	09:30	33.2	1	20000	20000		09:30	33.2	1	20000	20000
	10:30	40.8	1	20000	20000		10:30	40.8	1	20000	20000
	11:30	47.1	1	20000	20000		11:30	47.1	1	20000	20000
	12:30	51.3	1	20000	20000		12:30	51.3	1	20000	20000
	13:30	52.4	1	20000	20000		13:30	52.4	1	20000	20000
	14:30	50.2	1	20000	20000		14:30	50.2	1	20000	20000
	15:30	45.2	1	20000	20000		15:30	45.2	1	20000	20000
	16:30	38.3	1	20000	20000		16:30	38.3	1	20000	20000
	17:30	30.4	1	20000	20000		17:30	30.4	1	20000	20000
	18:30	22.1	1	20000	20000		18:30	22.1	1	20000	20000
	19:30	13.7	1	20000	20000		19:30	13.7	1	20000	20000
	20:30	5.8	1	20000	20000		20:30	5.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 01/Aug	00:30	0	0	20000	0	Wed, 01/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.7	1	20000	20000		05:30	0.7	1	20000	20000
	06:30	8.3	1	20000	20000		06:30	8.3	1	20000	20000
	07:30	16.4	1	20000	20000		07:30	16.4	1	20000	20000
	08:30	24.8	1	20000	20000		08:30	24.8	1	20000	20000
	09:30	33	1	20000	20000		09:30	33	1	20000	20000
	10:30	40.6	1	20000	20000		10:30	40.6	1	20000	20000
	11:30	46.9	1	20000	20000		11:30	46.9	1	20000	20000
	12:30	51	1	20000	20000		12:30	51	1	20000	20000
	13:30	52.1	1	20000	20000		13:30	52.1	1	20000	20000
	14:30	49.9	1	20000	20000		14:30	49.9	1	20000	20000
	15:30	44.9	1	20000	20000		15:30	44.9	1	20000	20000
	16:30	38.1	1	20000	20000		16:30	38.1	1	20000	20000
	17:30	30.2	1	20000	20000		17:30	30.2	1	20000	20000
	18:30	21.9	1	20000	20000		18:30	21.9	1	20000	20000
	19:30	13.5	1	20000	20000		19:30	13.5	1	20000	20000
	20:30	5.6	1	20000	20000		20:30	5.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 02/Aug	00:30	0	0	20000	0	Thu, 02/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.5	1	20000	20000		05:30	0.5	1	20000	20000
	06:30	8.1	1	20000	20000		06:30	8.1	1	20000	20000
	07:30	16.2	1	20000	20000		07:30	16.2	1	20000	20000
	08:30	24.6	1	20000	20000		08:30	24.6	1	20000	20000
	09:30	32.8	1	20000	20000		09:30	32.8	1	20000	20000
	10:30	40.4	1	20000	20000		10:30	40.4	1	20000	20000
	11:30	46.7	1	20000	20000		11:30	46.7	1	20000	20000
	12:30	50.8	1	20000	20000		12:30	50.8	1	20000	20000
	13:30	51.9	1	20000	20000		13:30	51.9	1	20000	20000
	14:30	49.7	1	20000	20000		14:30	49.7	1	20000	20000
	15:30	44.7	1	20000	20000		15:30	44.7	1	20000	20000
	16:30	37.9	1	20000	20000		16:30	37.9	1	20000	20000
	17:30	30	1	20000	20000		17:30	30	1	20000	20000
	18:30	21.6	1	20000	20000		18:30	21.6	1	20000	20000
	19:30	13.3	1	20000	20000		19:30	13.3	1	20000	20000
	20:30	5.4	1	20000	20000		20:30	5.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 03/Aug	00:30	0	0	20000	0	Fri, 03/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.3	1	20000	20000		05:30	0.3	1	20000	20000
	06:30	7.9	1	20000	20000		06:30	7.9	1	20000	20000
	07:30	16	1	20000	20000		07:30	16	1	20000	20000
	08:30	24.4	1	20000	20000		08:30	24.4	1	20000	20000
	09:30	32.6	1	20000	20000		09:30	32.6	1	20000	20000
	10:30	40.2	1	20000	20000		10:30	40.2	1	20000	20000
	11:30	46.5	1	20000	20000		11:30	46.5	1	20000	20000
	12:30	50.6	1	20000	20000		12:30	50.6	1	20000	20000
	13:30	51.6	1	20000	20000		13:30	51.6	1	20000	20000
	14:30	49.4	1	20000	20000		14:30	49.4	1	20000	20000
	15:30	44.5	1	20000	20000		15:30	44.5	1	20000	20000
	16:30	37.6	1	20000	20000		16:30	37.6	1	20000	20000
	17:30	29.8	1	20000	20000		17:30	29.8	1	20000	20000
	18:30	21.4	1	20000	20000		18:30	21.4	1	20000	20000
	19:30	13.1	1	20000	20000		19:30	13.1	1	20000	20000
	20:30	5.1	1	20000	20000		20:30	5.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 04/Aug	00:30	0	0	20000	0	Sat, 04/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0.1	1	20000	20000		05:30	0.1	1	20000	20000
	06:30	7.6	1	20000	20000		06:30	7.6	1	20000	20000
	07:30	15.8	1	20000	20000		07:30	15.8	1	20000	20000
	08:30	24.2	1	20000	20000		08:30	24.2	1	20000	20000
	09:30	32.4	1	20000	20000		09:30	32.4	1	20000	20000
	10:30	40	1	20000	20000		10:30	40	1	20000	20000
	11:30	46.2	1	20000	20000		11:30	46.2	1	20000	20000
	12:30	50.3	1	20000	20000		12:30	50.3	1	20000	20000
	13:30	51.4	1	20000	20000		13:30	51.4	1	20000	20000
	14:30	49.2	1	20000	20000		14:30	49.2	1	20000	20000
	15:30	44.2	1	20000	20000		15:30	44.2	1	20000	20000
	16:30	37.4	1	20000	20000		16:30	37.4	1	20000	20000
	17:30	29.5	1	20000	20000		17:30	29.5	1	20000	20000
	18:30	21.2	1	20000	20000		18:30	21.2	1	20000	20000
	19:30	12.9	1	20000	20000		19:30	12.9	1	20000	20000
	20:30	4.9	1	20000	20000		20:30	4.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 05/Aug	00:30	0	0	20000	0	Sun, 05/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.4	1	20000	20000		06:30	7.4	1	20000	20000
	07:30	15.6	1	20000	20000		07:30	15.6	1	20000	20000
	08:30	24	1	20000	20000		08:30	24	1	20000	20000
	09:30	32.2	1	20000	20000		09:30	32.2	1	20000	20000
	10:30	39.7	1	20000	20000		10:30	39.7	1	20000	20000

	11:30	46	1	20000	20000		11:30	46	1	20000	20000
	12:30	50	1	20000	20000		12:30	50	1	20000	20000
	13:30	51.1	1	20000	20000		13:30	51.1	1	20000	20000
	14:30	48.9	1	20000	20000		14:30	48.9	1	20000	20000
	15:30	44	1	20000	20000		15:30	44	1	20000	20000
	16:30	37.2	1	20000	20000		16:30	37.2	1	20000	20000
	17:30	29.3	1	20000	20000		17:30	29.3	1	20000	20000
	18:30	21	1	20000	20000		18:30	21	1	20000	20000
	19:30	12.6	1	20000	20000		19:30	12.6	1	20000	20000
	20:30	4.7	1	20000	20000		20:30	4.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 06/Aug	00:30	0	0	20000	0	Mon, 06/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7.2	1	20000	20000		06:30	7.2	1	20000	20000
	07:30	15.4	1	20000	20000		07:30	15.4	1	20000	20000
	08:30	23.8	1	20000	20000		08:30	23.8	1	20000	20000
	09:30	32	1	20000	20000		09:30	32	1	20000	20000
	10:30	39.5	1	20000	20000		10:30	39.5	1	20000	20000
	11:30	45.7	1	20000	20000		11:30	45.7	1	20000	20000
	12:30	49.8	1	20000	20000		12:30	49.8	1	20000	20000
	13:30	50.8	1	20000	20000		13:30	50.8	1	20000	20000
	14:30	48.6	1	20000	20000		14:30	48.6	1	20000	20000
	15:30	43.7	1	20000	20000		15:30	43.7	1	20000	20000
	16:30	36.9	1	20000	20000		16:30	36.9	1	20000	20000
	17:30	29.1	1	20000	20000		17:30	29.1	1	20000	20000
	18:30	20.7	1	20000	20000		18:30	20.7	1	20000	20000
	19:30	12.4	1	20000	20000		19:30	12.4	1	20000	20000
	20:30	4.4	1	20000	20000		20:30	4.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 07/Aug	00:30	0	0	20000	0	Tue, 07/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	7	1	20000	20000		06:30	7	1	20000	20000
	07:30	15.2	1	20000	20000		07:30	15.2	1	20000	20000
	08:30	23.6	1	20000	20000		08:30	23.6	1	20000	20000
	09:30	31.8	1	20000	20000		09:30	31.8	1	20000	20000
	10:30	39.3	1	20000	20000		10:30	39.3	1	20000	20000
	11:30	45.5	1	20000	20000		11:30	45.5	1	20000	20000
	12:30	49.5	1	20000	20000		12:30	49.5	1	20000	20000
	13:30	50.6	1	20000	20000		13:30	50.6	1	20000	20000
	14:30	48.4	1	20000	20000		14:30	48.4	1	20000	20000
	15:30	43.4	1	20000	20000		15:30	43.4	1	20000	20000
	16:30	36.7	1	20000	20000		16:30	36.7	1	20000	20000
	17:30	28.8	1	20000	20000		17:30	28.8	1	20000	20000
	18:30	20.5	1	20000	20000		18:30	20.5	1	20000	20000
	19:30	12.2	1	20000	20000		19:30	12.2	1	20000	20000
	20:30	4.2	1	20000	20000		20:30	4.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 08/Aug	00:30	0	0	20000	0	Wed, 08/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.8	1	20000	20000		06:30	6.8	1	20000	20000
	07:30	15	1	20000	20000		07:30	15	1	20000	20000
	08:30	23.3	1	20000	20000		08:30	23.3	1	20000	20000
	09:30	31.5	1	20000	20000		09:30	31.5	1	20000	20000
	10:30	39.1	1	20000	20000		10:30	39.1	1	20000	20000
	11:30	45.2	1	20000	20000		11:30	45.2	1	20000	20000
	12:30	49.2	1	20000	20000		12:30	49.2	1	20000	20000
	13:30	50.3	1	20000	20000		13:30	50.3	1	20000	20000
	14:30	48.1	1	20000	20000		14:30	48.1	1	20000	20000
	15:30	43.2	1	20000	20000		15:30	43.2	1	20000	20000
	16:30	36.4	1	20000	20000		16:30	36.4	1	20000	20000
	17:30	28.6	1	20000	20000		17:30	28.6	1	20000	20000
	18:30	20.3	1	20000	20000		18:30	20.3	1	20000	20000
	19:30	11.9	1	20000	20000		19:30	11.9	1	20000	20000
	20:30	3.9	1	20000	20000		20:30	3.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 09/Aug	00:30	0	0	20000	0	Thu, 09/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.6	1	20000	20000		06:30	6.6	1	20000	20000
	07:30	14.7	1	20000	20000		07:30	14.7	1	20000	20000
	08:30	23.1	1	20000	20000		08:30	23.1	1	20000	20000
	09:30	31.3	1	20000	20000		09:30	31.3	1	20000	20000
	10:30	38.8	1	20000	20000		10:30	38.8	1	20000	20000
	11:30	45	1	20000	20000		11:30	45	1	20000	20000
	12:30	49	1	20000	20000		12:30	49	1	20000	20000
	13:30	50	1	20000	20000		13:30	50	1	20000	20000
	14:30	47.8	1	20000	20000		14:30	47.8	1	20000	20000
	15:30	42.9	1	20000	20000		15:30	42.9	1	20000	20000
	16:30	36.2	1	20000	20000		16:30	36.2	1	20000	20000
	17:30	28.3	1	20000	20000		17:30	28.3	1	20000	20000
	18:30	20	1	20000	20000		18:30	20	1	20000	20000
	19:30	11.7	1	20000	20000		19:30	11.7	1	20000	20000
	20:30	3.7	1	20000	20000		20:30	3.7	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 10/Aug	00:30	0	0	20000	0	Fri, 10/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.4	1	20000	20000		06:30	6.4	1	20000	20000
	07:30	14.5	1	20000	20000		07:30	14.5	1	20000	20000
	08:30	22.9	1	20000	20000		08:30	22.9	1	20000	20000
	09:30	31.1	1	20000	20000		09:30	31.1	1	20000	20000
	10:30	38.6	1	20000	20000		10:30	38.6	1	20000	20000
	11:30	44.7	1	20000	20000		11:30	44.7	1	20000	20000
	12:30	48.7	1	20000	20000		12:30	48.7	1	20000	20000
	13:30	49.7	1	20000	20000		13:30	49.7	1	20000	20000
	14:30	47.5	1	20000	20000		14:30	47.5	1	20000	20000
	15:30	42.6	1	20000	20000		15:30	42.6	1	20000	20000
	16:30	35.9	1	20000	20000		16:30	35.9	1	20000	20000
	17:30	28.1	1	20000	20000		17:30	28.1	1	20000	20000
	18:30	19.8	1	20000	20000		18:30	19.8	1	20000	20000
	19:30	11.4	1	20000	20000		19:30	11.4	1	20000	20000
	20:30	3.4	1	20000	20000		20:30	3.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 11/Aug	00:30	0	0	20000	0	Sat, 11/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0

	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	6.1	1	20000	20000		06:30	6.1	1	20000	20000
	07:30	14.3	1	20000	20000		07:30	14.3	1	20000	20000
	08:30	22.7	1	20000	20000		08:30	22.7	1	20000	20000
	09:30	30.9	1	20000	20000		09:30	30.9	1	20000	20000
	10:30	38.4	1	20000	20000		10:30	38.4	1	20000	20000
	11:30	44.5	1	20000	20000		11:30	44.5	1	20000	20000
	12:30	48.4	1	20000	20000		12:30	48.4	1	20000	20000
	13:30	49.4	1	20000	20000		13:30	49.4	1	20000	20000
	14:30	47.2	1	20000	20000		14:30	47.2	1	20000	20000
	15:30	42.4	1	20000	20000		15:30	42.4	1	20000	20000
	16:30	35.6	1	20000	20000		16:30	35.6	1	20000	20000
	17:30	27.8	1	20000	20000		17:30	27.8	1	20000	20000
	18:30	19.5	1	20000	20000		18:30	19.5	1	20000	20000
	19:30	11.1	1	20000	20000		19:30	11.1	1	20000	20000
	20:30	3.1	1	20000	20000		20:30	3.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 12/Aug	00:30	0	0	20000	0	Sun, 12/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.9	1	20000	20000		06:30	5.9	1	20000	20000
	07:30	14.1	1	20000	20000		07:30	14.1	1	20000	20000
	08:30	22.5	1	20000	20000		08:30	22.5	1	20000	20000
	09:30	30.7	1	20000	20000		09:30	30.7	1	20000	20000
	10:30	38.1	1	20000	20000		10:30	38.1	1	20000	20000
	11:30	44.2	1	20000	20000		11:30	44.2	1	20000	20000
	12:30	48.1	1	20000	20000		12:30	48.1	1	20000	20000
	13:30	49.1	1	20000	20000		13:30	49.1	1	20000	20000
	14:30	46.9	1	20000	20000		14:30	46.9	1	20000	20000
	15:30	42.1	1	20000	20000		15:30	42.1	1	20000	20000
	16:30	35.3	1	20000	20000		16:30	35.3	1	20000	20000
	17:30	27.5	1	20000	20000		17:30	27.5	1	20000	20000
	18:30	19.2	1	20000	20000		18:30	19.2	1	20000	20000
	19:30	10.9	1	20000	20000		19:30	10.9	1	20000	20000
	20:30	2.9	1	20000	20000		20:30	2.9	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 13/Aug	00:30	0	0	20000	0	Mon, 13/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.7	1	20000	20000		06:30	5.7	1	20000	20000
	07:30	13.9	1	20000	20000		07:30	13.9	1	20000	20000
	08:30	22.3	1	20000	20000		08:30	22.3	1	20000	20000
	09:30	30.4	1	20000	20000		09:30	30.4	1	20000	20000
	10:30	37.9	1	20000	20000		10:30	37.9	1	20000	20000
	11:30	44	1	20000	20000		11:30	44	1	20000	20000
	12:30	47.8	1	20000	20000		12:30	47.8	1	20000	20000
	13:30	48.8	1	20000	20000		13:30	48.8	1	20000	20000
	14:30	46.6	1	20000	20000		14:30	46.6	1	20000	20000
	15:30	41.8	1	20000	20000		15:30	41.8	1	20000	20000
	16:30	35.1	1	20000	20000		16:30	35.1	1	20000	20000
	17:30	27.3	1	20000	20000		17:30	27.3	1	20000	20000
	18:30	19	1	20000	20000		18:30	19	1	20000	20000
	19:30	10.6	1	20000	20000		19:30	10.6	1	20000	20000
	20:30	2.6	1	20000	20000		20:30	2.6	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 14/Aug	00:30	0	0	20000	0	Tue, 14/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.5	1	20000	20000		06:30	5.5	1	20000	20000
	07:30	13.7	1	20000	20000		07:30	13.7	1	20000	20000
	08:30	22	1	20000	20000		08:30	22	1	20000	20000
	09:30	30.2	1	20000	20000		09:30	30.2	1	20000	20000
	10:30	37.6	1	20000	20000		10:30	37.6	1	20000	20000
	11:30	43.7	1	20000	20000		11:30	43.7	1	20000	20000
	12:30	47.6	1	20000	20000		12:30	47.6	1	20000	20000
	13:30	48.5	1	20000	20000		13:30	48.5	1	20000	20000
	14:30	46.3	1	20000	20000		14:30	46.3	1	20000	20000
	15:30	41.5	1	20000	20000		15:30	41.5	1	20000	20000
	16:30	34.8	1	20000	20000		16:30	34.8	1	20000	20000
	17:30	27	1	20000	20000		17:30	27	1	20000	20000
	18:30	18.7	1	20000	20000		18:30	18.7	1	20000	20000
	19:30	10.3	1	20000	20000		19:30	10.3	1	20000	20000
	20:30	2.3	1	20000	20000		20:30	2.3	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 15/Aug	00:30	0	0	20000	0	Wed, 15/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5.2	1	20000	20000		06:30	5.2	1	20000	20000
	07:30	13.4	1	20000	20000		07:30	13.4	1	20000	20000
	08:30	21.8	1	20000	20000		08:30	21.8	1	20000	20000
	09:30	30	1	20000	20000		09:30	30	1	20000	20000
	10:30	37.4	1	20000	20000		10:30	37.4	1	20000	20000
	11:30	43.4	1	20000	20000		11:30	43.4	1	20000	20000
	12:30	47.3	1	20000	20000		12:30	47.3	1	20000	20000
	13:30	48.2	1	20000	20000		13:30	48.2	1	20000	20000
	14:30	46	1	20000	20000		14:30	46	1	20000	20000
	15:30	41.2	1	20000	20000		15:30	41.2	1	20000	20000
	16:30	34.5	1	20000	20000		16:30	34.5	1	20000	20000
	17:30	26.7	1	20000	20000		17:30	26.7	1	20000	20000
	18:30	18.4	1	20000	20000		18:30	18.4	1	20000	20000
	19:30	10.1	1	20000	20000		19:30	10.1	1	20000	20000
	20:30	2	1	20000	20000		20:30	2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 16/Aug	00:30	0	0	20000	0	Thu, 16/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	5	1	20000	20000		06:30	5	1	20000	20000
	07:30	13.2	1	20000	20000		07:30	13.2	1	20000	20000
	08:30	21.6	1	20000	20000		08:30	21.6	1	20000	20000
	09:30	29.7	1	20000	20000		09:30	29.7	1	20000	20000
	10:30	37.1	1	20000	20000		10:30	37.1	1	20000	20000
	11:30	43.1	1	20000	20000		11:30	43.1	1	20000	20000
	12:30	47	1	20000	20000		12:30	47	1	20000	20000
	13:30	47.9	1	20000	20000		13:30	47.9	1	20000	20000
	14:30	45.7	1	20000	20000		14:30	45.7	1	20000	20000
	15:30	40.9	1	20000	20000		15:30	40.9	1	20000	20000
	16:30	34.2	1	20000	20000		16:30	34.2	1	20000	20000
	17:30	26.4	1	20000	20000		17:30	26.4	1	20000	20000
	18:30	18.1	1	20000	20000		18:30	18.1	1	20000	20000
	19:30	9.8	1	20000	20000		19:30	9.8	1	20000	20000
	20:30	1.7	1	20000	20000		20:30	1.7	1	20000	20000

	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 17/Aug	00:30	0	0	20000	0	Fri, 17/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.8	1	20000	20000		06:30	4.8	1	20000	20000
	07:30	13	1	20000	20000		07:30	13	1	20000	20000
	08:30	21.4	1	20000	20000		08:30	21.4	1	20000	20000
	09:30	29.5	1	20000	20000		09:30	29.5	1	20000	20000
	10:30	36.9	1	20000	20000		10:30	36.9	1	20000	20000
	11:30	42.9	1	20000	20000		11:30	42.9	1	20000	20000
	12:30	46.7	1	20000	20000		12:30	46.7	1	20000	20000
	13:30	47.6	1	20000	20000		13:30	47.6	1	20000	20000
	14:30	45.4	1	20000	20000		14:30	45.4	1	20000	20000
	15:30	40.6	1	20000	20000		15:30	40.6	1	20000	20000
	16:30	33.9	1	20000	20000		16:30	33.9	1	20000	20000
	17:30	26.1	1	20000	20000		17:30	26.1	1	20000	20000
	18:30	17.8	1	20000	20000		18:30	17.8	1	20000	20000
	19:30	9.5	1	20000	20000		19:30	9.5	1	20000	20000
	20:30	1.4	1	20000	20000		20:30	1.4	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 18/Aug	00:30	0	0	20000	0	Sat, 18/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.5	1	20000	20000		06:30	4.5	1	20000	20000
	07:30	12.7	1	20000	20000		07:30	12.7	1	20000	20000
	08:30	21.1	1	20000	20000		08:30	21.1	1	20000	20000
	09:30	29.2	1	20000	20000		09:30	29.2	1	20000	20000
	10:30	36.6	1	20000	20000		10:30	36.6	1	20000	20000
	11:30	42.6	1	20000	20000		11:30	42.6	1	20000	20000
	12:30	46.4	1	20000	20000		12:30	46.4	1	20000	20000
	13:30	47.2	1	20000	20000		13:30	47.2	1	20000	20000
	14:30	45.1	1	20000	20000		14:30	45.1	1	20000	20000
	15:30	40.3	1	20000	20000		15:30	40.3	1	20000	20000
	16:30	33.6	1	20000	20000		16:30	33.6	1	20000	20000
	17:30	25.8	1	20000	20000		17:30	25.8	1	20000	20000
	18:30	17.6	1	20000	20000		18:30	17.6	1	20000	20000
	19:30	9.2	1	20000	20000		19:30	9.2	1	20000	20000
	20:30	1.1	1	20000	20000		20:30	1.1	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 19/Aug	00:30	0	0	20000	0	Sun, 19/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4.3	1	20000	20000		06:30	4.3	1	20000	20000
	07:30	12.5	1	20000	20000		07:30	12.5	1	20000	20000
	08:30	20.9	1	20000	20000		08:30	20.9	1	20000	20000
	09:30	29	1	20000	20000		09:30	29	1	20000	20000
	10:30	36.4	1	20000	20000		10:30	36.4	1	20000	20000
	11:30	42.3	1	20000	20000		11:30	42.3	1	20000	20000
	12:30	46	1	20000	20000		12:30	46	1	20000	20000
	13:30	46.9	1	20000	20000		13:30	46.9	1	20000	20000
	14:30	44.7	1	20000	20000		14:30	44.7	1	20000	20000
	15:30	39.9	1	20000	20000		15:30	39.9	1	20000	20000
	16:30	33.3	1	20000	20000		16:30	33.3	1	20000	20000
	17:30	25.5	1	20000	20000		17:30	25.5	1	20000	20000
	18:30	17.3	1	20000	20000		18:30	17.3	1	20000	20000
	19:30	8.9	1	20000	20000		19:30	8.9	1	20000	20000
	20:30	0.8	1	20000	20000		20:30	0.8	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 20/Aug	00:30	0	0	20000	0	Mon, 20/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	4	1	20000	20000		06:30	4	1	20000	20000
	07:30	12.3	1	20000	20000		07:30	12.3	1	20000	20000
	08:30	20.7	1	20000	20000		08:30	20.7	1	20000	20000
	09:30	28.8	1	20000	20000		09:30	28.8	1	20000	20000
	10:30	36.1	1	20000	20000		10:30	36.1	1	20000	20000
	11:30	42	1	20000	20000		11:30	42	1	20000	20000
	12:30	45.7	1	20000	20000		12:30	45.7	1	20000	20000
	13:30	46.6	1	20000	20000		13:30	46.6	1	20000	20000
	14:30	44.4	1	20000	20000		14:30	44.4	1	20000	20000
	15:30	39.6	1	20000	20000		15:30	39.6	1	20000	20000
	16:30	33	1	20000	20000		16:30	33	1	20000	20000
	17:30	25.2	1	20000	20000		17:30	25.2	1	20000	20000
	18:30	17	1	20000	20000		18:30	17	1	20000	20000
	19:30	8.6	1	20000	20000		19:30	8.6	1	20000	20000
	20:30	0.5	1	20000	20000		20:30	0.5	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 21/Aug	00:30	0	0	20000	0	Tue, 21/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.8	1	20000	20000		06:30	3.8	1	20000	20000
	07:30	12	1	20000	20000		07:30	12	1	20000	20000
	08:30	20.4	1	20000	20000		08:30	20.4	1	20000	20000
	09:30	28.5	1	20000	20000		09:30	28.5	1	20000	20000
	10:30	35.8	1	20000	20000		10:30	35.8	1	20000	20000
	11:30	41.7	1	20000	20000		11:30	41.7	1	20000	20000
	12:30	45.4	1	20000	20000		12:30	45.4	1	20000	20000
	13:30	46.3	1	20000	20000		13:30	46.3	1	20000	20000
	14:30	44.1	1	20000	20000		14:30	44.1	1	20000	20000
	15:30	39.3	1	20000	20000		15:30	39.3	1	20000	20000
	16:30	32.7	1	20000	20000		16:30	32.7	1	20000	20000
	17:30	24.9	1	20000	20000		17:30	24.9	1	20000	20000
	18:30	16.7	1	20000	20000		18:30	16.7	1	20000	20000
	19:30	8.3	1	20000	20000		19:30	8.3	1	20000	20000
	20:30	0.2	1	20000	20000		20:30	0.2	1	20000	20000
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 22/Aug	00:30	0	0	20000	0	Wed, 22/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.6	1	20000	20000		06:30	3.6	1	20000	20000
	07:30	11.8	1	20000	20000		07:30	11.8	1	20000	20000
	08:30	20.2	1	20000	20000		08:30	20.2	1	20000	20000
	09:30	28.3	1	20000	20000		09:30	28.3	1	20000	20000
	10:30	35.6	1	20000	20000		10:30	35.6	1	20000	20000
	11:30	41.4	1	20000	20000		11:30	41.4	1	20000	20000
	12:30	45.1	1	20000	20000		12:30	45.1	1	20000	20000
	13:30	45.9	1	20000	20000		13:30	45.9	1	20000	20000

	14:30	43.7	1	20000	20000		14:30	43.7	1	20000	20000
	15:30	39	1	20000	20000		15:30	39	1	20000	20000
	16:30	32.3	1	20000	20000		16:30	32.3	1	20000	20000
	17:30	24.6	1	20000	20000		17:30	24.6	1	20000	20000
	18:30	16.3	1	20000	20000		18:30	16.3	1	20000	20000
	19:30	8	1	20000	20000		19:30	8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 23/Aug	00:30	0	0	20000	0	Thu, 23/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.3	1	20000	20000		06:30	3.3	1	20000	20000
	07:30	11.6	1	20000	20000		07:30	11.6	1	20000	20000
	08:30	19.9	1	20000	20000		08:30	19.9	1	20000	20000
	09:30	28	1	20000	20000		09:30	28	1	20000	20000
	10:30	35.3	1	20000	20000		10:30	35.3	1	20000	20000
	11:30	41.1	1	20000	20000		11:30	41.1	1	20000	20000
	12:30	44.8	1	20000	20000		12:30	44.8	1	20000	20000
	13:30	45.6	1	20000	20000		13:30	45.6	1	20000	20000
	14:30	43.4	1	20000	20000		14:30	43.4	1	20000	20000
	15:30	38.6	1	20000	20000		15:30	38.6	1	20000	20000
	16:30	32	1	20000	20000		16:30	32	1	20000	20000
	17:30	24.3	1	20000	20000		17:30	24.3	1	20000	20000
	18:30	16	1	20000	20000		18:30	16	1	20000	20000
	19:30	7.7	1	20000	20000		19:30	7.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 24/Aug	00:30	0	0	20000	0	Fri, 24/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	3.1	1	20000	20000		06:30	3.1	1	20000	20000
	07:30	11.3	1	20000	20000		07:30	11.3	1	20000	20000
	08:30	19.7	1	20000	20000		08:30	19.7	1	20000	20000
	09:30	27.8	1	20000	20000		09:30	27.8	1	20000	20000
	10:30	35	1	20000	20000		10:30	35	1	20000	20000
	11:30	40.8	1	20000	20000		11:30	40.8	1	20000	20000
	12:30	44.5	1	20000	20000		12:30	44.5	1	20000	20000
	13:30	45.2	1	20000	20000		13:30	45.2	1	20000	20000
	14:30	43	1	20000	20000		14:30	43	1	20000	20000
	15:30	38.3	1	20000	20000		15:30	38.3	1	20000	20000
	16:30	31.7	1	20000	20000		16:30	31.7	1	20000	20000
	17:30	24	1	20000	20000		17:30	24	1	20000	20000
	18:30	15.7	1	20000	20000		18:30	15.7	1	20000	20000
	19:30	7.3	1	20000	20000		19:30	7.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 25/Aug	00:30	0	0	20000	0	Sat, 25/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.8	1	20000	20000		06:30	2.8	1	20000	20000
	07:30	11.1	1	20000	20000		07:30	11.1	1	20000	20000
	08:30	19.5	1	20000	20000		08:30	19.5	1	20000	20000
	09:30	27.5	1	20000	20000		09:30	27.5	1	20000	20000
	10:30	34.8	1	20000	20000		10:30	34.8	1	20000	20000
	11:30	40.5	1	20000	20000		11:30	40.5	1	20000	20000
	12:30	44.1	1	20000	20000		12:30	44.1	1	20000	20000
	13:30	44.9	1	20000	20000		13:30	44.9	1	20000	20000
	14:30	42.7	1	20000	20000		14:30	42.7	1	20000	20000
	15:30	37.9	1	20000	20000		15:30	37.9	1	20000	20000
	16:30	31.4	1	20000	20000		16:30	31.4	1	20000	20000
	17:30	23.7	1	20000	20000		17:30	23.7	1	20000	20000
	18:30	15.4	1	20000	20000		18:30	15.4	1	20000	20000
	19:30	7	1	20000	20000		19:30	7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 26/Aug	00:30	0	0	20000	0	Sun, 26/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.6	1	20000	20000		06:30	2.6	1	20000	20000
	07:30	10.9	1	20000	20000		07:30	10.9	1	20000	20000
	08:30	19.2	1	20000	20000		08:30	19.2	1	20000	20000
	09:30	27.3	1	20000	20000		09:30	27.3	1	20000	20000
	10:30	34.5	1	20000	20000		10:30	34.5	1	20000	20000
	11:30	40.2	1	20000	20000		11:30	40.2	1	20000	20000
	12:30	43.8	1	20000	20000		12:30	43.8	1	20000	20000
	13:30	44.6	1	20000	20000		13:30	44.6	1	20000	20000
	14:30	42.3	1	20000	20000		14:30	42.3	1	20000	20000
	15:30	37.6	1	20000	20000		15:30	37.6	1	20000	20000
	16:30	31	1	20000	20000		16:30	31	1	20000	20000
	17:30	23.3	1	20000	20000		17:30	23.3	1	20000	20000
	18:30	15.1	1	20000	20000		18:30	15.1	1	20000	20000
	19:30	6.7	1	20000	20000		19:30	6.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 27/Aug	00:30	0	0	20000	0	Mon, 27/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.3	1	20000	20000		06:30	2.3	1	20000	20000
	07:30	10.6	1	20000	20000		07:30	10.6	1	20000	20000
	08:30	19	1	20000	20000		08:30	19	1	20000	20000
	09:30	27	1	20000	20000		09:30	27	1	20000	20000
	10:30	34.2	1	20000	20000		10:30	34.2	1	20000	20000
	11:30	39.9	1	20000	20000		11:30	39.9	1	20000	20000
	12:30	43.5	1	20000	20000		12:30	43.5	1	20000	20000
	13:30	44.2	1	20000	20000		13:30	44.2	1	20000	20000
	14:30	42	1	20000	20000		14:30	42	1	20000	20000
	15:30	37.3	1	20000	20000		15:30	37.3	1	20000	20000
	16:30	30.7	1	20000	20000		16:30	30.7	1	20000	20000
	17:30	23	1	20000	20000		17:30	23	1	20000	20000
	18:30	14.7	1	20000	20000		18:30	14.7	1	20000	20000
	19:30	6.4	1	20000	20000		19:30	6.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 28/Aug	00:30	0	0	20000	0	Tue, 28/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	2.1	1	20000	20000		06:30	2.1	1	20000	20000

	07:30	10.4	1	20000	20000		07:30	10.4	1	20000	20000
	08:30	18.7	1	20000	20000		08:30	18.7	1	20000	20000
	09:30	26.7	1	20000	20000		09:30	26.7	1	20000	20000
	10:30	33.9	1	20000	20000		10:30	33.9	1	20000	20000
	11:30	39.6	1	20000	20000		11:30	39.6	1	20000	20000
	12:30	43.1	1	20000	20000		12:30	43.1	1	20000	20000
	13:30	43.9	1	20000	20000		13:30	43.9	1	20000	20000
	14:30	41.6	1	20000	20000		14:30	41.6	1	20000	20000
	15:30	36.9	1	20000	20000		15:30	36.9	1	20000	20000
	16:30	30.3	1	20000	20000		16:30	30.3	1	20000	20000
	17:30	22.7	1	20000	20000		17:30	22.7	1	20000	20000
	18:30	14.4	1	20000	20000		18:30	14.4	1	20000	20000
	19:30	6	1	20000	20000		19:30	6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 29/Aug	00:30	0	0	20000	0	Wed, 29/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.8	1	20000	20000		06:30	1.8	1	20000	20000
	07:30	10.1	1	20000	20000		07:30	10.1	1	20000	20000
	08:30	18.5	1	20000	20000		08:30	18.5	1	20000	20000
	09:30	26.5	1	20000	20000		09:30	26.5	1	20000	20000
	10:30	33.6	1	20000	20000		10:30	33.6	1	20000	20000
	11:30	39.3	1	20000	20000		11:30	39.3	1	20000	20000
	12:30	42.8	1	20000	20000		12:30	42.8	1	20000	20000
	13:30	43.5	1	20000	20000		13:30	43.5	1	20000	20000
	14:30	41.3	1	20000	20000		14:30	41.3	1	20000	20000
	15:30	36.5	1	20000	20000		15:30	36.5	1	20000	20000
	16:30	30	1	20000	20000		16:30	30	1	20000	20000
	17:30	22.3	1	20000	20000		17:30	22.3	1	20000	20000
	18:30	14.1	1	20000	20000		18:30	14.1	1	20000	20000
	19:30	5.7	1	20000	20000		19:30	5.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 30/Aug	00:30	0	0	20000	0	Thu, 30/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.6	1	20000	20000		06:30	1.6	1	20000	20000
	07:30	9.9	1	20000	20000		07:30	9.9	1	20000	20000
	08:30	18.2	1	20000	20000		08:30	18.2	1	20000	20000
	09:30	26.2	1	20000	20000		09:30	26.2	1	20000	20000
	10:30	33.4	1	20000	20000		10:30	33.4	1	20000	20000
	11:30	39	1	20000	20000		11:30	39	1	20000	20000
	12:30	42.5	1	20000	20000		12:30	42.5	1	20000	20000
	13:30	43.1	1	20000	20000		13:30	43.1	1	20000	20000
	14:30	40.9	1	20000	20000		14:30	40.9	1	20000	20000
	15:30	36.2	1	20000	20000		15:30	36.2	1	20000	20000
	16:30	29.7	1	20000	20000		16:30	29.7	1	20000	20000
	17:30	22	1	20000	20000		17:30	22	1	20000	20000
	18:30	13.7	1	20000	20000		18:30	13.7	1	20000	20000
	19:30	5.4	1	20000	20000		19:30	5.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 31/Aug	00:30	0	0	20000	0	Fri, 31/Aug	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.3	1	20000	20000		06:30	1.3	1	20000	20000
	07:30	9.6	1	20000	20000		07:30	9.6	1	20000	20000
	08:30	18	1	20000	20000		08:30	18	1	20000	20000
	09:30	26	1	20000	20000		09:30	26	1	20000	20000
	10:30	33.1	1	20000	20000		10:30	33.1	1	20000	20000
	11:30	38.7	1	20000	20000		11:30	38.7	1	20000	20000
	12:30	42.1	1	20000	20000		12:30	42.1	1	20000	20000
	13:30	42.8	1	20000	20000		13:30	42.8	1	20000	20000
	14:30	40.5	1	20000	20000		14:30	40.5	1	20000	20000
	15:30	35.8	1	20000	20000		15:30	35.8	1	20000	20000
	16:30	29.3	1	20000	20000		16:30	29.3	1	20000	20000
	17:30	21.6	1	20000	20000		17:30	21.6	1	20000	20000
	18:30	13.4	1	20000	20000		18:30	13.4	1	20000	20000
	19:30	5	1	20000	20000		19:30	5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 01/Sep	00:30	0	0	20000	0	Sat, 01/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	1.1	1	20000	20000		06:30	1.1	1	20000	20000
	07:30	9.4	1	20000	20000		07:30	9.4	1	20000	20000
	08:30	17.7	1	20000	20000		08:30	17.7	1	20000	20000
	09:30	25.7	1	20000	20000		09:30	25.7	1	20000	20000
	10:30	32.8	1	20000	20000		10:30	32.8	1	20000	20000
	11:30	38.4	1	20000	20000		11:30	38.4	1	20000	20000
	12:30	41.8	1	20000	20000		12:30	41.8	1	20000	20000
	13:30	42.4	1	20000	20000		13:30	42.4	1	20000	20000
	14:30	40.2	1	20000	20000		14:30	40.2	1	20000	20000
	15:30	35.5	1	20000	20000		15:30	35.5	1	20000	20000
	16:30	28.9	1	20000	20000		16:30	28.9	1	20000	20000
	17:30	21.3	1	20000	20000		17:30	21.3	1	20000	20000
	18:30	13.1	1	20000	20000		18:30	13.1	1	20000	20000
	19:30	4.7	1	20000	20000		19:30	4.7	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 02/Sep	00:30	0	0	20000	0	Sun, 02/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.8	1	20000	20000		06:30	0.8	1	20000	20000
	07:30	9.1	1	20000	20000		07:30	9.1	1	20000	20000
	08:30	17.5	1	20000	20000		08:30	17.5	1	20000	20000
	09:30	25.4	1	20000	20000		09:30	25.4	1	20000	20000
	10:30	32.5	1	20000	20000		10:30	32.5	1	20000	20000
	11:30	38.1	1	20000	20000		11:30	38.1	1	20000	20000
	12:30	41.4	1	20000	20000		12:30	41.4	1	20000	20000
	13:30	42.1	1	20000	20000		13:30	42.1	1	20000	20000
	14:30	39.8	1	20000	20000		14:30	39.8	1	20000	20000
	15:30	35.1	1	20000	20000		15:30	35.1	1	20000	20000
	16:30	28.6	1	20000	20000		16:30	28.6	1	20000	20000
	17:30	20.9	1	20000	20000		17:30	20.9	1	20000	20000
	18:30	12.7	1	20000	20000		18:30	12.7	1	20000	20000
	19:30	4.3	1	20000	20000		19:30	4.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0

Mon, 03/Sep	00:30	0	0	20000	0	Mon, 03/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.5	1	20000	20000		06:30	0.5	1	20000	20000
	07:30	8.9	1	20000	20000		07:30	8.9	1	20000	20000
	08:30	17.2	1	20000	20000		08:30	17.2	1	20000	20000
	09:30	25.2	1	20000	20000		09:30	25.2	1	20000	20000
	10:30	32.2	1	20000	20000		10:30	32.2	1	20000	20000
	11:30	37.7	1	20000	20000		11:30	37.7	1	20000	20000
	12:30	41.1	1	20000	20000		12:30	41.1	1	20000	20000
	13:30	41.7	1	20000	20000		13:30	41.7	1	20000	20000
	14:30	39.4	1	20000	20000		14:30	39.4	1	20000	20000
	15:30	34.7	1	20000	20000		15:30	34.7	1	20000	20000
	16:30	28.2	1	20000	20000		16:30	28.2	1	20000	20000
	17:30	20.6	1	20000	20000		17:30	20.6	1	20000	20000
	18:30	12.4	1	20000	20000		18:30	12.4	1	20000	20000
	19:30	4	1	20000	20000		19:30	4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 04/Sep	00:30	0	0	20000	0	Tue, 04/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0.3	1	20000	20000		06:30	0.3	1	20000	20000
	07:30	8.6	1	20000	20000		07:30	8.6	1	20000	20000
	08:30	17	1	20000	20000		08:30	17	1	20000	20000
	09:30	24.9	1	20000	20000		09:30	24.9	1	20000	20000
	10:30	31.9	1	20000	20000		10:30	31.9	1	20000	20000
	11:30	37.4	1	20000	20000		11:30	37.4	1	20000	20000
	12:30	40.7	1	20000	20000		12:30	40.7	1	20000	20000
	13:30	41.3	1	20000	20000		13:30	41.3	1	20000	20000
	14:30	39.1	1	20000	20000		14:30	39.1	1	20000	20000
	15:30	34.4	1	20000	20000		15:30	34.4	1	20000	20000
	16:30	27.9	1	20000	20000		16:30	27.9	1	20000	20000
	17:30	20.2	1	20000	20000		17:30	20.2	1	20000	20000
	18:30	12	1	20000	20000		18:30	12	1	20000	20000
	19:30	3.6	1	20000	20000		19:30	3.6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 05/Sep	00:30	0	0	20000	0	Wed, 05/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.4	1	20000	20000		07:30	8.4	1	20000	20000
	08:30	16.7	1	20000	20000		08:30	16.7	1	20000	20000
	09:30	24.6	1	20000	20000		09:30	24.6	1	20000	20000
	10:30	31.6	1	20000	20000		10:30	31.6	1	20000	20000
	11:30	37.1	1	20000	20000		11:30	37.1	1	20000	20000
	12:30	40.4	1	20000	20000		12:30	40.4	1	20000	20000
	13:30	40.9	1	20000	20000		13:30	40.9	1	20000	20000
	14:30	38.7	1	20000	20000		14:30	38.7	1	20000	20000
	15:30	34	1	20000	20000		15:30	34	1	20000	20000
	16:30	27.5	1	20000	20000		16:30	27.5	1	20000	20000
	17:30	19.9	1	20000	20000		17:30	19.9	1	20000	20000
	18:30	11.7	1	20000	20000		18:30	11.7	1	20000	20000
	19:30	3.3	1	20000	20000		19:30	3.3	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 06/Sep	00:30	0	0	20000	0	Thu, 06/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	8.1	1	20000	20000		07:30	8.1	1	20000	20000
	08:30	16.4	1	20000	20000		08:30	16.4	1	20000	20000
	09:30	24.3	1	20000	20000		09:30	24.3	1	20000	20000
	10:30	31.3	1	20000	20000		10:30	31.3	1	20000	20000
	11:30	36.8	1	20000	20000		11:30	36.8	1	20000	20000
	12:30	40	1	20000	20000		12:30	40	1	20000	20000
	13:30	40.6	1	20000	20000		13:30	40.6	1	20000	20000
	14:30	38.3	1	20000	20000		14:30	38.3	1	20000	20000
	15:30	33.6	1	20000	20000		15:30	33.6	1	20000	20000
	16:30	27.1	1	20000	20000		16:30	27.1	1	20000	20000
	17:30	19.5	1	20000	20000		17:30	19.5	1	20000	20000
	18:30	11.3	1	20000	20000		18:30	11.3	1	20000	20000
	19:30	2.9	1	20000	20000		19:30	2.9	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 07/Sep	00:30	0	0	20000	0	Fri, 07/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.8	1	20000	20000		07:30	7.8	1	20000	20000
	08:30	16.2	1	20000	20000		08:30	16.2	1	20000	20000
	09:30	24.1	1	20000	20000		09:30	24.1	1	20000	20000
	10:30	31	1	20000	20000		10:30	31	1	20000	20000
	11:30	36.4	1	20000	20000		11:30	36.4	1	20000	20000
	12:30	39.7	1	20000	20000		12:30	39.7	1	20000	20000
	13:30	40.2	1	20000	20000		13:30	40.2	1	20000	20000
	14:30	37.9	1	20000	20000		14:30	37.9	1	20000	20000
	15:30	33.2	1	20000	20000		15:30	33.2	1	20000	20000
	16:30	26.8	1	20000	20000		16:30	26.8	1	20000	20000
	17:30	19.2	1	20000	20000		17:30	19.2	1	20000	20000
	18:30	10.9	1	20000	20000		18:30	10.9	1	20000	20000
	19:30	2.6	1	20000	20000		19:30	2.6	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 08/Sep	00:30	0	0	20000	0	Sat, 08/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.6	1	20000	20000		07:30	7.6	1	20000	20000
	08:30	15.9	1	20000	20000		08:30	15.9	1	20000	20000
	09:30	23.8	1	20000	20000		09:30	23.8	1	20000	20000
	10:30	30.7	1	20000	20000		10:30	30.7	1	20000	20000
	11:30	36.1	1	20000	20000		11:30	36.1	1	20000	20000
	12:30	39.3	1	20000	20000		12:30	39.3	1	20000	20000
	13:30	39.8	1	20000	20000		13:30	39.8	1	20000	20000
	14:30	37.5	1	20000	20000		14:30	37.5	1	20000	20000
	15:30	32.9	1	20000	20000		15:30	32.9	1	20000	20000
	16:30	26.4	1	20000	20000		16:30	26.4	1	20000	20000

	17:30	18.8	1	20000	20000		17:30	18.8	1	20000	20000
	18:30	10.6	1	20000	20000		18:30	10.6	1	20000	20000
	19:30	2.2	1	20000	20000		19:30	2.2	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 09/Sep	00:30	0	0	20000	0	Sun, 09/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.3	1	20000	20000		07:30	7.3	1	20000	20000
	08:30	15.6	1	20000	20000		08:30	15.6	1	20000	20000
	09:30	23.5	1	20000	20000		09:30	23.5	1	20000	20000
	10:30	30.4	1	20000	20000		10:30	30.4	1	20000	20000
	11:30	35.8	1	20000	20000		11:30	35.8	1	20000	20000
	12:30	38.9	1	20000	20000		12:30	38.9	1	20000	20000
	13:30	39.4	1	20000	20000		13:30	39.4	1	20000	20000
	14:30	37.2	1	20000	20000		14:30	37.2	1	20000	20000
	15:30	32.5	1	20000	20000		15:30	32.5	1	20000	20000
	16:30	26	1	20000	20000		16:30	26	1	20000	20000
	17:30	18.4	1	20000	20000		17:30	18.4	1	20000	20000
	18:30	10.2	1	20000	20000		18:30	10.2	1	20000	20000
	19:30	1.8	1	20000	20000		19:30	1.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 10/Sep	00:30	0	0	20000	0	Mon, 10/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	7.1	1	20000	20000		07:30	7.1	1	20000	20000
	08:30	15.4	1	20000	20000		08:30	15.4	1	20000	20000
	09:30	23.2	1	20000	20000		09:30	23.2	1	20000	20000
	10:30	30.1	1	20000	20000		10:30	30.1	1	20000	20000
	11:30	35.4	1	20000	20000		11:30	35.4	1	20000	20000
	12:30	38.6	1	20000	20000		12:30	38.6	1	20000	20000
	13:30	39.1	1	20000	20000		13:30	39.1	1	20000	20000
	14:30	36.8	1	20000	20000		14:30	36.8	1	20000	20000
	15:30	32.1	1	20000	20000		15:30	32.1	1	20000	20000
	16:30	25.7	1	20000	20000		16:30	25.7	1	20000	20000
	17:30	18.1	1	20000	20000		17:30	18.1	1	20000	20000
	18:30	9.9	1	20000	20000		18:30	9.9	1	20000	20000
	19:30	1.5	1	20000	20000		19:30	1.5	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 11/Sep	00:30	0	0	20000	0	Tue, 11/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.8	1	20000	20000		07:30	6.8	1	20000	20000
	08:30	15.1	1	20000	20000		08:30	15.1	1	20000	20000
	09:30	22.9	1	20000	20000		09:30	22.9	1	20000	20000
	10:30	29.8	1	20000	20000		10:30	29.8	1	20000	20000
	11:30	35.1	1	20000	20000		11:30	35.1	1	20000	20000
	12:30	38.2	1	20000	20000		12:30	38.2	1	20000	20000
	13:30	38.7	1	20000	20000		13:30	38.7	1	20000	20000
	14:30	36.4	1	20000	20000		14:30	36.4	1	20000	20000
	15:30	31.7	1	20000	20000		15:30	31.7	1	20000	20000
	16:30	25.3	1	20000	20000		16:30	25.3	1	20000	20000
	17:30	17.7	1	20000	20000		17:30	17.7	1	20000	20000
	18:30	9.5	1	20000	20000		18:30	9.5	1	20000	20000
	19:30	1.1	1	20000	20000		19:30	1.1	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 12/Sep	00:30	0	0	20000	0	Wed, 12/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.5	1	20000	20000		07:30	6.5	1	20000	20000
	08:30	14.8	1	20000	20000		08:30	14.8	1	20000	20000
	09:30	22.7	1	20000	20000		09:30	22.7	1	20000	20000
	10:30	29.5	1	20000	20000		10:30	29.5	1	20000	20000
	11:30	34.8	1	20000	20000		11:30	34.8	1	20000	20000
	12:30	37.9	1	20000	20000		12:30	37.9	1	20000	20000
	13:30	38.3	1	20000	20000		13:30	38.3	1	20000	20000
	14:30	36	1	20000	20000		14:30	36	1	20000	20000
	15:30	31.3	1	20000	20000		15:30	31.3	1	20000	20000
	16:30	24.9	1	20000	20000		16:30	24.9	1	20000	20000
	17:30	17.3	1	20000	20000		17:30	17.3	1	20000	20000
	18:30	9.1	1	20000	20000		18:30	9.1	1	20000	20000
	19:30	0.8	1	20000	20000		19:30	0.8	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 13/Sep	00:30	0	0	20000	0	Thu, 13/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	6.3	1	20000	20000		07:30	6.3	1	20000	20000
	08:30	14.6	1	20000	20000		08:30	14.6	1	20000	20000
	09:30	22.4	1	20000	20000		09:30	22.4	1	20000	20000
	10:30	29.2	1	20000	20000		10:30	29.2	1	20000	20000
	11:30	34.4	1	20000	20000		11:30	34.4	1	20000	20000
	12:30	37.5	1	20000	20000		12:30	37.5	1	20000	20000
	13:30	37.9	1	20000	20000		13:30	37.9	1	20000	20000
	14:30	35.6	1	20000	20000		14:30	35.6	1	20000	20000
	15:30	30.9	1	20000	20000		15:30	30.9	1	20000	20000
	16:30	24.5	1	20000	20000		16:30	24.5	1	20000	20000
	17:30	17	1	20000	20000		17:30	17	1	20000	20000
	18:30	8.8	1	20000	20000		18:30	8.8	1	20000	20000
	19:30	0.4	1	20000	20000		19:30	0.4	1	20000	20000
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 14/Sep	00:30	0	0	20000	0	Fri, 14/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	08:30	14.3	1	20000	20000		08:30	14.3	1	20000	20000
	09:30	22.1	1	20000	20000		09:30	22.1	1	20000	20000

	10:30	28.9	1	20000	20000		10:30	28.9	1	20000	20000
	11:30	34.1	1	20000	20000		11:30	34.1	1	20000	20000
	12:30	37.1	1	20000	20000		12:30	37.1	1	20000	20000
	13:30	37.5	1	20000	20000		13:30	37.5	1	20000	20000
	14:30	35.2	1	20000	20000		14:30	35.2	1	20000	20000
	15:30	30.5	1	20000	20000		15:30	30.5	1	20000	20000
	16:30	24.1	1	20000	20000		16:30	24.1	1	20000	20000
	17:30	16.6	1	20000	20000		17:30	16.6	1	20000	20000
	18:30	8.4	1	20000	20000		18:30	8.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 15/Sep	00:30	0	0	20000	0	Sat, 15/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.8	1	20000	20000		07:30	5.8	1	20000	20000
	08:30	14	1	20000	20000		08:30	14	1	20000	20000
	09:30	21.8	1	20000	20000		09:30	21.8	1	20000	20000
	10:30	28.6	1	20000	20000		10:30	28.6	1	20000	20000
	11:30	33.8	1	20000	20000		11:30	33.8	1	20000	20000
	12:30	36.8	1	20000	20000		12:30	36.8	1	20000	20000
	13:30	37.1	1	20000	20000		13:30	37.1	1	20000	20000
	14:30	34.8	1	20000	20000		14:30	34.8	1	20000	20000
	15:30	30.2	1	20000	20000		15:30	30.2	1	20000	20000
	16:30	23.8	1	20000	20000		16:30	23.8	1	20000	20000
	17:30	16.2	1	20000	20000		17:30	16.2	1	20000	20000
	18:30	8	1	20000	20000		18:30	8	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 16/Sep	00:30	0	0	20000	0	Sun, 16/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.5	1	20000	20000		07:30	5.5	1	20000	20000
	08:30	13.8	1	20000	20000		08:30	13.8	1	20000	20000
	09:30	21.5	1	20000	20000		09:30	21.5	1	20000	20000
	10:30	28.3	1	20000	20000		10:30	28.3	1	20000	20000
	11:30	33.4	1	20000	20000		11:30	33.4	1	20000	20000
	12:30	36.4	1	20000	20000		12:30	36.4	1	20000	20000
	13:30	36.7	1	20000	20000		13:30	36.7	1	20000	20000
	14:30	34.4	1	20000	20000		14:30	34.4	1	20000	20000
	15:30	29.8	1	20000	20000		15:30	29.8	1	20000	20000
	16:30	23.4	1	20000	20000		16:30	23.4	1	20000	20000
	17:30	15.8	1	20000	20000		17:30	15.8	1	20000	20000
	18:30	7.7	1	20000	20000		18:30	7.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 17/Sep	00:30	0	0	20000	0	Mon, 17/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5.2	1	20000	20000		07:30	5.2	1	20000	20000
	08:30	13.5	1	20000	20000		08:30	13.5	1	20000	20000
	09:30	21.2	1	20000	20000		09:30	21.2	1	20000	20000
	10:30	27.9	1	20000	20000		10:30	27.9	1	20000	20000
	11:30	33.1	1	20000	20000		11:30	33.1	1	20000	20000
	12:30	36	1	20000	20000		12:30	36	1	20000	20000
	13:30	36.3	1	20000	20000		13:30	36.3	1	20000	20000
	14:30	34	1	20000	20000		14:30	34	1	20000	20000
	15:30	29.4	1	20000	20000		15:30	29.4	1	20000	20000
	16:30	23	1	20000	20000		16:30	23	1	20000	20000
	17:30	15.5	1	20000	20000		17:30	15.5	1	20000	20000
	18:30	7.3	1	20000	20000		18:30	7.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 18/Sep	00:30	0	0	20000	0	Tue, 18/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	5	1	20000	20000		07:30	5	1	20000	20000
	08:30	13.2	1	20000	20000		08:30	13.2	1	20000	20000
	09:30	20.9	1	20000	20000		09:30	20.9	1	20000	20000
	10:30	27.6	1	20000	20000		10:30	27.6	1	20000	20000
	11:30	32.7	1	20000	20000		11:30	32.7	1	20000	20000
	12:30	35.6	1	20000	20000		12:30	35.6	1	20000	20000
	13:30	36	1	20000	20000		13:30	36	1	20000	20000
	14:30	33.6	1	20000	20000		14:30	33.6	1	20000	20000
	15:30	29	1	20000	20000		15:30	29	1	20000	20000
	16:30	22.6	1	20000	20000		16:30	22.6	1	20000	20000
	17:30	15.1	1	20000	20000		17:30	15.1	1	20000	20000
	18:30	6.9	1	20000	20000		18:30	6.9	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 19/Sep	00:30	0	0	20000	0	Wed, 19/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.7	1	20000	20000		07:30	4.7	1	20000	20000
	08:30	12.9	1	20000	20000		08:30	12.9	1	20000	20000
	09:30	20.6	1	20000	20000		09:30	20.6	1	20000	20000
	10:30	27.3	1	20000	20000		10:30	27.3	1	20000	20000
	11:30	32.4	1	20000	20000		11:30	32.4	1	20000	20000
	12:30	35.3	1	20000	20000		12:30	35.3	1	20000	20000
	13:30	35.6	1	20000	20000		13:30	35.6	1	20000	20000
	14:30	33.2	1	20000	20000		14:30	33.2	1	20000	20000
	15:30	28.6	1	20000	20000		15:30	28.6	1	20000	20000
	16:30	22.2	1	20000	20000		16:30	22.2	1	20000	20000
	17:30	14.7	1	20000	20000		17:30	14.7	1	20000	20000
	18:30	6.5	1	20000	20000		18:30	6.5	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 20/Sep	00:30	0	0	20000	0	Thu, 20/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0

	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.4	1	20000	20000		07:30	4.4	1	20000	20000
	08:30	12.7	1	20000	20000		08:30	12.7	1	20000	20000
	09:30	20.3	1	20000	20000		09:30	20.3	1	20000	20000
	10:30	27	1	20000	20000		10:30	27	1	20000	20000
	11:30	32	1	20000	20000		11:30	32	1	20000	20000
	12:30	34.9	1	20000	20000		12:30	34.9	1	20000	20000
	13:30	35.2	1	20000	20000		13:30	35.2	1	20000	20000
	14:30	32.8	1	20000	20000		14:30	32.8	1	20000	20000
	15:30	28.2	1	20000	20000		15:30	28.2	1	20000	20000
	16:30	21.8	1	20000	20000		16:30	21.8	1	20000	20000
	17:30	14.3	1	20000	20000		17:30	14.3	1	20000	20000
	18:30	6.2	1	20000	20000		18:30	6.2	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 21/Sep	00:30	0	0	20000	0	Fri, 21/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	4.2	1	20000	20000		07:30	4.2	1	20000	20000
	08:30	12.4	1	20000	20000		08:30	12.4	1	20000	20000
	09:30	20.1	1	20000	20000		09:30	20.1	1	20000	20000
	10:30	26.7	1	20000	20000		10:30	26.7	1	20000	20000
	11:30	31.7	1	20000	20000		11:30	31.7	1	20000	20000
	12:30	34.5	1	20000	20000		12:30	34.5	1	20000	20000
	13:30	34.8	1	20000	20000		13:30	34.8	1	20000	20000
	14:30	32.4	1	20000	20000		14:30	32.4	1	20000	20000
	15:30	27.8	1	20000	20000		15:30	27.8	1	20000	20000
	16:30	21.5	1	20000	20000		16:30	21.5	1	20000	20000
	17:30	13.9	1	20000	20000		17:30	13.9	1	20000	20000
	18:30	5.8	1	20000	20000		18:30	5.8	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 22/Sep	00:30	0	0	20000	0	Sat, 22/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.9	1	20000	20000		07:30	3.9	1	20000	20000
	08:30	12.1	1	20000	20000		08:30	12.1	1	20000	20000
	09:30	19.8	1	20000	20000		09:30	19.8	1	20000	20000
	10:30	26.3	1	20000	20000		10:30	26.3	1	20000	20000
	11:30	31.3	1	20000	20000		11:30	31.3	1	20000	20000
	12:30	34.1	1	20000	20000		12:30	34.1	1	20000	20000
	13:30	34.4	1	20000	20000		13:30	34.4	1	20000	20000
	14:30	32	1	20000	20000		14:30	32	1	20000	20000
	15:30	27.4	1	20000	20000		15:30	27.4	1	20000	20000
	16:30	21.1	1	20000	20000		16:30	21.1	1	20000	20000
	17:30	13.6	1	20000	20000		17:30	13.6	1	20000	20000
	18:30	5.4	1	20000	20000		18:30	5.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 23/Sep	00:30	0	0	20000	0	Sun, 23/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.6	1	20000	20000		07:30	3.6	1	20000	20000
	08:30	11.8	1	20000	20000		08:30	11.8	1	20000	20000
	09:30	19.5	1	20000	20000		09:30	19.5	1	20000	20000
	10:30	26	1	20000	20000		10:30	26	1	20000	20000
	11:30	31	1	20000	20000		11:30	31	1	20000	20000
	12:30	33.8	1	20000	20000		12:30	33.8	1	20000	20000
	13:30	34	1	20000	20000		13:30	34	1	20000	20000
	14:30	31.6	1	20000	20000		14:30	31.6	1	20000	20000
	15:30	27	1	20000	20000		15:30	27	1	20000	20000
	16:30	20.7	1	20000	20000		16:30	20.7	1	20000	20000
	17:30	13.2	1	20000	20000		17:30	13.2	1	20000	20000
	18:30	5	1	20000	20000		18:30	5	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 24/Sep	00:30	0	0	20000	0	Mon, 24/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.3	1	20000	20000		07:30	3.3	1	20000	20000
	08:30	11.5	1	20000	20000		08:30	11.5	1	20000	20000
	09:30	19.2	1	20000	20000		09:30	19.2	1	20000	20000
	10:30	25.7	1	20000	20000		10:30	25.7	1	20000	20000
	11:30	30.6	1	20000	20000		11:30	30.6	1	20000	20000
	12:30	33.4	1	20000	20000		12:30	33.4	1	20000	20000
	13:30	33.6	1	20000	20000		13:30	33.6	1	20000	20000
	14:30	31.2	1	20000	20000		14:30	31.2	1	20000	20000
	15:30	26.6	1	20000	20000		15:30	26.6	1	20000	20000
	16:30	20.3	1	20000	20000		16:30	20.3	1	20000	20000
	17:30	12.8	1	20000	20000		17:30	12.8	1	20000	20000
	18:30	4.7	1	20000	20000		18:30	4.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 25/Sep	00:30	0	0	20000	0	Tue, 25/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	3.1	1	20000	20000		07:30	3.1	1	20000	20000
	08:30	11.3	1	20000	20000		08:30	11.3	1	20000	20000
	09:30	18.9	1	20000	20000		09:30	18.9	1	20000	20000
	10:30	25.4	1	20000	20000		10:30	25.4	1	20000	20000
	11:30	30.3	1	20000	20000		11:30	30.3	1	20000	20000
	12:30	33	1	20000	20000		12:30	33	1	20000	20000
	13:30	33.2	1	20000	20000		13:30	33.2	1	20000	20000
	14:30	30.8	1	20000	20000		14:30	30.8	1	20000	20000
	15:30	26.2	1	20000	20000		15:30	26.2	1	20000	20000
	16:30	19.9	1	20000	20000		16:30	19.9	1	20000	20000
	17:30	12.4	1	20000	20000		17:30	12.4	1	20000	20000
	18:30	4.3	1	20000	20000		18:30	4.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0

	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 26/Sep	00:30	0	0	20000	0	Wed, 26/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.8	1	20000	20000		07:30	2.8	1	20000	20000
	08:30	11	1	20000	20000		08:30	11	1	20000	20000
	09:30	18.6	1	20000	20000		09:30	18.6	1	20000	20000
	10:30	25.1	1	20000	20000		10:30	25.1	1	20000	20000
	11:30	29.9	1	20000	20000		11:30	29.9	1	20000	20000
	12:30	32.6	1	20000	20000		12:30	32.6	1	20000	20000
	13:30	32.8	1	20000	20000		13:30	32.8	1	20000	20000
	14:30	30.4	1	20000	20000		14:30	30.4	1	20000	20000
	15:30	25.8	1	20000	20000		15:30	25.8	1	20000	20000
	16:30	19.5	1	20000	20000		16:30	19.5	1	20000	20000
	17:30	12.1	1	20000	20000		17:30	12.1	1	20000	20000
	18:30	3.9	1	20000	20000		18:30	3.9	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 27/Sep	00:30	0	0	20000	0	Thu, 27/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.5	1	20000	20000		07:30	2.5	1	20000	20000
	08:30	10.7	1	20000	20000		08:30	10.7	1	20000	20000
	09:30	18.3	1	20000	20000		09:30	18.3	1	20000	20000
	10:30	24.7	1	20000	20000		10:30	24.7	1	20000	20000
	11:30	29.6	1	20000	20000		11:30	29.6	1	20000	20000
	12:30	32.2	1	20000	20000		12:30	32.2	1	20000	20000
	13:30	32.4	1	20000	20000		13:30	32.4	1	20000	20000
	14:30	30	1	20000	20000		14:30	30	1	20000	20000
	15:30	25.4	1	20000	20000		15:30	25.4	1	20000	20000
	16:30	19.1	1	20000	20000		16:30	19.1	1	20000	20000
	17:30	11.7	1	20000	20000		17:30	11.7	1	20000	20000
	18:30	3.6	1	20000	20000		18:30	3.6	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 28/Sep	00:30	0	0	20000	0	Fri, 28/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2.2	1	20000	20000		07:30	2.2	1	20000	20000
	08:30	10.4	1	20000	20000		08:30	10.4	1	20000	20000
	09:30	18	1	20000	20000		09:30	18	1	20000	20000
	10:30	24.4	1	20000	20000		10:30	24.4	1	20000	20000
	11:30	29.2	1	20000	20000		11:30	29.2	1	20000	20000
	12:30	31.9	1	20000	20000		12:30	31.9	1	20000	20000
	13:30	32	1	20000	20000		13:30	32	1	20000	20000
	14:30	29.6	1	20000	20000		14:30	29.6	1	20000	20000
	15:30	25	1	20000	20000		15:30	25	1	20000	20000
	16:30	18.7	1	20000	20000		16:30	18.7	1	20000	20000
	17:30	11.3	1	20000	20000		17:30	11.3	1	20000	20000
	18:30	3.2	1	20000	20000		18:30	3.2	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 29/Sep	00:30	0	0	20000	0	Sat, 29/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	2	1	20000	20000		07:30	2	1	20000	20000
	08:30	10.1	1	20000	20000		08:30	10.1	1	20000	20000
	09:30	17.7	1	20000	20000		09:30	17.7	1	20000	20000
	10:30	24.1	1	20000	20000		10:30	24.1	1	20000	20000
	11:30	28.9	1	20000	20000		11:30	28.9	1	20000	20000
	12:30	31.5	1	20000	20000		12:30	31.5	1	20000	20000
	13:30	31.6	1	20000	20000		13:30	31.6	1	20000	20000
	14:30	29.2	1	20000	20000		14:30	29.2	1	20000	20000
	15:30	24.6	1	20000	20000		15:30	24.6	1	20000	20000
	16:30	18.4	1	20000	20000		16:30	18.4	1	20000	20000
	17:30	10.9	1	20000	20000		17:30	10.9	1	20000	20000
	18:30	2.8	1	20000	20000		18:30	2.8	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 30/Sep	00:30	0	0	20000	0	Sun, 30/Sep	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.7	1	20000	20000		07:30	1.7	1	20000	20000
	08:30	9.8	1	20000	20000		08:30	9.8	1	20000	20000
	09:30	17.4	1	20000	20000		09:30	17.4	1	20000	20000
	10:30	23.7	1	20000	20000		10:30	23.7	1	20000	20000
	11:30	28.5	1	20000	20000		11:30	28.5	1	20000	20000
	12:30	31.1	1	20000	20000		12:30	31.1	1	20000	20000
	13:30	31.2	1	20000	20000		13:30	31.2	1	20000	20000
	14:30	28.8	1	20000	20000		14:30	28.8	1	20000	20000
	15:30	24.3	1	20000	20000		15:30	24.3	1	20000	20000
	16:30	18	1	20000	20000		16:30	18	1	20000	20000
	17:30	10.6	1	20000	20000		17:30	10.6	1	20000	20000
	18:30	2.4	1	20000	20000		18:30	2.4	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 01/Oct	00:30	0	0	20000	0	Mon, 01/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.4	1	20000	20000		07:30	1.4	1	20000	20000
	08:30	9.6	1	20000	20000		08:30	9.6	1	20000	20000
	09:30	17	1	20000	20000		09:30	17	1	20000	20000
	10:30	23.4	1	20000	20000		10:30	23.4	1	20000	20000
	11:30	28.1	1	20000	20000		11:30	28.1	1	20000	20000
	12:30	30.7	1	20000	20000		12:30	30.7	1	20000	20000

	13:30	30.8	1	20000	20000		13:30	30.8	1	20000	20000
	14:30	28.4	1	20000	20000		14:30	28.4	1	20000	20000
	15:30	23.9	1	20000	20000		15:30	23.9	1	20000	20000
	16:30	17.6	1	20000	20000		16:30	17.6	1	20000	20000
	17:30	10.2	1	20000	20000		17:30	10.2	1	20000	20000
	18:30	2.1	1	20000	20000		18:30	2.1	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 02/Oct	00:30	0	0	20000	0	Tue, 02/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	1.1	1	20000	20000		07:30	1.1	1	20000	20000
	08:30	9.3	1	20000	20000		08:30	9.3	1	20000	20000
	09:30	16.7	1	20000	20000		09:30	16.7	1	20000	20000
	10:30	23.1	1	20000	20000		10:30	23.1	1	20000	20000
	11:30	27.8	1	20000	20000		11:30	27.8	1	20000	20000
	12:30	30.4	1	20000	20000		12:30	30.4	1	20000	20000
	13:30	30.4	1	20000	20000		13:30	30.4	1	20000	20000
	14:30	28	1	20000	20000		14:30	28	1	20000	20000
	15:30	23.5	1	20000	20000		15:30	23.5	1	20000	20000
	16:30	17.2	1	20000	20000		16:30	17.2	1	20000	20000
	17:30	9.8	1	20000	20000		17:30	9.8	1	20000	20000
	18:30	1.7	1	20000	20000		18:30	1.7	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 03/Oct	00:30	0	0	20000	0	Wed, 03/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.9	1	20000	20000		07:30	0.9	1	20000	20000
	08:30	9	1	20000	20000		08:30	9	1	20000	20000
	09:30	16.4	1	20000	20000		09:30	16.4	1	20000	20000
	10:30	22.8	1	20000	20000		10:30	22.8	1	20000	20000
	11:30	27.4	1	20000	20000		11:30	27.4	1	20000	20000
	12:30	30	1	20000	20000		12:30	30	1	20000	20000
	13:30	30	1	20000	20000		13:30	30	1	20000	20000
	14:30	27.6	1	20000	20000		14:30	27.6	1	20000	20000
	15:30	23.1	1	20000	20000		15:30	23.1	1	20000	20000
	16:30	16.8	1	20000	20000		16:30	16.8	1	20000	20000
	17:30	9.4	1	20000	20000		17:30	9.4	1	20000	20000
	18:30	1.3	1	20000	20000		18:30	1.3	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 04/Oct	00:30	0	0	20000	0	Thu, 04/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.6	1	20000	20000		07:30	0.6	1	20000	20000
	08:30	8.7	1	20000	20000		08:30	8.7	1	20000	20000
	09:30	16.1	1	20000	20000		09:30	16.1	1	20000	20000
	10:30	22.4	1	20000	20000		10:30	22.4	1	20000	20000
	11:30	27.1	1	20000	20000		11:30	27.1	1	20000	20000
	12:30	29.6	1	20000	20000		12:30	29.6	1	20000	20000
	13:30	29.7	1	20000	20000		13:30	29.7	1	20000	20000
	14:30	27.3	1	20000	20000		14:30	27.3	1	20000	20000
	15:30	22.7	1	20000	20000		15:30	22.7	1	20000	20000
	16:30	16.5	1	20000	20000		16:30	16.5	1	20000	20000
	17:30	9.1	1	20000	20000		17:30	9.1	1	20000	20000
	18:30	1	1	20000	20000		18:30	1	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 05/Oct	00:30	0	0	20000	0	Fri, 05/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.3	1	20000	20000		07:30	0.3	1	20000	20000
	08:30	8.4	1	20000	20000		08:30	8.4	1	20000	20000
	09:30	15.8	1	20000	20000		09:30	15.8	1	20000	20000
	10:30	22.1	1	20000	20000		10:30	22.1	1	20000	20000
	11:30	26.7	1	20000	20000		11:30	26.7	1	20000	20000
	12:30	29.2	1	20000	20000		12:30	29.2	1	20000	20000
	13:30	29.3	1	20000	20000		13:30	29.3	1	20000	20000
	14:30	26.9	1	20000	20000		14:30	26.9	1	20000	20000
	15:30	22.3	1	20000	20000		15:30	22.3	1	20000	20000
	16:30	16.1	1	20000	20000		16:30	16.1	1	20000	20000
	17:30	8.7	1	20000	20000		17:30	8.7	1	20000	20000
	18:30	0.6	1	20000	20000		18:30	0.6	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 06/Oct	00:30	0	0	20000	0	Sat, 06/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	8.1	1	20000	20000		08:30	8.1	1	20000	20000
	09:30	15.5	1	20000	20000		09:30	15.5	1	20000	20000
	10:30	21.8	1	20000	20000		10:30	21.8	1	20000	20000
	11:30	26.4	1	20000	20000		11:30	26.4	1	20000	20000
	12:30	28.8	1	20000	20000		12:30	28.8	1	20000	20000
	13:30	28.9	1	20000	20000		13:30	28.9	1	20000	20000
	14:30	26.5	1	20000	20000		14:30	26.5	1	20000	20000
	15:30	21.9	1	20000	20000		15:30	21.9	1	20000	20000
	16:30	15.7	1	20000	20000		16:30	15.7	1	20000	20000
	17:30	8.3	1	20000	20000		17:30	8.3	1	20000	20000
	18:30	0.2	1	20000	20000		18:30	0.2	1	20000	20000
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 07/Oct	00:30	0	0	20000	0	Sun, 07/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0

	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.8	1	20000	20000		08:30	7.8	1	20000	20000
	09:30	15.2	1	20000	20000		09:30	15.2	1	20000	20000
	10:30	21.4	1	20000	20000		10:30	21.4	1	20000	20000
	11:30	26	1	20000	20000		11:30	26	1	20000	20000
	12:30	28.5	1	20000	20000		12:30	28.5	1	20000	20000
	13:30	28.5	1	20000	20000		13:30	28.5	1	20000	20000
	14:30	26.1	1	20000	20000		14:30	26.1	1	20000	20000
	15:30	21.5	1	20000	20000		15:30	21.5	1	20000	20000
	16:30	15.3	1	20000	20000		16:30	15.3	1	20000	20000
	17:30	8	1	20000	20000		17:30	8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 08/Oct	00:30	0	0	20000	0	Mon, 08/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.5	1	20000	20000		08:30	7.5	1	20000	20000
	09:30	14.9	1	20000	20000		09:30	14.9	1	20000	20000
	10:30	21.1	1	20000	20000		10:30	21.1	1	20000	20000
	11:30	25.7	1	20000	20000		11:30	25.7	1	20000	20000
	12:30	28.1	1	20000	20000		12:30	28.1	1	20000	20000
	13:30	28.1	1	20000	20000		13:30	28.1	1	20000	20000
	14:30	25.7	1	20000	20000		14:30	25.7	1	20000	20000
	15:30	21.2	1	20000	20000		15:30	21.2	1	20000	20000
	16:30	15	1	20000	20000		16:30	15	1	20000	20000
	17:30	7.6	1	20000	20000		17:30	7.6	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 09/Oct	00:30	0	0	20000	0	Tue, 09/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7.2	1	20000	20000		08:30	7.2	1	20000	20000
	09:30	14.6	1	20000	20000		09:30	14.6	1	20000	20000
	10:30	20.8	1	20000	20000		10:30	20.8	1	20000	20000
	11:30	25.3	1	20000	20000		11:30	25.3	1	20000	20000
	12:30	27.7	1	20000	20000		12:30	27.7	1	20000	20000
	13:30	27.7	1	20000	20000		13:30	27.7	1	20000	20000
	14:30	25.3	1	20000	20000		14:30	25.3	1	20000	20000
	15:30	20.8	1	20000	20000		15:30	20.8	1	20000	20000
	16:30	14.6	1	20000	20000		16:30	14.6	1	20000	20000
	17:30	7.2	1	20000	20000		17:30	7.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 10/Oct	00:30	0	0	20000	0	Wed, 10/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.9	1	20000	20000		08:30	6.9	1	20000	20000
	09:30	14.3	1	20000	20000		09:30	14.3	1	20000	20000
	10:30	20.4	1	20000	20000		10:30	20.4	1	20000	20000
	11:30	24.9	1	20000	20000		11:30	24.9	1	20000	20000
	12:30	27.3	1	20000	20000		12:30	27.3	1	20000	20000
	13:30	27.3	1	20000	20000		13:30	27.3	1	20000	20000
	14:30	24.9	1	20000	20000		14:30	24.9	1	20000	20000
	15:30	20.4	1	20000	20000		15:30	20.4	1	20000	20000
	16:30	14.2	1	20000	20000		16:30	14.2	1	20000	20000
	17:30	6.9	1	20000	20000		17:30	6.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 11/Oct	00:30	0	0	20000	0	Thu, 11/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.7	1	20000	20000		08:30	6.7	1	20000	20000
	09:30	14	1	20000	20000		09:30	14	1	20000	20000
	10:30	20.1	1	20000	20000		10:30	20.1	1	20000	20000
	11:30	24.6	1	20000	20000		11:30	24.6	1	20000	20000
	12:30	27	1	20000	20000		12:30	27	1	20000	20000
	13:30	26.9	1	20000	20000		13:30	26.9	1	20000	20000
	14:30	24.5	1	20000	20000		14:30	24.5	1	20000	20000
	15:30	20	1	20000	20000		15:30	20	1	20000	20000
	16:30	13.9	1	20000	20000		16:30	13.9	1	20000	20000
	17:30	6.5	1	20000	20000		17:30	6.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 12/Oct	00:30	0	0	20000	0	Fri, 12/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.4	1	20000	20000		08:30	6.4	1	20000	20000
	09:30	13.7	1	20000	20000		09:30	13.7	1	20000	20000
	10:30	19.8	1	20000	20000		10:30	19.8	1	20000	20000
	11:30	24.2	1	20000	20000		11:30	24.2	1	20000	20000
	12:30	26.6	1	20000	20000		12:30	26.6	1	20000	20000
	13:30	26.6	1	20000	20000		13:30	26.6	1	20000	20000
	14:30	24.1	1	20000	20000		14:30	24.1	1	20000	20000
	15:30	19.6	1	20000	20000		15:30	19.6	1	20000	20000
	16:30	13.5	1	20000	20000		16:30	13.5	1	20000	20000
	17:30	6.2	1	20000	20000		17:30	6.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0

	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 13/Oct	00:30	0	0	20000	0	Sat, 13/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.1	1	20000	20000		08:30	6.1	1	20000	20000
	09:30	13.4	1	20000	20000		09:30	13.4	1	20000	20000
	10:30	19.5	1	20000	20000		10:30	19.5	1	20000	20000
	11:30	23.9	1	20000	20000		11:30	23.9	1	20000	20000
	12:30	26.2	1	20000	20000		12:30	26.2	1	20000	20000
	13:30	26.2	1	20000	20000		13:30	26.2	1	20000	20000
	14:30	23.8	1	20000	20000		14:30	23.8	1	20000	20000
	15:30	19.3	1	20000	20000		15:30	19.3	1	20000	20000
	16:30	13.1	1	20000	20000		16:30	13.1	1	20000	20000
	17:30	5.8	1	20000	20000		17:30	5.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 14/Oct	00:30	0	0	20000	0	Sun, 14/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
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	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.8	1	20000	20000		08:30	5.8	1	20000	20000
	09:30	13	1	20000	20000		09:30	13	1	20000	20000
	10:30	19.1	1	20000	20000		10:30	19.1	1	20000	20000
	11:30	23.5	1	20000	20000		11:30	23.5	1	20000	20000
	12:30	25.8	1	20000	20000		12:30	25.8	1	20000	20000
	13:30	25.8	1	20000	20000		13:30	25.8	1	20000	20000
	14:30	23.4	1	20000	20000		14:30	23.4	1	20000	20000
	15:30	18.9	1	20000	20000		15:30	18.9	1	20000	20000
	16:30	12.8	1	20000	20000		16:30	12.8	1	20000	20000
	17:30	5.5	1	20000	20000		17:30	5.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 15/Oct	00:30	0	0	20000	0	Mon, 15/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.5	1	20000	20000		08:30	5.5	1	20000	20000
	09:30	12.7	1	20000	20000		09:30	12.7	1	20000	20000
	10:30	18.8	1	20000	20000		10:30	18.8	1	20000	20000
	11:30	23.2	1	20000	20000		11:30	23.2	1	20000	20000
	12:30	25.5	1	20000	20000		12:30	25.5	1	20000	20000
	13:30	25.4	1	20000	20000		13:30	25.4	1	20000	20000
	14:30	23	1	20000	20000		14:30	23	1	20000	20000
	15:30	18.5	1	20000	20000		15:30	18.5	1	20000	20000
	16:30	12.4	1	20000	20000		16:30	12.4	1	20000	20000
	17:30	5.1	1	20000	20000		17:30	5.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 16/Oct	00:30	0	0	20000	0	Tue, 16/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.2	1	20000	20000		08:30	5.2	1	20000	20000
	09:30	12.4	1	20000	20000		09:30	12.4	1	20000	20000
	10:30	18.5	1	20000	20000		10:30	18.5	1	20000	20000
	11:30	22.8	1	20000	20000		11:30	22.8	1	20000	20000
	12:30	25.1	1	20000	20000		12:30	25.1	1	20000	20000
	13:30	25	1	20000	20000		13:30	25	1	20000	20000
	14:30	22.6	1	20000	20000		14:30	22.6	1	20000	20000
	15:30	18.2	1	20000	20000		15:30	18.2	1	20000	20000
	16:30	12.1	1	20000	20000		16:30	12.1	1	20000	20000
	17:30	4.8	1	20000	20000		17:30	4.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 17/Oct	00:30	0	0	20000	0	Wed, 17/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.9	1	20000	20000		08:30	4.9	1	20000	20000
	09:30	12.1	1	20000	20000		09:30	12.1	1	20000	20000
	10:30	18.1	1	20000	20000		10:30	18.1	1	20000	20000
	11:30	22.5	1	20000	20000		11:30	22.5	1	20000	20000
	12:30	24.7	1	20000	20000		12:30	24.7	1	20000	20000
	13:30	24.7	1	20000	20000		13:30	24.7	1	20000	20000
	14:30	22.3	1	20000	20000		14:30	22.3	1	20000	20000
	15:30	17.8	1	20000	20000		15:30	17.8	1	20000	20000
	16:30	11.7	1	20000	20000		16:30	11.7	1	20000	20000
	17:30	4.4	1	20000	20000		17:30	4.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 18/Oct	00:30	0	0	20000	0	Thu, 18/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.6	1	20000	20000		08:30	4.6	1	20000	20000
	09:30	11.8	1	20000	20000		09:30	11.8	1	20000	20000
	10:30	17.8	1	20000	20000		10:30	17.8	1	20000	20000
	11:30	22.1	1	20000	20000		11:30	22.1	1	20000	20000
	12:30	24.4	1	20000	20000		12:30	24.4	1	20000	20000
	13:30	24.3	1	20000	20000		13:30	24.3	1	20000	20000
	14:30	21.9	1	20000	20000		14:30	21.9	1	20000	20000
	15:30	17.5	1	20000	20000		15:30	17.5	1	20000	20000

	16:30	11.4	1	20000	20000		16:30	11.4	1	20000	20000
	17:30	4.1	1	20000	20000		17:30	4.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 19/Oct	00:30	0	0	20000	0	Fri, 19/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.3	1	20000	20000		08:30	4.3	1	20000	20000
	09:30	11.5	1	20000	20000		09:30	11.5	1	20000	20000
	10:30	17.5	1	20000	20000		10:30	17.5	1	20000	20000
	11:30	21.8	1	20000	20000		11:30	21.8	1	20000	20000
	12:30	24	1	20000	20000		12:30	24	1	20000	20000
	13:30	23.9	1	20000	20000		13:30	23.9	1	20000	20000
	14:30	21.5	1	20000	20000		14:30	21.5	1	20000	20000
	15:30	17.1	1	20000	20000		15:30	17.1	1	20000	20000
	16:30	11	1	20000	20000		16:30	11	1	20000	20000
	17:30	3.8	1	20000	20000		17:30	3.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 20/Oct	00:30	0	0	20000	0	Sat, 20/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4	1	20000	20000		08:30	4	1	20000	20000
	09:30	11.2	1	20000	20000		09:30	11.2	1	20000	20000
	10:30	17.2	1	20000	20000		10:30	17.2	1	20000	20000
	11:30	21.4	1	20000	20000		11:30	21.4	1	20000	20000
	12:30	23.7	1	20000	20000		12:30	23.7	1	20000	20000
	13:30	23.6	1	20000	20000		13:30	23.6	1	20000	20000
	14:30	21.2	1	20000	20000		14:30	21.2	1	20000	20000
	15:30	16.7	1	20000	20000		15:30	16.7	1	20000	20000
	16:30	10.7	1	20000	20000		16:30	10.7	1	20000	20000
	17:30	3.4	1	20000	20000		17:30	3.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 21/Oct	00:30	0	0	20000	0	Sun, 21/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.7	1	20000	20000		08:30	3.7	1	20000	20000
	09:30	10.9	1	20000	20000		09:30	10.9	1	20000	20000
	10:30	16.8	1	20000	20000		10:30	16.8	1	20000	20000
	11:30	21.1	1	20000	20000		11:30	21.1	1	20000	20000
	12:30	23.3	1	20000	20000		12:30	23.3	1	20000	20000
	13:30	23.2	1	20000	20000		13:30	23.2	1	20000	20000
	14:30	20.8	1	20000	20000		14:30	20.8	1	20000	20000
	15:30	16.4	1	20000	20000		15:30	16.4	1	20000	20000
	16:30	10.3	1	20000	20000		16:30	10.3	1	20000	20000
	17:30	3.1	1	20000	20000		17:30	3.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 22/Oct	00:30	0	0	20000	0	Mon, 22/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.5	1	20000	20000		08:30	3.5	1	20000	20000
	09:30	10.6	1	20000	20000		09:30	10.6	1	20000	20000
	10:30	16.5	1	20000	20000		10:30	16.5	1	20000	20000
	11:30	20.8	1	20000	20000		11:30	20.8	1	20000	20000
	12:30	23	1	20000	20000		12:30	23	1	20000	20000
	13:30	22.9	1	20000	20000		13:30	22.9	1	20000	20000
	14:30	20.5	1	20000	20000		14:30	20.5	1	20000	20000
	15:30	16.1	1	20000	20000		15:30	16.1	1	20000	20000
	16:30	10	1	20000	20000		16:30	10	1	20000	20000
	17:30	2.8	1	20000	20000		17:30	2.8	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 23/Oct	00:30	0	0	20000	0	Tue, 23/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.2	1	20000	20000		08:30	3.2	1	20000	20000
	09:30	10.3	1	20000	20000		09:30	10.3	1	20000	20000
	10:30	16.2	1	20000	20000		10:30	16.2	1	20000	20000
	11:30	20.4	1	20000	20000		11:30	20.4	1	20000	20000
	12:30	22.6	1	20000	20000		12:30	22.6	1	20000	20000
	13:30	22.5	1	20000	20000		13:30	22.5	1	20000	20000
	14:30	20.1	1	20000	20000		14:30	20.1	1	20000	20000
	15:30	15.7	1	20000	20000		15:30	15.7	1	20000	20000
	16:30	9.7	1	20000	20000		16:30	9.7	1	20000	20000
	17:30	2.5	1	20000	20000		17:30	2.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 24/Oct	00:30	0	0	20000	0	Wed, 24/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.9	1	20000	20000		08:30	2.9	1	20000	20000

	09:30	10	1	20000	20000		09:30	10	1	20000	20000
	10:30	15.9	1	20000	20000		10:30	15.9	1	20000	20000
	11:30	20.1	1	20000	20000		11:30	20.1	1	20000	20000
	12:30	22.3	1	20000	20000		12:30	22.3	1	20000	20000
	13:30	22.1	1	20000	20000		13:30	22.1	1	20000	20000
	14:30	19.8	1	20000	20000		14:30	19.8	1	20000	20000
	15:30	15.4	1	20000	20000		15:30	15.4	1	20000	20000
	16:30	9.4	1	20000	20000		16:30	9.4	1	20000	20000
	17:30	2.2	1	20000	20000		17:30	2.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 25/Oct	00:30	0	0	20000	0	Thu, 25/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.6	1	20000	20000		08:30	2.6	1	20000	20000
	09:30	9.7	1	20000	20000		09:30	9.7	1	20000	20000
	10:30	15.5	1	20000	20000		10:30	15.5	1	20000	20000
	11:30	19.7	1	20000	20000		11:30	19.7	1	20000	20000
	12:30	21.9	1	20000	20000		12:30	21.9	1	20000	20000
	13:30	21.8	1	20000	20000		13:30	21.8	1	20000	20000
	14:30	19.4	1	20000	20000		14:30	19.4	1	20000	20000
	15:30	15	1	20000	20000		15:30	15	1	20000	20000
	16:30	9	1	20000	20000		16:30	9	1	20000	20000
	17:30	1.9	1	20000	20000		17:30	1.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 26/Oct	00:30	0	0	20000	0	Fri, 26/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.3	1	20000	20000		08:30	2.3	1	20000	20000
	09:30	9.4	1	20000	20000		09:30	9.4	1	20000	20000
	10:30	15.2	1	20000	20000		10:30	15.2	1	20000	20000
	11:30	19.4	1	20000	20000		11:30	19.4	1	20000	20000
	12:30	21.6	1	20000	20000		12:30	21.6	1	20000	20000
	13:30	21.4	1	20000	20000		13:30	21.4	1	20000	20000
	14:30	19.1	1	20000	20000		14:30	19.1	1	20000	20000
	15:30	14.7	1	20000	20000		15:30	14.7	1	20000	20000
	16:30	8.7	1	20000	20000		16:30	8.7	1	20000	20000
	17:30	1.5	1	20000	20000		17:30	1.5	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 27/Oct	00:30	0	0	20000	0	Sat, 27/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2	1	20000	20000		08:30	2	1	20000	20000
	09:30	9.1	1	20000	20000		09:30	9.1	1	20000	20000
	10:30	14.9	1	20000	20000		10:30	14.9	1	20000	20000
	11:30	19.1	1	20000	20000		11:30	19.1	1	20000	20000
	12:30	21.2	1	20000	20000		12:30	21.2	1	20000	20000
	13:30	21.1	1	20000	20000		13:30	21.1	1	20000	20000
	14:30	18.7	1	20000	20000		14:30	18.7	1	20000	20000
	15:30	14.4	1	20000	20000		15:30	14.4	1	20000	20000
	16:30	8.4	1	20000	20000		16:30	8.4	1	20000	20000
	17:30	1.2	1	20000	20000		17:30	1.2	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 28/Oct	00:30	0	0	20000	0	Sun, 28/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.7	1	20000	20000		08:30	1.7	1	20000	20000
	09:30	8.8	1	20000	20000		09:30	8.8	1	20000	20000
	10:30	14.6	1	20000	20000		10:30	14.6	1	20000	20000
	11:30	18.8	1	20000	20000		11:30	18.8	1	20000	20000
	12:30	20.9	1	20000	20000		12:30	20.9	1	20000	20000
	13:30	20.8	1	20000	20000		13:30	20.8	1	20000	20000
	14:30	18.4	1	20000	20000		14:30	18.4	1	20000	20000
	15:30	14.1	1	20000	20000		15:30	14.1	1	20000	20000
	16:30	8.1	1	20000	20000		16:30	8.1	1	20000	20000
	17:30	0.9	1	20000	20000		17:30	0.9	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 29/Oct	00:30	0	0	20000	0	Mon, 29/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.4	1	20000	20000		08:30	1.4	1	20000	20000
	09:30	8.5	1	20000	20000		09:30	8.5	1	20000	20000
	10:30	14.3	1	20000	20000		10:30	14.3	1	20000	20000
	11:30	18.4	1	20000	20000		11:30	18.4	1	20000	20000
	12:30	20.5	1	20000	20000		12:30	20.5	1	20000	20000
	13:30	20.4	1	20000	20000		13:30	20.4	1	20000	20000
	14:30	18.1	1	20000	20000		14:30	18.1	1	20000	20000
	15:30	13.7	1	20000	20000		15:30	13.7	1	20000	20000
	16:30	7.8	1	20000	20000		16:30	7.8	1	20000	20000
	17:30	0.7	1	20000	20000		17:30	0.7	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 30/Oct	00:30	0	0	20000	0	Tue, 30/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0

	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.2	1	20000	20000		08:30	1.2	1	20000	20000
	09:30	8.2	1	20000	20000		09:30	8.2	1	20000	20000
	10:30	14	1	20000	20000		10:30	14	1	20000	20000
	11:30	18.1	1	20000	20000		11:30	18.1	1	20000	20000
	12:30	20.2	1	20000	20000		12:30	20.2	1	20000	20000
	13:30	20.1	1	20000	20000		13:30	20.1	1	20000	20000
	14:30	17.8	1	20000	20000		14:30	17.8	1	20000	20000
	15:30	13.4	1	20000	20000		15:30	13.4	1	20000	20000
	16:30	7.5	1	20000	20000		16:30	7.5	1	20000	20000
	17:30	0.4	1	20000	20000		17:30	0.4	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 31/Oct	00:30	0	0	20000	0	Wed, 31/Oct	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.9	1	20000	20000		08:30	0.9	1	20000	20000
	09:30	7.9	1	20000	20000		09:30	7.9	1	20000	20000
	10:30	13.7	1	20000	20000		10:30	13.7	1	20000	20000
	11:30	17.8	1	20000	20000		11:30	17.8	1	20000	20000
	12:30	19.9	1	20000	20000		12:30	19.9	1	20000	20000
	13:30	19.8	1	20000	20000		13:30	19.8	1	20000	20000
	14:30	17.4	1	20000	20000		14:30	17.4	1	20000	20000
	15:30	13.1	1	20000	20000		15:30	13.1	1	20000	20000
	16:30	7.2	1	20000	20000		16:30	7.2	1	20000	20000
	17:30	0.1	1	20000	20000		17:30	0.1	1	20000	20000
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 01/Nov	00:30	0	0	20000	0	Thu, 01/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.6	1	20000	20000		07:30	0.6	1	20000	20000
	08:30	7.6	1	20000	20000		08:30	7.6	1	20000	20000
	09:30	13.4	1	20000	20000		09:30	13.4	1	20000	20000
	10:30	17.5	1	20000	20000		10:30	17.5	1	20000	20000
	11:30	19.6	1	20000	20000		11:30	19.6	1	20000	20000
	12:30	19.4	1	20000	20000		12:30	19.4	1	20000	20000
	13:30	17.1	1	20000	20000		13:30	17.1	1	20000	20000
	14:30	12.8	1	20000	20000		14:30	12.8	1	20000	20000
	15:30	6.9	1	20000	20000		15:30	6.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 02/Nov	00:30	0	0	20000	0	Fri, 02/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0.3	1	20000	20000		07:30	0.3	1	20000	20000
	08:30	7.3	1	20000	20000		08:30	7.3	1	20000	20000
	09:30	13	1	20000	20000		09:30	13	1	20000	20000
	10:30	17.1	1	20000	20000		10:30	17.1	1	20000	20000
	11:30	19.2	1	20000	20000		11:30	19.2	1	20000	20000
	12:30	19.1	1	20000	20000		12:30	19.1	1	20000	20000
	13:30	16.8	1	20000	20000		13:30	16.8	1	20000	20000
	14:30	12.5	1	20000	20000		14:30	12.5	1	20000	20000
	15:30	6.6	1	20000	20000		15:30	6.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 03/Nov	00:30	0	0	20000	0	Sat, 03/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	7	1	20000	20000		08:30	7	1	20000	20000
	09:30	12.7	1	20000	20000		09:30	12.7	1	20000	20000
	10:30	16.8	1	20000	20000		10:30	16.8	1	20000	20000
	11:30	18.9	1	20000	20000		11:30	18.9	1	20000	20000
	12:30	18.8	1	20000	20000		12:30	18.8	1	20000	20000
	13:30	16.5	1	20000	20000		13:30	16.5	1	20000	20000
	14:30	12.2	1	20000	20000		14:30	12.2	1	20000	20000
	15:30	6.3	1	20000	20000		15:30	6.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 04/Nov	00:30	0	0	20000	0	Sun, 04/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.7	1	20000	20000		08:30	6.7	1	20000	20000
	09:30	12.5	1	20000	20000		09:30	12.5	1	20000	20000
	10:30	16.5	1	20000	20000		10:30	16.5	1	20000	20000
	11:30	18.6	1	20000	20000		11:30	18.6	1	20000	20000
	12:30	18.5	1	20000	20000		12:30	18.5	1	20000	20000
	13:30	16.2	1	20000	20000		13:30	16.2	1	20000	20000
	14:30	11.9	1	20000	20000		14:30	11.9	1	20000	20000
	15:30	6.1	1	20000	20000		15:30	6.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0

	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 05/Nov	00:30	0	0	20000	0	Mon, 05/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.4	1	20000	20000		08:30	6.4	1	20000	20000
	09:30	12.2	1	20000	20000		09:30	12.2	1	20000	20000
	10:30	16.2	1	20000	20000		10:30	16.2	1	20000	20000
	11:30	18.3	1	20000	20000		11:30	18.3	1	20000	20000
	12:30	18.2	1	20000	20000		12:30	18.2	1	20000	20000
	13:30	15.9	1	20000	20000		13:30	15.9	1	20000	20000
	14:30	11.6	1	20000	20000		14:30	11.6	1	20000	20000
	15:30	5.8	1	20000	20000		15:30	5.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 06/Nov	00:30	0	0	20000	0	Tue, 06/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	6.2	1	20000	20000		08:30	6.2	1	20000	20000
	09:30	11.9	1	20000	20000		09:30	11.9	1	20000	20000
	10:30	15.9	1	20000	20000		10:30	15.9	1	20000	20000
	11:30	18	1	20000	20000		11:30	18	1	20000	20000
	12:30	17.9	1	20000	20000		12:30	17.9	1	20000	20000
	13:30	15.6	1	20000	20000		13:30	15.6	1	20000	20000
	14:30	11.4	1	20000	20000		14:30	11.4	1	20000	20000
	15:30	5.5	1	20000	20000		15:30	5.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 07/Nov	00:30	0	0	20000	0	Wed, 07/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.9	1	20000	20000		08:30	5.9	1	20000	20000
	09:30	11.6	1	20000	20000		09:30	11.6	1	20000	20000
	10:30	15.6	1	20000	20000		10:30	15.6	1	20000	20000
	11:30	17.7	1	20000	20000		11:30	17.7	1	20000	20000
	12:30	17.6	1	20000	20000		12:30	17.6	1	20000	20000
	13:30	15.3	1	20000	20000		13:30	15.3	1	20000	20000
	14:30	11.1	1	20000	20000		14:30	11.1	1	20000	20000
	15:30	5.3	1	20000	20000		15:30	5.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 08/Nov	00:30	0	0	20000	0	Thu, 08/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.6	1	20000	20000		08:30	5.6	1	20000	20000
	09:30	11.3	1	20000	20000		09:30	11.3	1	20000	20000
	10:30	15.3	1	20000	20000		10:30	15.3	1	20000	20000
	11:30	17.4	1	20000	20000		11:30	17.4	1	20000	20000
	12:30	17.3	1	20000	20000		12:30	17.3	1	20000	20000
	13:30	15	1	20000	20000		13:30	15	1	20000	20000
	14:30	10.8	1	20000	20000		14:30	10.8	1	20000	20000
	15:30	5	1	20000	20000		15:30	5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 09/Nov	00:30	0	0	20000	0	Fri, 09/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.3	1	20000	20000		08:30	5.3	1	20000	20000
	09:30	11	1	20000	20000		09:30	11	1	20000	20000
	10:30	15	1	20000	20000		10:30	15	1	20000	20000
	11:30	17.1	1	20000	20000		11:30	17.1	1	20000	20000
	12:30	17	1	20000	20000		12:30	17	1	20000	20000
	13:30	14.8	1	20000	20000		13:30	14.8	1	20000	20000
	14:30	10.6	1	20000	20000		14:30	10.6	1	20000	20000
	15:30	4.8	1	20000	20000		15:30	4.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 10/Nov	00:30	0	0	20000	0	Sat, 10/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	5.1	1	20000	20000		08:30	5.1	1	20000	20000
	09:30	10.7	1	20000	20000		09:30	10.7	1	20000	20000
	10:30	14.7	1	20000	20000		10:30	14.7	1	20000	20000
	11:30	16.8	1	20000	20000		11:30	16.8	1	20000	20000

	12:30	16.7	1	20000	20000		12:30	16.7	1	20000	20000
	13:30	14.5	1	20000	20000		13:30	14.5	1	20000	20000
	14:30	10.3	1	20000	20000		14:30	10.3	1	20000	20000
	15:30	4.5	1	20000	20000		15:30	4.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 11/Nov	00:30	0	0	20000	0	Sun, 11/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.8	1	20000	20000		08:30	4.8	1	20000	20000
	09:30	10.4	1	20000	20000		09:30	10.4	1	20000	20000
	10:30	14.5	1	20000	20000		10:30	14.5	1	20000	20000
	11:30	16.5	1	20000	20000		11:30	16.5	1	20000	20000
	12:30	16.4	1	20000	20000		12:30	16.4	1	20000	20000
	13:30	14.2	1	20000	20000		13:30	14.2	1	20000	20000
	14:30	10	1	20000	20000		14:30	10	1	20000	20000
	15:30	4.3	1	20000	20000		15:30	4.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 12/Nov	00:30	0	0	20000	0	Mon, 12/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.5	1	20000	20000		08:30	4.5	1	20000	20000
	09:30	10.2	1	20000	20000		09:30	10.2	1	20000	20000
	10:30	14.2	1	20000	20000		10:30	14.2	1	20000	20000
	11:30	16.3	1	20000	20000		11:30	16.3	1	20000	20000
	12:30	16.2	1	20000	20000		12:30	16.2	1	20000	20000
	13:30	13.9	1	20000	20000		13:30	13.9	1	20000	20000
	14:30	9.8	1	20000	20000		14:30	9.8	1	20000	20000
	15:30	4.1	1	20000	20000		15:30	4.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 13/Nov	00:30	0	0	20000	0	Tue, 13/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4.3	1	20000	20000		08:30	4.3	1	20000	20000
	09:30	9.9	1	20000	20000		09:30	9.9	1	20000	20000
	10:30	13.9	1	20000	20000		10:30	13.9	1	20000	20000
	11:30	16	1	20000	20000		11:30	16	1	20000	20000
	12:30	15.9	1	20000	20000		12:30	15.9	1	20000	20000
	13:30	13.7	1	20000	20000		13:30	13.7	1	20000	20000
	14:30	9.6	1	20000	20000		14:30	9.6	1	20000	20000
	15:30	3.8	1	20000	20000		15:30	3.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 14/Nov	00:30	0	0	20000	0	Wed, 14/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	4	1	20000	20000		08:30	4	1	20000	20000
	09:30	9.6	1	20000	20000		09:30	9.6	1	20000	20000
	10:30	13.6	1	20000	20000		10:30	13.6	1	20000	20000
	11:30	15.7	1	20000	20000		11:30	15.7	1	20000	20000
	12:30	15.6	1	20000	20000		12:30	15.6	1	20000	20000
	13:30	13.4	1	20000	20000		13:30	13.4	1	20000	20000
	14:30	9.3	1	20000	20000		14:30	9.3	1	20000	20000
	15:30	3.6	1	20000	20000		15:30	3.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 15/Nov	00:30	0	0	20000	0	Thu, 15/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.8	1	20000	20000		08:30	3.8	1	20000	20000
	09:30	9.4	1	20000	20000		09:30	9.4	1	20000	20000
	10:30	13.4	1	20000	20000		10:30	13.4	1	20000	20000
	11:30	15.4	1	20000	20000		11:30	15.4	1	20000	20000
	12:30	15.4	1	20000	20000		12:30	15.4	1	20000	20000
	13:30	13.2	1	20000	20000		13:30	13.2	1	20000	20000
	14:30	9.1	1	20000	20000		14:30	9.1	1	20000	20000
	15:30	3.4	1	20000	20000		15:30	3.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 16/Nov	00:30	0	0	20000	0	Fri, 16/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0

	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.5	1	20000	20000		08:30	3.5	1	20000	20000
	09:30	9.1	1	20000	20000		09:30	9.1	1	20000	20000
	10:30	13.1	1	20000	20000		10:30	13.1	1	20000	20000
	11:30	15.2	1	20000	20000		11:30	15.2	1	20000	20000
	12:30	15.1	1	20000	20000		12:30	15.1	1	20000	20000
	13:30	13	1	20000	20000		13:30	13	1	20000	20000
	14:30	8.9	1	20000	20000		14:30	8.9	1	20000	20000
	15:30	3.2	1	20000	20000		15:30	3.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 17/Nov	00:30	0	0	20000	0	Sat, 17/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3.3	1	20000	20000		08:30	3.3	1	20000	20000
	09:30	8.9	1	20000	20000		09:30	8.9	1	20000	20000
	10:30	12.9	1	20000	20000		10:30	12.9	1	20000	20000
	11:30	14.9	1	20000	20000		11:30	14.9	1	20000	20000
	12:30	14.9	1	20000	20000		12:30	14.9	1	20000	20000
	13:30	12.7	1	20000	20000		13:30	12.7	1	20000	20000
	14:30	8.7	1	20000	20000		14:30	8.7	1	20000	20000
	15:30	3	1	20000	20000		15:30	3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 18/Nov	00:30	0	0	20000	0	Sun, 18/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	3	1	20000	20000		08:30	3	1	20000	20000
	09:30	8.6	1	20000	20000		09:30	8.6	1	20000	20000
	10:30	12.6	1	20000	20000		10:30	12.6	1	20000	20000
	11:30	14.7	1	20000	20000		11:30	14.7	1	20000	20000
	12:30	14.6	1	20000	20000		12:30	14.6	1	20000	20000
	13:30	12.5	1	20000	20000		13:30	12.5	1	20000	20000
	14:30	8.4	1	20000	20000		14:30	8.4	1	20000	20000
	15:30	2.8	1	20000	20000		15:30	2.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 19/Nov	00:30	0	0	20000	0	Mon, 19/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.8	1	20000	20000		08:30	2.8	1	20000	20000
	09:30	8.4	1	20000	20000		09:30	8.4	1	20000	20000
	10:30	12.4	1	20000	20000		10:30	12.4	1	20000	20000
	11:30	14.4	1	20000	20000		11:30	14.4	1	20000	20000
	12:30	14.4	1	20000	20000		12:30	14.4	1	20000	20000
	13:30	12.3	1	20000	20000		13:30	12.3	1	20000	20000
	14:30	8.2	1	20000	20000		14:30	8.2	1	20000	20000
	15:30	2.6	1	20000	20000		15:30	2.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 20/Nov	00:30	0	0	20000	0	Tue, 20/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.5	1	20000	20000		08:30	2.5	1	20000	20000
	09:30	8.1	1	20000	20000		09:30	8.1	1	20000	20000
	10:30	12.1	1	20000	20000		10:30	12.1	1	20000	20000
	11:30	14.2	1	20000	20000		11:30	14.2	1	20000	20000
	12:30	14.2	1	20000	20000		12:30	14.2	1	20000	20000
	13:30	12.1	1	20000	20000		13:30	12.1	1	20000	20000
	14:30	8	1	20000	20000		14:30	8	1	20000	20000
	15:30	2.4	1	20000	20000		15:30	2.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 21/Nov	00:30	0	0	20000	0	Wed, 21/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.3	1	20000	20000		08:30	2.3	1	20000	20000
	09:30	7.9	1	20000	20000		09:30	7.9	1	20000	20000
	10:30	11.9	1	20000	20000		10:30	11.9	1	20000	20000
	11:30	14	1	20000	20000		11:30	14	1	20000	20000
	12:30	14	1	20000	20000		12:30	14	1	20000	20000
	13:30	11.9	1	20000	20000		13:30	11.9	1	20000	20000
	14:30	7.8	1	20000	20000		14:30	7.8	1	20000	20000
	15:30	2.2	1	20000	20000		15:30	2.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0

	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 22/Nov	00:30	0	0	20000	0	Thu, 22/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	2.1	1	20000	20000		08:30	2.1	1	20000	20000
	09:30	7.7	1	20000	20000		09:30	7.7	1	20000	20000
	10:30	11.7	1	20000	20000		10:30	11.7	1	20000	20000
	11:30	13.7	1	20000	20000		11:30	13.7	1	20000	20000
	12:30	13.7	1	20000	20000		12:30	13.7	1	20000	20000
	13:30	11.7	1	20000	20000		13:30	11.7	1	20000	20000
	14:30	7.7	1	20000	20000		14:30	7.7	1	20000	20000
	15:30	2.1	1	20000	20000		15:30	2.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 23/Nov	00:30	0	0	20000	0	Fri, 23/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.9	1	20000	20000		08:30	1.9	1	20000	20000
	09:30	7.4	1	20000	20000		09:30	7.4	1	20000	20000
	10:30	11.4	1	20000	20000		10:30	11.4	1	20000	20000
	11:30	13.5	1	20000	20000		11:30	13.5	1	20000	20000
	12:30	13.5	1	20000	20000		12:30	13.5	1	20000	20000
	13:30	11.5	1	20000	20000		13:30	11.5	1	20000	20000
	14:30	7.5	1	20000	20000		14:30	7.5	1	20000	20000
	15:30	1.9	1	20000	20000		15:30	1.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 24/Nov	00:30	0	0	20000	0	Sat, 24/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.6	1	20000	20000		08:30	1.6	1	20000	20000
	09:30	7.2	1	20000	20000		09:30	7.2	1	20000	20000
	10:30	11.2	1	20000	20000		10:30	11.2	1	20000	20000
	11:30	13.3	1	20000	20000		11:30	13.3	1	20000	20000
	12:30	13.3	1	20000	20000		12:30	13.3	1	20000	20000
	13:30	11.3	1	20000	20000		13:30	11.3	1	20000	20000
	14:30	7.3	1	20000	20000		14:30	7.3	1	20000	20000
	15:30	1.8	1	20000	20000		15:30	1.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 25/Nov	00:30	0	0	20000	0	Sun, 25/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.4	1	20000	20000		08:30	1.4	1	20000	20000
	09:30	7	1	20000	20000		09:30	7	1	20000	20000
	10:30	11	1	20000	20000		10:30	11	1	20000	20000
	11:30	13.1	1	20000	20000		11:30	13.1	1	20000	20000
	12:30	13.1	1	20000	20000		12:30	13.1	1	20000	20000
	13:30	11.1	1	20000	20000		13:30	11.1	1	20000	20000
	14:30	7.1	1	20000	20000		14:30	7.1	1	20000	20000
	15:30	1.6	1	20000	20000		15:30	1.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 26/Nov	00:30	0	0	20000	0	Mon, 26/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1.2	1	20000	20000		08:30	1.2	1	20000	20000
	09:30	6.8	1	20000	20000		09:30	6.8	1	20000	20000
	10:30	10.8	1	20000	20000		10:30	10.8	1	20000	20000
	11:30	12.9	1	20000	20000		11:30	12.9	1	20000	20000
	12:30	12.9	1	20000	20000		12:30	12.9	1	20000	20000
	13:30	10.9	1	20000	20000		13:30	10.9	1	20000	20000
	14:30	7	1	20000	20000		14:30	7	1	20000	20000
	15:30	1.5	1	20000	20000		15:30	1.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 27/Nov	00:30	0	0	20000	0	Tue, 27/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	1	1	20000	20000		08:30	1	1	20000	20000
	09:30	6.6	1	20000	20000		09:30	6.6	1	20000	20000
	10:30	10.6	1	20000	20000		10:30	10.6	1	20000	20000
	11:30	12.7	1	20000	20000		11:30	12.7	1	20000	20000
	12:30	12.8	1	20000	20000		12:30	12.8	1	20000	20000
	13:30	10.7	1	20000	20000		13:30	10.7	1	20000	20000
	14:30	6.8	1	20000	20000		14:30	6.8	1	20000	20000

	15:30	1.3	1	20000	20000		15:30	1.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 28/Nov	00:30	0	0	20000	0	Wed, 28/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.8	1	20000	20000		08:30	0.8	1	20000	20000
	09:30	6.4	1	20000	20000		09:30	6.4	1	20000	20000
	10:30	10.4	1	20000	20000		10:30	10.4	1	20000	20000
	11:30	12.5	1	20000	20000		11:30	12.5	1	20000	20000
	12:30	12.6	1	20000	20000		12:30	12.6	1	20000	20000
	13:30	10.6	1	20000	20000		13:30	10.6	1	20000	20000
	14:30	6.7	1	20000	20000		14:30	6.7	1	20000	20000
	15:30	1.2	1	20000	20000		15:30	1.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 29/Nov	00:30	0	0	20000	0	Thu, 29/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.6	1	20000	20000		08:30	0.6	1	20000	20000
	09:30	6.2	1	20000	20000		09:30	6.2	1	20000	20000
	10:30	10.2	1	20000	20000		10:30	10.2	1	20000	20000
	11:30	12.3	1	20000	20000		11:30	12.3	1	20000	20000
	12:30	12.4	1	20000	20000		12:30	12.4	1	20000	20000
	13:30	10.4	1	20000	20000		13:30	10.4	1	20000	20000
	14:30	6.5	1	20000	20000		14:30	6.5	1	20000	20000
	15:30	1.1	1	20000	20000		15:30	1.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 30/Nov	00:30	0	0	20000	0	Fri, 30/Nov	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.4	1	20000	20000		08:30	0.4	1	20000	20000
	09:30	6	1	20000	20000		09:30	6	1	20000	20000
	10:30	10	1	20000	20000		10:30	10	1	20000	20000
	11:30	12.2	1	20000	20000		11:30	12.2	1	20000	20000
	12:30	12.2	1	20000	20000		12:30	12.2	1	20000	20000
	13:30	10.3	1	20000	20000		13:30	10.3	1	20000	20000
	14:30	6.4	1	20000	20000		14:30	6.4	1	20000	20000
	15:30	1	1	20000	20000		15:30	1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 01/Dec	00:30	0	0	20000	0	Sat, 01/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.2	1	20000	20000		08:30	0.2	1	20000	20000
	09:30	5.8	1	20000	20000		09:30	5.8	1	20000	20000
	10:30	9.8	1	20000	20000		10:30	9.8	1	20000	20000
	11:30	12	1	20000	20000		11:30	12	1	20000	20000
	12:30	12.1	1	20000	20000		12:30	12.1	1	20000	20000
	13:30	10.1	1	20000	20000		13:30	10.1	1	20000	20000
	14:30	6.3	1	20000	20000		14:30	6.3	1	20000	20000
	15:30	0.8	1	20000	20000		15:30	0.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 02/Dec	00:30	0	0	20000	0	Sun, 02/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0.1	1	20000	20000		08:30	0.1	1	20000	20000
	09:30	5.7	1	20000	20000		09:30	5.7	1	20000	20000
	10:30	9.7	1	20000	20000		10:30	9.7	1	20000	20000
	11:30	11.8	1	20000	20000		11:30	11.8	1	20000	20000
	12:30	11.9	1	20000	20000		12:30	11.9	1	20000	20000
	13:30	10	1	20000	20000		13:30	10	1	20000	20000
	14:30	6.2	1	20000	20000		14:30	6.2	1	20000	20000
	15:30	0.7	1	20000	20000		15:30	0.7	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 03/Dec	00:30	0	0	20000	0	Mon, 03/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0

	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.5	1	20000	20000		09:30	5.5	1	20000	20000
	10:30	9.5	1	20000	20000		10:30	9.5	1	20000	20000
	11:30	11.7	1	20000	20000		11:30	11.7	1	20000	20000
	12:30	11.8	1	20000	20000		12:30	11.8	1	20000	20000
	13:30	9.9	1	20000	20000		13:30	9.9	1	20000	20000
	14:30	6.1	1	20000	20000		14:30	6.1	1	20000	20000
	15:30	0.7	1	20000	20000		15:30	0.7	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 04/Dec	00:30	0	0	20000	0	Tue, 04/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.3	1	20000	20000		09:30	5.3	1	20000	20000
	10:30	9.3	1	20000	20000		10:30	9.3	1	20000	20000
	11:30	11.5	1	20000	20000		11:30	11.5	1	20000	20000
	12:30	11.7	1	20000	20000		12:30	11.7	1	20000	20000
	13:30	9.8	1	20000	20000		13:30	9.8	1	20000	20000
	14:30	6	1	20000	20000		14:30	6	1	20000	20000
	15:30	0.6	1	20000	20000		15:30	0.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 05/Dec	00:30	0	0	20000	0	Wed, 05/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5.2	1	20000	20000		09:30	5.2	1	20000	20000
	10:30	9.2	1	20000	20000		10:30	9.2	1	20000	20000
	11:30	11.4	1	20000	20000		11:30	11.4	1	20000	20000
	12:30	11.5	1	20000	20000		12:30	11.5	1	20000	20000
	13:30	9.6	1	20000	20000		13:30	9.6	1	20000	20000
	14:30	5.9	1	20000	20000		14:30	5.9	1	20000	20000
	15:30	0.5	1	20000	20000		15:30	0.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 06/Dec	00:30	0	0	20000	0	Thu, 06/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	5	1	20000	20000		09:30	5	1	20000	20000
	10:30	9	1	20000	20000		10:30	9	1	20000	20000
	11:30	11.2	1	20000	20000		11:30	11.2	1	20000	20000
	12:30	11.4	1	20000	20000		12:30	11.4	1	20000	20000
	13:30	9.5	1	20000	20000		13:30	9.5	1	20000	20000
	14:30	5.8	1	20000	20000		14:30	5.8	1	20000	20000
	15:30	0.4	1	20000	20000		15:30	0.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 07/Dec	00:30	0	0	20000	0	Fri, 07/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.9	1	20000	20000		09:30	4.9	1	20000	20000
	10:30	8.9	1	20000	20000		10:30	8.9	1	20000	20000
	11:30	11.1	1	20000	20000		11:30	11.1	1	20000	20000
	12:30	11.3	1	20000	20000		12:30	11.3	1	20000	20000
	13:30	9.4	1	20000	20000		13:30	9.4	1	20000	20000
	14:30	5.7	1	20000	20000		14:30	5.7	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 08/Dec	00:30	0	0	20000	0	Sat, 08/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.7	1	20000	20000		09:30	4.7	1	20000	20000
	10:30	8.8	1	20000	20000		10:30	8.8	1	20000	20000
	11:30	11	1	20000	20000		11:30	11	1	20000	20000
	12:30	11.2	1	20000	20000		12:30	11.2	1	20000	20000
	13:30	9.3	1	20000	20000		13:30	9.3	1	20000	20000
	14:30	5.6	1	20000	20000		14:30	5.6	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 09/Dec	00:30	0	0	20000	0	Sun, 09/Dec	00:30	0	0	20000	0

	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.6	1	20000	20000		09:30	4.6	1	20000	20000
	10:30	8.7	1	20000	20000		10:30	8.7	1	20000	20000
	11:30	10.9	1	20000	20000		11:30	10.9	1	20000	20000
	12:30	11.1	1	20000	20000		12:30	11.1	1	20000	20000
	13:30	9.3	1	20000	20000		13:30	9.3	1	20000	20000
	14:30	5.6	1	20000	20000		14:30	5.6	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 10/Dec	00:30	0	0	20000	0	Mon, 10/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.5	1	20000	20000		09:30	4.5	1	20000	20000
	10:30	8.5	1	20000	20000		10:30	8.5	1	20000	20000
	11:30	10.8	1	20000	20000		11:30	10.8	1	20000	20000
	12:30	11	1	20000	20000		12:30	11	1	20000	20000
	13:30	9.2	1	20000	20000		13:30	9.2	1	20000	20000
	14:30	5.5	1	20000	20000		14:30	5.5	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 11/Dec	00:30	0	0	20000	0	Tue, 11/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.3	1	20000	20000		09:30	4.3	1	20000	20000
	10:30	8.4	1	20000	20000		10:30	8.4	1	20000	20000
	11:30	10.7	1	20000	20000		11:30	10.7	1	20000	20000
	12:30	10.9	1	20000	20000		12:30	10.9	1	20000	20000
	13:30	9.1	1	20000	20000		13:30	9.1	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 12/Dec	00:30	0	0	20000	0	Wed, 12/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.2	1	20000	20000		09:30	4.2	1	20000	20000
	10:30	8.3	1	20000	20000		10:30	8.3	1	20000	20000
	11:30	10.6	1	20000	20000		11:30	10.6	1	20000	20000
	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
	13:30	9.1	1	20000	20000		13:30	9.1	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 13/Dec	00:30	0	0	20000	0	Thu, 13/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4.1	1	20000	20000		09:30	4.1	1	20000	20000
	10:30	8.2	1	20000	20000		10:30	8.2	1	20000	20000
	11:30	10.5	1	20000	20000		11:30	10.5	1	20000	20000
	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
	13:30	9	1	20000	20000		13:30	9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 14/Dec	00:30	0	0	20000	0	Fri, 14/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	4	1	20000	20000		09:30	4	1	20000	20000
	10:30	8.1	1	20000	20000		10:30	8.1	1	20000	20000
	11:30	10.4	1	20000	20000		11:30	10.4	1	20000	20000
	12:30	10.7	1	20000	20000		12:30	10.7	1	20000	20000
	13:30	9	1	20000	20000		13:30	9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0

	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 15/Dec	00:30	0	0	20000	0	Sat, 15/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.9	1	20000	20000		09:30	3.9	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.4	1	20000	20000		11:30	10.4	1	20000	20000
	12:30	10.7	1	20000	20000		12:30	10.7	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 16/Dec	00:30	0	0	20000	0	Sun, 16/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	8	1	20000	20000		10:30	8	1	20000	20000
	11:30	10.3	1	20000	20000		11:30	10.3	1	20000	20000
	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 17/Dec	00:30	0	0	20000	0	Mon, 17/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.8	1	20000	20000		09:30	3.8	1	20000	20000
	10:30	7.9	1	20000	20000		10:30	7.9	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 18/Dec	00:30	0	0	20000	0	Tue, 18/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.7	1	20000	20000		09:30	3.7	1	20000	20000
	10:30	7.8	1	20000	20000		10:30	7.8	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 19/Dec	00:30	0	0	20000	0	Wed, 19/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	7.8	1	20000	20000		10:30	7.8	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.8	1	20000	20000		13:30	8.8	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 20/Dec	00:30	0	0	20000	0	Thu, 20/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.6	1	20000	20000		09:30	3.6	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000

	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.8	1	20000	20000		13:30	8.8	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.1	1	20000	20000		15:30	0.1	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 21/Dec	00:30	0	0	20000	0	Fri, 21/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.5	1	20000	20000		09:30	3.5	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.3	1	20000	20000		14:30	5.3	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 22/Dec	00:30	0	0	20000	0	Sat, 22/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.5	1	20000	20000		09:30	3.5	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.2	1	20000	20000		15:30	0.2	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 23/Dec	00:30	0	0	20000	0	Sun, 23/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 24/Dec	00:30	0	0	20000	0	Mon, 24/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	8.9	1	20000	20000		13:30	8.9	1	20000	20000
	14:30	5.4	1	20000	20000		14:30	5.4	1	20000	20000
	15:30	0.3	1	20000	20000		15:30	0.3	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Tue, 25/Dec	00:30	0	0	20000	0	Tue, 25/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.5	1	20000	20000		12:30	10.5	1	20000	20000
	13:30	9	1	20000	20000		13:30	9	1	20000	20000
	14:30	5.5	1	20000	20000		14:30	5.5	1	20000	20000
	15:30	0.4	1	20000	20000		15:30	0.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Wed, 26/Dec	00:30	0	0	20000	0	Wed, 26/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0

	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	9	1	20000	20000		13:30	9	1	20000	20000
	14:30	5.5	1	20000	20000		14:30	5.5	1	20000	20000
	15:30	0.4	1	20000	20000		15:30	0.4	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Thu, 27/Dec	00:30	0	0	20000	0	Thu, 27/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	9.1	1	20000	20000		13:30	9.1	1	20000	20000
	14:30	5.6	1	20000	20000		14:30	5.6	1	20000	20000
	15:30	0.5	1	20000	20000		15:30	0.5	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Fri, 28/Dec	00:30	0	0	20000	0	Fri, 28/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.6	1	20000	20000		10:30	7.6	1	20000	20000
	11:30	10.1	1	20000	20000		11:30	10.1	1	20000	20000
	12:30	10.6	1	20000	20000		12:30	10.6	1	20000	20000
	13:30	9.1	1	20000	20000		13:30	9.1	1	20000	20000
	14:30	5.7	1	20000	20000		14:30	5.7	1	20000	20000
	15:30	0.6	1	20000	20000		15:30	0.6	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sat, 29/Dec	00:30	0	0	20000	0	Sat, 29/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.7	1	20000	20000		12:30	10.7	1	20000	20000
	13:30	9.2	1	20000	20000		13:30	9.2	1	20000	20000
	14:30	5.8	1	20000	20000		14:30	5.8	1	20000	20000
	15:30	0.7	1	20000	20000		15:30	0.7	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Sun, 30/Dec	00:30	0	0	20000	0	Sun, 30/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.2	1	20000	20000		11:30	10.2	1	20000	20000
	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
	13:30	9.3	1	20000	20000		13:30	9.3	1	20000	20000
	14:30	5.9	1	20000	20000		14:30	5.9	1	20000	20000
	15:30	0.8	1	20000	20000		15:30	0.8	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0
	21:30	0	0	20000	0		21:30	0	0	20000	0
	22:30	0	0	20000	0		22:30	0	0	20000	0
	23:30	0	0	20000	0		23:30	0	0	20000	0
Mon, 31/Dec	00:30	0	0	20000	0	Mon, 31/Dec	00:30	0	0	20000	0
	01:30	0	0	20000	0		01:30	0	0	20000	0
	02:30	0	0	20000	0		02:30	0	0	20000	0
	03:30	0	0	20000	0		03:30	0	0	20000	0
	04:30	0	0	20000	0		04:30	0	0	20000	0
	05:30	0	0	20000	0		05:30	0	0	20000	0
	06:30	0	0	20000	0		06:30	0	0	20000	0
	07:30	0	0	20000	0		07:30	0	0	20000	0
	08:30	0	0	20000	0		08:30	0	0	20000	0
	09:30	3.4	1	20000	20000		09:30	3.4	1	20000	20000
	10:30	7.7	1	20000	20000		10:30	7.7	1	20000	20000
	11:30	10.3	1	20000	20000		11:30	10.3	1	20000	20000
	12:30	10.8	1	20000	20000		12:30	10.8	1	20000	20000
	13:30	9.3	1	20000	20000		13:30	9.3	1	20000	20000
	14:30	5.9	1	20000	20000		14:30	5.9	1	20000	20000
	15:30	0.9	1	20000	20000		15:30	0.9	1	20000	20000
	16:30	0	0	20000	0		16:30	0	0	20000	0
	17:30	0	0	20000	0		17:30	0	0	20000	0
	18:30	0	0	20000	0		18:30	0	0	20000	0
	19:30	0	0	20000	0		19:30	0	0	20000	0
	20:30	0	0	20000	0		20:30	0	0	20000	0

21:30	0	0	20000	0		
22:30	0	0	20000	0		
23:30	0	0	20000	0		
				88200000	**88200**	**88.2**
				(W)	(kW)	(MWh)

21:30	0	0	20000	0		
22:30	0	0	20000	0		
23:30	0	0	20000	0		
				88200000	88200	88.2
				(W)	(kW)	(MWh)

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Time	DHW (litres/hour)	DHW (litres/second)	Percentage
00:00	416	0.12	6
01:00	416	0.12	6
02:00	416	0.12	6
03:00	416	0.12	6
04:00	416	0.12	6
05:00	416	0.12	6
06:00	416	0.12	6
07:00	6803	1.89	100
08:00	863	0.24	13
09:00	863	0.24	13
10:00	863	0.24	13
11:00	863	0.24	13
12:00	1928	0.54	28
13:00	863	0.24	13
14:00	863	0.24	13
15:00	863	0.24	13
16:00	863	0.24	13
17:00	6803	1.89	100
18:00	863	0.24	13
19:00	863	0.24	13
20:00	863	0.24	13
21:00	863	0.24	13
22:00	863	0.24	13
23:00	416	0.12	6

Catering	1065
Showers	5738
Day base	863
Night Base	416

Hospital		
Daily hot water consumption per person	155	L/person/day
Number of beds	255	
Daily volume of hot water consumed	39525	Litres
Hourly volume of hot water consumed	1646.9	Litres

Catering		
Total meals	255	(meal per bed)
Total meals for staff	100	(estimate)
Total meals	355	
Hot water consumed per meal	3	Litres
Total hot water consumed per meal	1065	Litres
Assume 3 meals per day		
Daily hot water consumed for meals	3195	Litres
Total daily hot water consumed	42720	Litres

Showers		
Number of showers	255	(shower per bed)
Duration	5	minutes
Hot water flow rate per shower	0.1	Litres/s
Diversity	0.75	(assumed)
Total hot water consumption	5737.5	Litres
Assume showering twice per day AM/PM	2	showers/day
Total daily hot water consumption	11475	Litres

CIBSE Guide G Public Health Engineering (CIBSE, 2004) Table 2.10 includes daily hot water use for various types of buildings. We have taken an average figure of 155 L/person/day based on the different mix of Hospital building wards. This figure has been selected based on Engineering knowledge and experience of similar projects. We have applied this daily DHW figure to the number of beds in the proposed building. We have also allowed for catering DHW, with the assumption that 3 meals will be provided per day.
We have developed the DHW profile based on Engineering judgement of how we expect the building to operate. Peak DHW usage are expected to occur during the morning and evenings when showers is assumed to be the peak DHW demand.
The figures have been used to calculate the total mass of hot water use per year by multiplying the values by the number of beds and meals and the days that the building is occupied.
The following details our calculation to evaluate the daily DHW usage.

Re-Provision of RHSC and DCN at Little France

SECTION 4.10 SUSTAINABILITY AND ENERGY MODEL

September 2014 – 6TH ISSUE – FINAL TENDER DOCUMENTS

COMMERCIAL IN CONFIDENCE

SCHEDULE PART 6 (CONSTRUCTION MATTERS)
SECTION 4 (PROJECT CO'S PROPOSALS)
ITEM 10 (SUSTAINABILITY AND ENERGY MODEL)

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1. INTRODUCTION

The holistic design approach delivers a passive, energy efficient and green design. The passive design measures, energy efficiency initiatives and Low and Zero Carbon Generating Technology (LZCGT) reduce resource demand which delivers the required energy and carbon savings to meet and improve on the Building Standards.

In this Project, a holistic and integrated design process has been adopted from the very early design stage through to the completion of the Project as well as interfacing with thermal and efficiency testing procedures and metering strategies. The resulting design reflects an environmentally, socially, and financially responsible design, and includes fully integrated architecture and MEP systems to achieve high performance, sustainable, and optimised design. A Dynamic Simulation Modelling (DSM) tool has been employed to investigate various design strategies and proposals in order to achieve design targets. A 3D dynamic simulation model using the approved DSM software IES VE 2012 has been created to simulate the energy hierarchy and to demonstrate compliance with Scottish Building Regulations (Section 6) as well as to determine the BREEAM Ene01 credit achieved. The 3D dynamic simulation model is regarded as a live energy model, which has been and will continue to be regularly updated as the Project progresses through to handover. The milestones of the model update procedure will follow the stages of the Project. The compliance with the Scottish Building Regulations (Section 6) will be issued for building warrant and the Scottish EPC will be issued upon building handover. During the post Financial Close the model will be continually developed and updated to take account of developments to the design and to ensure that the design is maintained to meet the Project requirements.

In addition, the 3D IES VE model will be used in conjunction with metering strategies and thermal and efficiency testing procedure so that the simulation model can be calibrated simultaneously to bridge the performance gap between predicted simulation results and actual performance results based on measured data. The thermal efficiency of the building system will be monitored through a combination of measurement data derived from BMS and additional physical monitoring sensors. The BMS will be configured to provide complete continuous internal data on a zone basis and the metered data will be imported to the 3D simulation model for calibration and model updating purpose.

This document should be read in conjunction with Schedule Part 12 Section 4 – Energy Strategy.

The proposed building has been divided into 2 blocks as Block A and Block B, as shown in figures below. The model iterations have been used to educate the design process with building fabric U values and solar performance amended for optimum compliance.

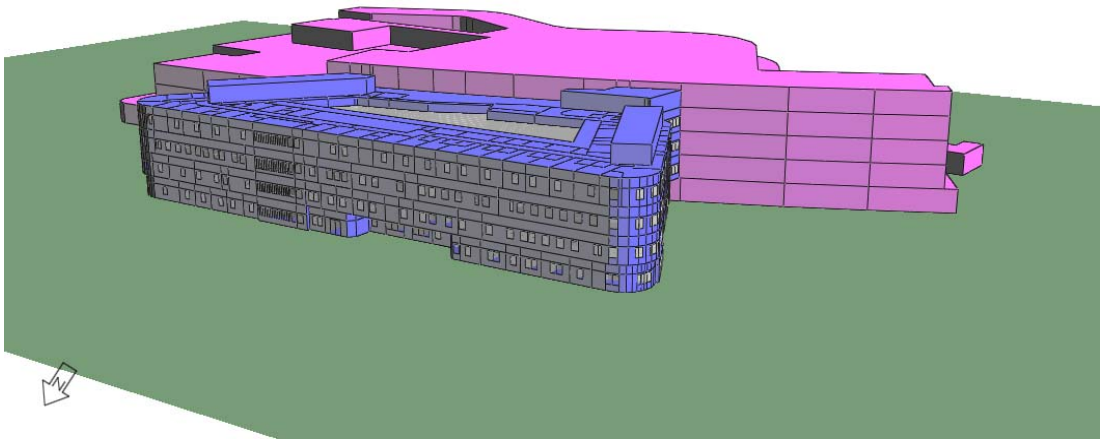


Figure 1: 3D Model of RHSC and DCN – Block A

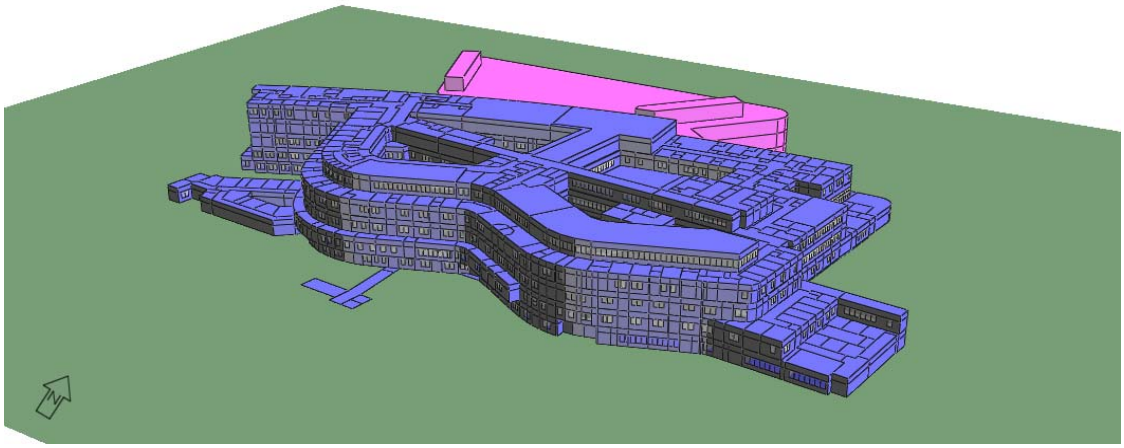


Figure 2: 3D Model of RHSC and DCN – Block B

2. SUSTAINABILITY

2.1 Introduction

The energy hierarchy approach in the design of the building for the facility allows the development to meet and better the carbon reduction requirements of Section 6 (Energy) of the 2013 Scottish Building Standards and achieve a Silver rating under Section 7 (Sustainability) of the 2013 Scottish Building Standards.

The development also meets the sustainability principles set out in the Edinburgh Standards for Sustainability as detailed in the document issued by the Edinburgh City Council "Edinburgh Standards for Sustainable Buildings - Section 3.2 Principles & Standards for Sustainable Building – Key Recommendation details the requirements to meet the standards".

The Project increases the overall energy efficiency of the development through energy efficient design and management. The energy strategy optimises the incorporation of energy efficiency measures into the facility and meets the 2013 Scottish Building Standards carbon reduction requirements. An IES model has been set-up for 2013 Scottish Technical Standards for Section 6 Compliance and EPC. In order to achieve the ENE1 BREEAM credit the IES model has also been simulated using England and Wales Part L2A 2010 methodology.

We will provide a thermally comfortable environment maximising available natural daylighting where the room type and geometry permits and minimising environmental impact, at construction stage and through the facility's lifecycle.

The energy hierarchy adopts passive design features to lower the baseline energy demand, utilises energy efficient building systems and controls before adopting low and zero carbon technologies to reduce carbon emissions further.

This holistic approach in designing the facility and its systems provides reliable low energy and low carbon solutions, which complement the healthcare environment and the needs of the facility users.

2.2 Energy & Resource Conservation

Our design achieves energy and resource conservation through the following prescriptive energy and carbon reduction. Please refer to the document "4.11 – BREEAM Assessment – Issue 2" for additional information on meeting the requirements for BREEAM Ene01.

- 8 credits for Ene01 reduction of emissions in the BREEAM assessment have been achieved (demonstrated through Part L2A 2010 assessment using the BREEAM Ene01 calculator, as explained in the following sections of this document),
- 23.21% of the Sites energy is provided by low carbon and renewable energy sources – Natural Gas Combined Heat and Power (CHP) (derogation submitted regarding the use of Natural Gas CHP in place of a renewable technology) and Solar Photovoltaic Panels. Please refer to electronic document "RHSC DCN IHS Lothian Energy Calculations – Financial Close" for the calculation.
- Scottish Technical Standards 2013 Section 6 Compliance
- Scottish Technical Standards Section 7
- Aspect Silver Level 1: carbon dioxide emissions (Building Emission Rate) are to be 28.6% lower than the Target Emission Rate (TER) set by the 2010 standards. Please refer to electronic document of "RHSC DCN IHS Lothian Energy Calculations – Financial Close" for the calculation
- Edinburgh Council Standard for Sustainable Buildings
- The delivered energy usage for development has achieved design target proposal at Financial Close of 49 GJ/100m^3 of EnCO2de which is less than 55 GJ/100m^3, hence it has met the requirement set by the Scottish Health Technical Memorandum 07-02.

2.3 Energy Approach

2.3.1 Passive Design

The following passive design measures are included

- High performance façade solution with low U-Values and solar transmittance. Details of U-values and solar transmittance refer to the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close".
    - External Wall – 0.20 w/m^{2}k
    - Ground Floor – 0.20 w/m^{2}k
    - Roof – 0.15 w/m^{2}k
    - Window – 1.60 w/m^{2}k
    - Rooflight – 2.00 w/m^{2}k
    - G-Value Window – 0.64 (Block A)
      0.50 (Block B)
    - Window Light Transmission – 0.76
- Low air permeability - the air permeability target value used in the model is 5.
- Size of glazing openings has been examined and proposed through early development with the architect. The proposed glazing strategy will vary according to room activity for each space. The main occupied areas glazed openings are based on the architects practical knowledge of fenestration and our experience of solutions that achieve the balance of natural daylight and reducing unwanted solar gains. Solar controlled glazing is applied to the east, south and west facing facades to reduce the risk of overheating.
- Consideration of building orientation has been taken into account during the early building design process. Due to the shape and complexity of the building geometry and with the repetitiveness of the glazing area along all façades, adjustments to the building orientation will not have a large impact on improving the building energy performance. For example, when rotating the building by 45 degrees, the total energy consumption of some rooms have decreased, but increases in other rooms and the total energy consumption of the whole building has not changed greatly. As mentioned above, the glazing area was determined by the room activity of each space and the balance of glazing proposed does not merit solar shading devices to be used in the building design.
- Thermal mass has been considered as a strategy, which has been achieved through the concrete slab construction. In order to achieve maximum heat absorption, the surface is proposed to be designed as:
    - be 100-200mm thick to provide sufficient mass for optimal heat storage
    - be insulated underneath the slab or on the exterior face of external walls
- Natural ventilation has been incorporated and working in conjunction with mechanical ventilation (mixed mode ventilation) for perimeter rooms in the facility. The natural ventilation is to be operated through openable windows. The strategy is to use natural ventilation whenever it is feasible or desirable, to maximize comfort. To avoid the risk of over cooling, change-over designs have been adopted, where the facility "changes-over" between natural ventilation and mechanical ventilation on a seasonal or even daily basis. No pollution sources have been identified nearby the Site and additionally the building site is located in a suburban tree lined environment, therefore the proposed natural ventilation strategy is feasible. Details of rooms designed with mixed mode ventilation refer to the electronic document "RHSC DCN IHS Lothian Operational Energy Model Input Data – Financial Close".

2.3.2 Energy Efficiency

The following energy efficient building systems are included and for details of the values assigned in the simulation model; refer to the electronic document “RHSC DCN IHS Lothian Operational Dynamic Energy Model Input Data – Financial Close”. For technical information of how these energy efficiency systems operate in the building refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”.

- Reduced lighting power densities / high efficiency fluorescents and the use of 50% LED lighting;
- Presence detection – auto on/off sensors are applied; refer to the electronic document “RHSC DCN IHS Lothian Operational Energy Model Input Data – Financial Close”;
- Low specific fan powers refer to the electronic document “RHSC DCN IHS Lothian Operational Energy Model Input Data – Financial Close”;
- Mechanical ventilation units incorporating heat recovery minimum 60%;
- Variable speed pumps with multiple pressure sensors on all main circulating heating and cooling pumps;
- Building controls to ensure the optimum performance of the systems; refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”;
- Metering and sub-metering to allow better management of energy uses all thermal and electrical energy to be sub-metered; refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”;
- Low loss transformers and power factor correction >0.95 refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”;
- Free cooling chillers using air cooled chillers refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”.

2.3.3 LZCT

The following low and zero carbon measures are included.

- Gas fired Combined Heat and Power (CHP), detailed as the table below:

Table 1 – Combined Heat and Power detail

Combined Heat and Power	
Fuel	**Natural Gas**
Performance Rated Output (%)	100
Heat Output (kW)	654
Thermal Efficiency (%)	44
Electrical Efficiency (%)	40
Performance Minimum Output (%)	50
Thermal Efficiency (%)	48
Electrical Efficiency (%)	36.5
Profile	G1547_CHP_Annual

The model allows 1 day CHP downtime every 6 months for maintenance. For details of how CHP is operated in different seasons and loads refer to Appendix 4.8 CHP Utilisation Strategy.

- Solar Photovoltaic’s (PV) providing electricity for use within the facility, detailed as the table below:

Table 2 – Photovoltaic Panels detail PV setup

Photovoltaic Panels	
Area (m2)	800
Type	Polycrystalline
Nominal Efficiency (%)	15
Nominal Cell Temperature (oC)	45
Temperature Coefficient	0.004
Electrical Conversion Efficiency (%)	95
Inclination Angle (deg)	30
Angle from North (deg)	180.0 (South)

2.4 Scottish Technical Standards Section 6 Compliance

Section 6 (Energy) of the Scottish Building Regulations aims to ensure that effective measures for the conservation of fuel and power are incorporated in buildings. In addition to limiting energy demand through specification of the performance of building fabric and building services, a carbon dioxide emissions standard (Standard 6.1) obliges designers of new buildings to consider building performance in a holistic manner.

The Scottish Building Regulations Technical Standards Section 6 (Energy) details the calculation methodology and the modeling has been carried out in accordance to the methodology and the modeling has been carried out in accordance to the methodology using approved DSM software IES.

The TER with the benchmark applied must be achieved but the inclusion of LZC technologies is not mandatory.

UK calculation tools conform with European Directive 2002/91/EC and are to be used with the carbon dioxide emissions standard and in the production of Energy Performance Certificates (EPCs). For non-domestic buildings, the National Calculation Method (NCM) is used.

Dynamic Simulation Model (DSM) primarily applies to building analysis software that can model the thermal dynamic response of buildings. These software tools can be used both to demonstrate compliance with Standard 6.1 of the Building Regulations and for producing EPCs.

Approved software IES VE 2012 demonstrates that Project Co will achieve compliance with Section 6 of the Scottish Technical Standards refer to PCP document “Section 4.9 Mechanical & Electrical Engineering”.

Appendix 4.1 of this document includes the Section 6 BRUKL report. The table below summarises the results of the compliance analysis:

Table 3 Summary results of the Section 6 carbon dioxide emission

Block	Section 6 Target Emission Rate (TER) kgCO2/m^2	Section 6 Building Emission Rate (BER) kgCO2/m^2	Section 6 Compliance?
A	45.9	31.1	Yes
B	37.4	27.0	Yes

2.5 Scottish Energy Performance Certificate

The Energy Performance Certificate (EPC) has been introduced through European legislation and the Energy Performance of Buildings Directive (EPBD). The certificate provides an illustration of the energy efficiency of a building based on standard assertions for occupation and use. The EPC shows the rating range for a building as **A-G**, with **A** being the most efficient.

Standard 6.9 of the Scottish Technical Standards note that every building must be designed and constructed in such a way that:

a. an energy performance certificate for the building is affixed to the building.

b. the energy performance certificate is displayed in a prominent place within the building.

The certification must be carried out using the Directive compliant methodology and the calculation tool, which was used to assess compliance with Standard 6.1.

Using the approved software, IES VE 2012 predicts that Project Co will achieve a minimum EPC rating of C.

Appendix 4.2 of this document includes the draft EPC.

2.6 Section 7 Compliance

The Energy Strategy allows the development to comply with Section 7 Aspect Silver 1 Level.

The standard sets out to encourage developments to go beyond the minimum standards of sustainability required within the Building Standards Sections 1 to 6. Details refer to *Technical Handbook: Non-domestic – Sustainability* for additional guidance on the ratings applicable.

The aim of the standard is to:

- Recognise the level of sustainability already achieved, as compliance with the 2010 regulations is the benchmark level.
- Encourage more demanding sustainable standards.
- Encourage consistency between planning authorities that use supplementary guidance to promote higher levels of sustainability.

The standard will provide a sustainability "label" to the building, which will require to be displayed prior to completion as per an EPC certificate.

A building at this first optional upper level (in this aspect only) should meet all the standards in sections 1 – 6 that apply to the building for the bronze level and in addition, the building should comply with the following:

Carbon dioxide emissions – Under the guidance to standard 6.1, carbon dioxide emissions (Building Emission Rate) is to be 28.6% lower than the Target Emission Rate (TER) set by the 2010 standards. To establish this, the TER from NCM calculation should be multiplied by 0.714, to give a revised figure that the BER should not exceed.

Approved software IES VE 2012 demonstrates that Project Co will achieve compliance with Section 6 of the Scottish Technical Standards.

Appendix 4.1 of this schedule includes the Section 6 BRUKL report. The table below summarises the results of the compliance analysis:

The Energy Strategy allows the development to comply with Section 7 Aspect Silver 1 as summarised below:

The two models Block A and B results have been multiplied by an appropriate weighting factor based on the building floor area to calculate the average carbon emissions figures from Block A and B results. Refer to the document of "RHSC DCN IHS Lothian Energy Calculations – Financial Close".

Table 4 Summary of the average Section 6 compliance results for the overall building with appropriate weighting factor applied.

Block	Section 6 Target Emission Rate (TER) kgCO2/m2	Section 6 Building Emission Rate (BER) kgCO2/m2	Section 7 Improvement (Target 28.6%)
All	39.10	27.82	28.84%

2.7 Edinburgh Council Standard for Sustainable Buildings

The aim of the Edinburgh Standards for Sustainable Building is to promote sustainable development that mitigates against climate changes caused by carbon emissions.

Planning application now have to be accompanied by a sustainability statement which details how the applicant proposes to meet the sustainability standards. The standards are divided according to six key principles/themes;

1. Design quality
2. Inclusive, safe and healthy environments
3. Reduction of climate change and increase of renewables
4. Use of sustainable resources and materials
5. Reduction of pollution and increase of recycling
6. Improvement in sustainable construction and operation

To ensure the standards are met the sustainability statement poses a series of questions under each principle, with the applicant's response to the each question being evaluated and scored. The applicant must reach a minimum threshold of points for each section/principle with the scoring system based generally on whether the standard is met or not. The minimum threshold of points that must be obtained can vary depending upon the type, location and importance of the proposed development.

There are however, two mandatory standards under the third principle which have been met.

- CO^2 emissions from the development are at least 5% lower than the Target Carbon Dioxide Emissions Rating (TER).
- A minimum of 10% of the energy requirement for the development is to be supplied by renewable energy generation.

Project Co have provided input to the Edinburgh Standards for Sustainable Building S1 form. This sustainability statement has now been submitted to the City of Edinburgh Council to discharge planning condition No. 1(j). Please refer to Appendix 4.3 Edinburgh Standards for Sustainable Building S1 form.

Derogation has been submitted regarding the use of natural gas fuelled CHP in place of renewable technology.

2.8 Scottish Health Technical Memorandum 07-02

The Scottish Health Technical Memorandum 07-02 (EnCO2de) requires that the delivered energy usage for the development is less than 55 GJ/100m^3. The Financial Close Energy Model has achieved 49 GJ/100m^3.

Compliance has been achieved and this is confirmed by the operational models provided which have been combined with additional energy consuming systems not included within the model, namely – lifts, catering, freezers and external lighting.

The combined energy model results are detailed in the electronic document ‘RHSC DCN IHS Lothian Operational Energy Model – Financial Close’.

The allowances and operational details, as entered into the dynamic model, are detailed in the electronic document ‘RHSC DCN IHS Lothian Energy Model Input Data-Financial Close’ and Appendix 4.4 ‘Energy Model Inputs Templates – Financial Close’.

2.9 Ene01 Reduction of Emissions BREEAM Assessment

The energy strategy for the development achieves a minimum of 6 credits for issue Ene 01 Reduction of CO_2 emissions.

The following outputs have been assessed for the calculation of the credit:

- Energy demand for the facility.
- Energy consumption for the facility.

- CO_2 emissions for the facility.

Using the above an Energy Performance Ratio for New Constructions (EPR_{NC}) is generated for the development which is then judged against benchmark scales using the English Building Regulations Approved Document Part L 2A.

The Financial Close Energy Model has achieved 8 credits and demonstrated a 25% reduction in CO_2 emissions under Part L2A 2010 arising from regulated building energy consumption. Refer to Appendix 4.5 'BREEAM Ene01 Compliance Checker Calculator" for details. A weighted factor that has been applied to both Block A and B Part L results to determine the 25% reduction.

Refer to document '4.11 – BREEAM Assessment" for further information on BREEAM credits.

2.10 Potable Water Consumption

Potable water consumption for the Facilities will not exceed 170,000 litres/bed/annum.

As per the SHTM 01-01 Water Safety for Healthcare Premises the development, construction, installation and maintenance of hot and cold water supply systems are vital for public health.

Healthcare premises are dependent upon water to maintain hygiene and a comfortable environment for patients and staff, and for clinical and surgical care.

Since the interruption of water supply can disrupt healthcare activities the design of systems must ensure that sufficient reserve water storage is available to minimise the consequence of disruption, while at the same time ensuring an adequate turnover of water to prevent stagnation in storage and distribution vessels.

Water provision to the Project will be fully compliant with the SHTM 04-01 and will achieve two credits on BREEAM Wat-01 Water Consumption. The core water provision will be maintained with the improvements and water saving measures based on:

- Reduced water consumption through specification of water efficient fittings. The fittings will allow the Project to achieve Performance Level 2 within BREEAM credit Wat-01.
- Metering of water consumption and provision of leak detection systems to achieve BREEAM credits Wat-02 and Wat-03.
- Motorised valves on water distribution to toilets controlled via presence detectors to minimise water wastage i.e. room occupied water available, room unoccupied water not available to achieve BREEAM credit Wat-03.
- Water efficient fittings in line with BREEAM credit Wat-01.

Please refer to "*4.11 – BREEAM Assessment*" for further explanation of BREEAM credits.

3. OPERATIONAL ENERGY MODEL

3.1 Introduction

This section details the methodology and results of the Energy Model. The results detailed in this document are based on a combination of actual data, NCM values and a competent engineer's knowledge of building services. The model has used actual equipment efficiencies proposed for the facility. However, these figures should not be deemed to give 100% accuracy and thus should not be used for detailed energy reference. The data detailed in this document will be a guide only to evaluate the actual energy consumption of the facility and may include data collected from analysis of previous projects.

The results given in this report are based on the output of a complex, dynamic thermal model which takes account of predicted data; relating to plant and systems, published data and theoretical judgement with regards to the following design criteria; building orientation, geometry and fabric, climate data, internal gains and occupancy profiles, plant efficiencies and operational hours. Although actual data and design parameters have been used during this detailed analysis, there is still a large amount of uncertainty. Certain information that will affect the 'true' energy consumption of the facility include, occupancy times, behaviour characteristics of the occupants and detailed information on services. The outputs from the model contain theoretical and actual data and indicate a better indication of the thermal performance of the facility throughout the year compared to the facility based on NCM values.

In addition to these assumptions and any stated facility usage characteristics, the importance of user diligence should be highlighted as the simulation is modelled on this principal. Diligent use of space involves users not leaving equipment (computers), heating and lighting switched on all the time.

Dynamic Simulation Models (DSM) contain inherent simplifications and assumptions compared to the way that a real building would operate. For example, DSM use a simplified approach for the heat flow through the ground floor slab with an assumed ground temperature, U-values are static, when they are actually dynamic and change with temperature and other climatic conditions and use standard weather data sets based on historic weather data, which will be different from the conditions in any given year that the facility is operating.

3.2 Modelling Methodology

The general procedure for this investigation comprises the creation of a 3D geometrical model of the proposed building using approved Integrated Environmental Solutions Virtual Environment 2012 (IES VE 2012). This is referred to as IES.

The methodology set out proposes that the energy use of complex systems heating, cooling, humidification, ventilation systems should be evaluated using some form of dynamic simulation model (DSM).

DSM should provide a better estimate of energy use compared to steady state calculations as they take into account more of the complexities of the variation in energy use across the year.

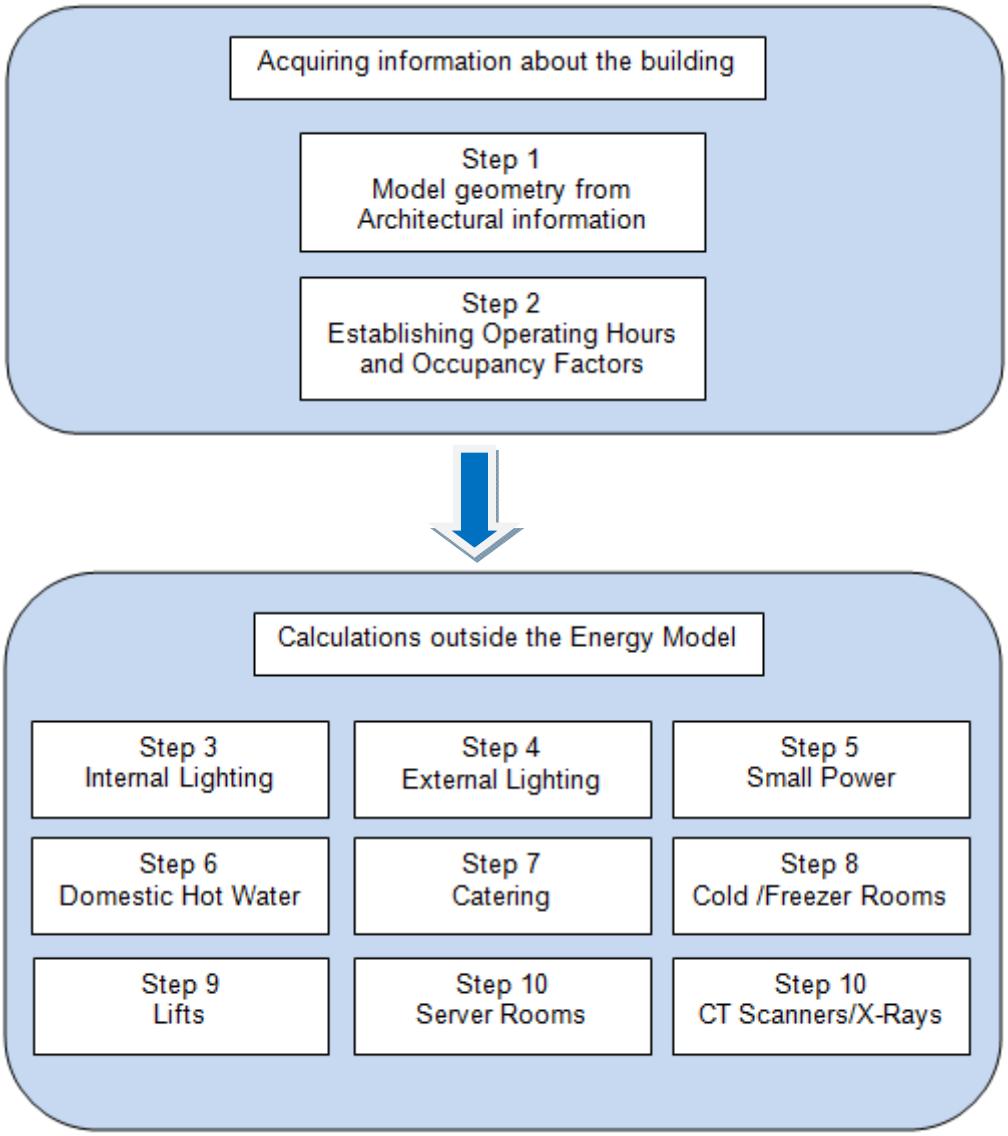
The model has been zoned and internal conditions (heat gains and environmental controls) and constructional building elements attributed to the model. This building model allows simulation results to be obtained for:

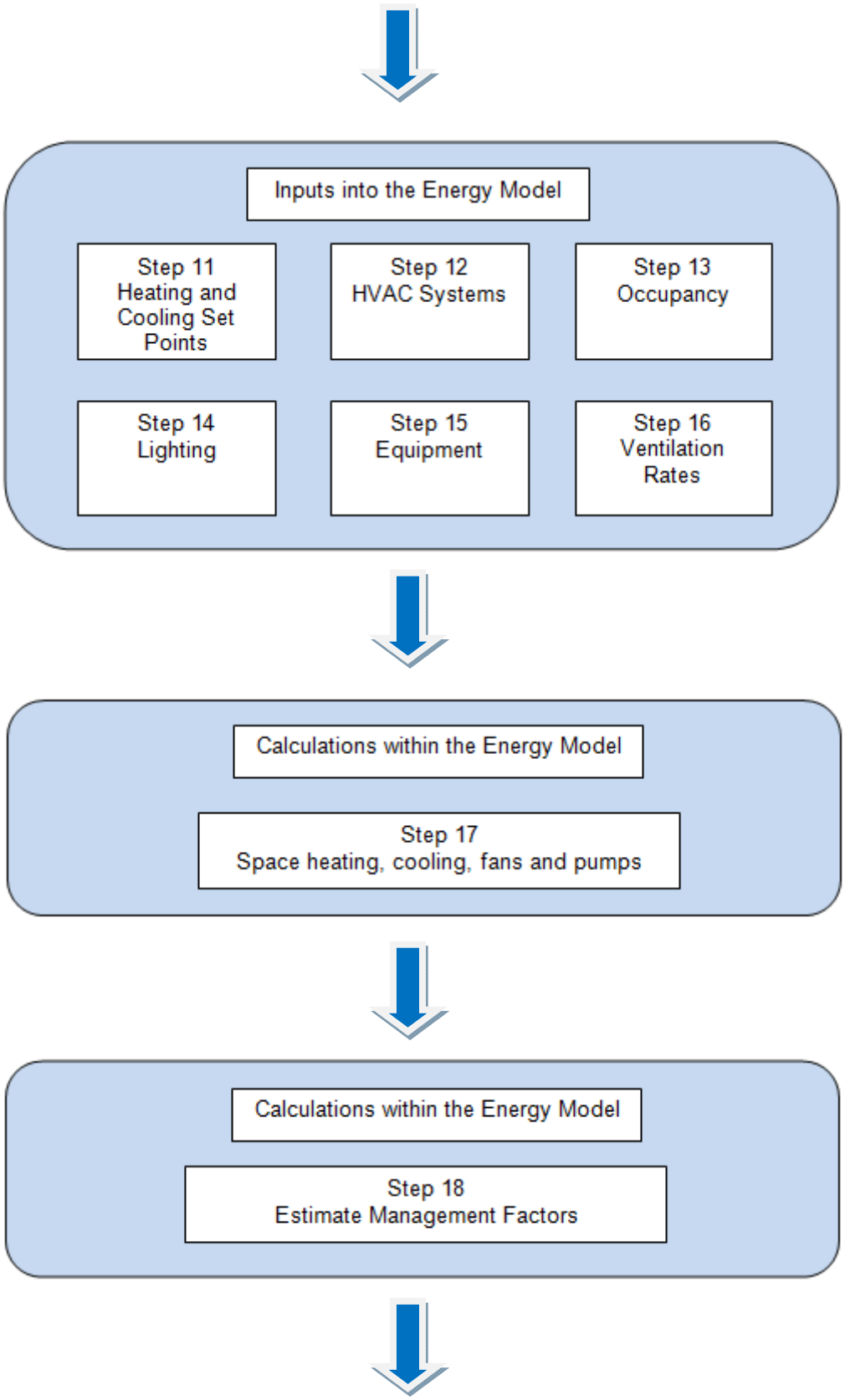
- Total natural gas
- Total electricity usage
- Boiler Loads
- CHP generated heat
- DHW heating demand
- Total Building energy

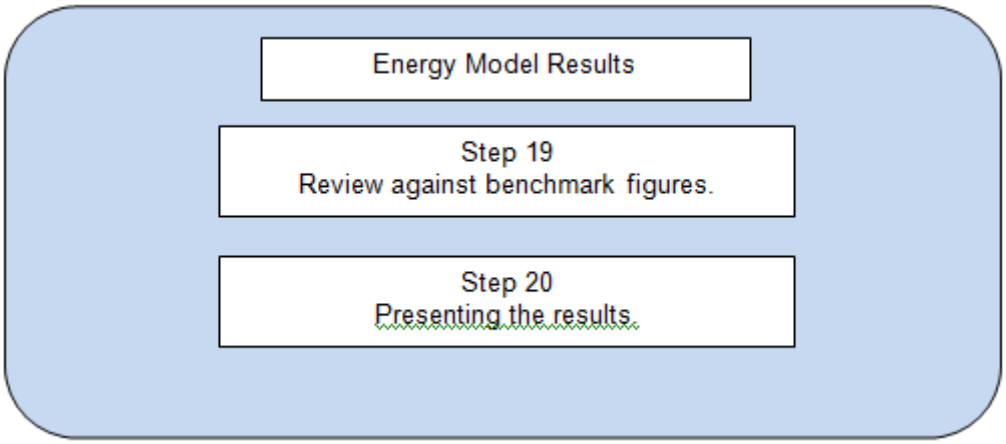
- Total carbon emission
- Model Construction

A 3D model of the design building has been constructed within IES VE 2012. The building model zoned into separate areas dependant on function and building type.

The flow chart below details the methodology approach adopted to evaluate the operational energy of the building.




Inputs into the Energy Model
Step 11
Heating and Cooling Set Points
Step 12
HVAC Systems
Step 13
Occupancy
Step 14
Lighting
Step 15
Equipment
Step 16
Ventilation Rates
Calculations within the Energy Model
Step 17
Space heating, cooling, fans and pumps
Calculations within the Energy Model
Step 18
Estimate Management Factors



3.2.1 Model Attribution

In order to collect accurate data, the model has been fully attributed with respect to it's building elements, climatic data and internal conditions, as detailed in the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close" and Appendix 4.4 'Energy Model Inputs Templates – Financial Close'.

3.2.2 Building Elements

Each building element is specified with a material construction of close approximation to the design building. Construction elements have been developed from the proposed architectural details, as shown in the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close".

Another important parameter that has been considered regarding construction details is the glazing solar transmission value (g-value). The g-value is the sum of the direct and reflected solar radiation through glazing. The lower the g-value the lower the solar penetration. The g-value used in the model for north facing glazing (Block A) has a value of 0.64 and the remainder of the glazing on the other facades (south, east and west facing) uses glazing with a g-value of 0.5 (Block B).

3.2.3 Climatic Data

The facility performance has been calculated as it is exposed to climate, occupants and conditioning systems to produce predictions of the temperatures within the space. In order for these predictions to be as precise as possible it is vital that accurate weather data is selected for the simulation.

The simulation weather data used is CIBSE Edinburgh TRY weather file.

It must be noted that variations in weather conditions will have implications on the energy used within the facility. A severe winter is likely to result in increased heating demand on the facility.

3.2.4 Internal Conditions

The main building type has been modelled as a hospital. There are NCM (national calculation methodology) internal conditions available within the simulation that allows figures for the occupants, lighting, miscellaneous, auxiliary ventilation and infiltration rates to be applied to the building. The templates applied to each zone depends on the type of building and the activity within the space, as detailed in the electronic document of "RHSC DCN IHS Lothian Energy Model Input Data – Financial Close" and Appendix 4.4 'Energy Model Inputs Templates – Financial Close'

A detailed analysis was required to ascertain accurate data on the energy loads of the facility and many profiles were created to simulate "actual" internal conditions.

A profile details the time and diversity factor of the internal gain in question and has been used to simulate activity within a room, dependant on the day of the week.

3.3 Model geometry from Architectural information

The model is based on the architectural revit geometry.

The model geometry has been divided into two blocks as Block A and Block B, as shown in figures 1 and 2 in Section 1 of this document.

3.4 Establishing Operating Hours and Occupancy Factors

The hours of operation have been estimated by establishing the occupancy or operating hours of the facility and the way that the facility is to be managed. Consideration has been taken in terms of determining more realistic hours of occupation and the likely run-hours of the plant and equipment in the building e.g. extended hours of operation.

The results detailed in this schedule have been based on a combination of actual data, NCM values and a competent engineer's knowledge of building services, as detailed in the electronic document of 'RHSC DCN IHS Lothian Energy Model Input Data – Financial Close' and Appendix 4.4 Energy Model Inputs Templates – Financial Close.

3.5 Evaluating Internal Lighting Energy Use

Low energy light fittings and the lamp sources have been selected to meet the overall lighting design requirements. We have utilised Light Emitting Diodes (LED) sources within 50% of the luminaries with high efficiency T5 Eco lamps (except RA90 requirements) being used elsewhere. Project Co. lighting manufacturer has confirmed the internal lighting power density figures (W/m^2/100lux), provided for all room types are listed in the electronic document of 'RHSC DCN IHS Lothian Energy Model Input Data – Financial Close'

3.6 Evaluating Energy Use for External Lighting

The proposed external lighting scheme has been used to determine the number of light fittings. The total watts for the external lighting has been calculated based on the proposed light fittings detail. Refer to PCP document "Section 4.9 Mechanical & Electrical Engineering" for energy efficiency of the luminaires. To evaluate the likely number of hours that the lights shall operate over a given year we have used both the CIBSE Edinburgh Test Reference Year (TRY) and Design Summer Year (DSY) to determine the number of daylight hours for the year. This has been determined by analysing the sunrise and sunset hours. We have then calculated the total annual energy use for external lighting utilising this data. The calculation is detailed in the electronic document of "RHSC DCN IHS Lothian Operational Energy Model – Financial Close".

3.7 Evaluating Energy Use for Small Power

The small power energy allocation has been based on estimated load densities and operational hours. Small Power includes power utilised by small medical equipment, office equipment, communal small power (e.g. printers, TVs as well as refrigerators and vending machines). The figures are detailed in the electronic document of "RHSC DCN IHS Lothian Operational Energy Model – Financial Close".

3.8 Evaluating Energy Use of Domestic Hot Water

We have used figures from CIBSE Guide G Public Health Engineering (CIBSE, 2004) Table 2.10, which includes daily hot water use for various types of buildings. We have taken an average figure of 155 L/person/day based on the different mix of hospital building wards. This figure has been selected based on engineering knowledge and experience of similar projects. We have applied this daily DHW figure to the number of beds in the proposed facility. We have also allowed for catering DHW, with the assumption that 3 meals will be provided per day.

We have developed the DHW variation profile based on engineering judgement of how we expect the facilityto operate. Peak DHW usage is expected to occur during the morning and evenings when showers are assumed to be the peak DHW demand. The calculation and the developed variation profile is detailed in the electronic document of "RHSC DCN IHS Lothian Operational Energy Model – Financial Close".

3.9 Evaluating Energy Use for Catering

The proposed catering facilities will be all electric and we have been working with the catering supplier to evaluate the electrical energy use of the equipment. The figures are detailed in the electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close”.

3.10 Evaluating Energy Use for Freezer Rooms

There are two freezer rooms within the Facility, each with a 5m floor area. The units shall have proprietary cooling equipment. We have evaluated the energy use based on the estimated freezer load and efficiency. The electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close” details the calculation method we have employed to evaluate the energy use.

3.11 Evaluating Energy Use for Lifts

Close dialogue with the proposed lift manufacture has been conducted in order to evaluate the energy use of the lifts. The electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close” details the calculation method we have employed to evaluate the energy use.

3.12 Evaluating Energy Use for Server Rooms

Generic loads have been utilised for plant sizing and are the basis of evaluating the energy use for Server Rooms detailed in the electronic document of “RHSC DCN IHS Lothian Operational Energy Model – Financial Close”.

3.13 Evaluating Energy Use MRI, CT Scanners/X-rays

The units will be provided with proprietary cooling equipment. Generic loads have been utilised for plant sizing and are the basis of evaluating the energy use.

3.14 Evaluating Energy Use of Space Heating, Cooling, Fans and Pumps

The internal conditions for the model allow figures for the occupants, lighting, miscellaneous, auxiliary ventilation and infiltration rates for the facility. The thermal template applied to each zone will depend on the room activity. The Energy Model calculates the energy consumption for space heating, cooling, fans and pumps. The electronic document of ‘RHSC DCN IHS Lothian Operational Energy Model – Financial Close’ details the model inputs.

3.15 Estimating Management Factors

The facility will be well managed, with the systems being well maintained, controls calibrated, energy saving features being applied and the energy use is being monitored and managed. In practice, there might be possible variations in operation that may result in higher energy use. Hence, an overall management factor can be applied to the results to give a representation of the energy use of the facility based on its management during its operation.

The table below details three different management characteristics that are assumed:

Table 5: Management Factors

Excellent Management	Average Management	Poor Management
1.00	1.05	1.10

3.16 Results

RHSC, Little France Financial Close: excellent management (Management Factor=1)

Heated Volume (100/m^3)	1066
Operational Energy Prediction Summary	
From Dynamic Thermal Model Results	Total MWh
Boilers Heating (MWh)	562.15
Boilers DHW (MWh)	89.86
Chillers (MWh)	12.58
Fans & Pumps (MWh)	1381.19
Heat Rejection Fans & Pumps (MWh)	6.09
PV Generated Electricity (MWh)	-97.73
CHP Gas Usage (MWh)	4731.95
CHP Generated Electricity (MWh)	-1892.78
Lights Electricity (MWh)	1459.86
Equipment Electricity (MWh)	5888.77
From spreadsheet calculation	
Lifts (MWh)	859.06
Catering (MWh)	1314.00
Freezer (MWh)	9.86
External Lighting (MWh)	88.20
Total gas consumption (MWh)	5383.95
Overall grid electricity (MWh)	1120.47
Target Delivered Energy Usage (GJ/m3)	55
Operational Energy Prediction (GJ/m^3)	49

4. APPENDICES

4.1 Section 6 Compliance BRUKL Report

Apache Specification Information

Scottish Building Regulations 2010 Section 6 Guidance
Carbon Dioxide Emissions, U-Values, Air Permeability, and HVAC

Project name

Block_A_Section_6_sim000

Date: Mon Aug 25 23:19:43 2014

Administrative information

Building Details

Address: City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

Compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Agent details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

1- Predicted CO2 emission from proposed building

1.1	Calculated CO2 emission rate from notional building	89.8 KgCO2/m2.annum
1.2	Improvement factor	0.51
1.3	LZC benchmark	0.15
1.4	Target CO2 Emission Rate (TER)	45.9 KgCO2/m2.annum
1.5	Building CO2 Emission Rate (BER)	31.1 KgCO2/m2.annum
1.6	Are emissions from building less than or equal to the target?	BER =< TER YES

2- The performance of the building fabric and the building services systems

2.1 How do the U-values compare with Section 6 guidance?

The building follows guidance in Scottish Building Regulations 2010

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Limit}$	$U_{i\text{-}Calc}$	Surface where this maximum value occurs*
Wall	0.27	0.2	0.7	0.2	TEMP0018:Surf[4]
Floor	0.22	0.2	0.7	0.2	1___0000:Surf[0]
Roof	0.2	0.15	0.35	0.15	3CRR0002:Surf[0]
Windows**, roof windows, and rooflights	2	1.83	3.3	2	3TRM0000:Surf[0]
Personnel doors	2	-	3.3	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	1.5	-	No Vehicle access doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [W/(m2K)]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [W/(m2K)]
$U_{i\text{-}Limit}$ = Limiting individual element U-values [W/(m2K)]
$U_{i\text{-}Calc}$ = Calculated individual element U-values [W/(m2K)]

* There might be more than one surface exceeding the limiting standards.
** Display windows and similar glazing are not required to meet the standard given in this table.

2.2 Air permeability

Air Permeability	This building's value
m3/(h.m2) at 50 Pa	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

2- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

4- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	**Supply & extract SFP [W/(l/s)]**	**Exhaust SFP [W/(l/s)]**
1 - Office	1.5	-
1 - WC	-	0.6
1-D1-001 - DSR	-	0.6
1-D1-002 - Consult Exam	1.5	-
1-D1-004 - Linen	1.5	-
1-D1-005 - Consult Exam	1.5	-
1-D1-010 - Dirty Utility	1.5	-
1-D1-011 - WC	-	0.6
1-D1-012 - Shower Room	-	0.6
1-D1-013 - Clean Utility	1.5	-
1-D1-014 - Consult Exam	1.5	-
1-D1-016 - Consult multi-disciplinary	1.5	-
1-D1-017 - Consult Exam	1.5	-
1-D1-018 - Consult Exam Ophthalmology	1.5	-
1-D1-019 - Consult Exam ENT	1.5	-
1-D1-020 - Consult Exam Cleft	1.5	-
1-D1-021 - Consult Exam Cleft	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
1-D1-022 - Consult Exam ENT	1.5	-
1-D1-023 - Consult Exam ENT	1.5	-
1-D1-027 - Sub-waiting play Nurse Base	1.5	-
1-D1-027 Sub waiting play/Nurse Bay	1.5	-
1-D1-030 - Nappy Change	-	0.6
1-D1-031 - Equipment General Store	-	0.6
1-D1-032 - WC	-	0.6
1-D1-038 - WC	-	0.6
1-D3-004 - DSR	-	0.6
1-D3-006 - CE Orthoptic	1.5	-
1-D3-007 - CE Orthoptic	1.5	-
1-D3-008 - CE Orthoptic	1.5	-
1-D3-009 - CE Orthoptic	1.5	-
1-D4-004 - Staff Office BP	1.5	-
1-D4-005 - Testing Clinic Room	1.5	-
1-D4-007 - Testing Clinic Room	1.5	-
1-D4-009 - Waiting Area	1.5	-
1-D6-001 - Office	1.5	-
1-D6-004 - Office	1.5	-
1-D6-006 - WC	-	0.6
1-D6-007 - WC	-	0.6
1-D6-009 - Office	1.5	-
1-D6-010 - Office	1.5	-
1-D6-011 - TIP St	-	0.6
1-D6-015 - Physio St	-	0.6
1-D6-016 - Management Office (4p)	1.5	-
1-D6-017 - AC Staff Office (9p)	1.5	-
1-D6-018 - DSR	-	0.6
1-D6-020 - Dietetic Clinic Room	1.5	-
1-D6-021 - Dietetic Clinic Room	1.5	-
1-D6-023 - Reception (2p)	1.5	-
1-D6-024 - WC Wheelchair	-	0.6
1-D6-026 - Linen	1.5	-
1-D6-031 - Dietetic Store	-	0.6
1-D6-037 - Physio Store	-	0.6
1-D6-038 - OT St	-	0.6
1-D6-041 - Store - OT	-	0.6
1-D6-042 - Pantry	-	0.6
1-D6-043 - Physio St	-	0.6
1-D6-044 - WC	-	0.6
1-D6-049 - Chg	1.5	-
1-D6-050 - Physio St	-	0.6
1-D6-051 - Chg	1.5	-
1-D6-052 - Physio St	-	0.6
1-D6-057 - WC Assist Chg	-	0.6
1-D7-001 - Assisted Bathroom	-	0.6
1-D7-002 - Dressings Doppler Store	-	0.6
1-D7-005 - Office	1.5	-
1-T1-003 - IT Node Room	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
1-T1-004 - IT Node Room	1.5	-
2 - Office	1.5	-
2 - Office	1.5	-
2-R1-001 - Staff Room	1.5	-
2-R1-002 - Office	1.5	-
2-R1-004 - Office	1.5	-
2-R1-007 - DSR	-	0.6
2-R1-008 - Store	-	0.6
2-R1-009 - Printer Photocopier Room	1.5	-
2-R1-010 - Office	1.5	-
2-R1-011 - Office	1.5	-
2-R1-012 - Office	1.5	-
2-R1-013 - WC	-	0.6
2-R1-014 - WC	-	0.6
2-R1-016 - WC	-	0.6
2-R1-017 - Office	1.5	-
2-R1-018 - Office	1.5	-
2-R1-019 - Office	1.5	-
2-R1-020 - Printed Photocopier Room	1.5	-
2-R1-024 - Office	1.5	-
2-R1-025 - Office	1.5	-
2-R1-029 - Office	1.5	-
2-R1-030 - Office	1.5	-
2-R1-031 - Office	1.5	-
2-R1-032 - WC Wheelcahir Access	-	0.6
2-R1-033 - WC	-	0.6
2-R1-034 - DSR	-	0.6
2-R1-035 - Printer Photocopier Room	1.5	-
2-R1-037 - Store	-	0.6
2-R1-038 - WC	-	0.6
2-R1-039 - Office	1.5	-
2-R1-040 - Office	1.5	-
2-R1-041 - Office	1.5	-
2-R1-042 - Office	1.5	-
2-R1-043 - Clinical Store	-	0.6
2-R1-044 - Printer Photocopier Room	1.5	-
2-R1-047 - Store	-	0.6
2-R1-048 - Office	1.5	-
2-R1-049 - Open Plan Desk Area	1.5	-
2-R1-049 - Open Plan Desk Area	1.5	-
2-R1-051 - Open Plan Desk Area	1.5	-
2-R1-052 - Open Plan Desk Area	1.5	-
2-R1-052 - Open Plan Desk Area	1.5	-
2-R1-052 - Open Plan Desk Area	1.5	-
2-R1-053 - Open Plan Desk Area	1.5	-
2-R1-054 - Open Plan Desk Area	1.5	-
2-R1-055 - Open Plan Desk Area	1.5	-
2-R1-055 - Open Plan Desk Area	1.5	-
2-R1-055 - Open Plan Desk Area	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
2-R1-055 - Open Plan Desk Area	1.5	-
2-T1-005 - IT Node Room	1.5	-
2-T1-006 - IT Node Room	1.5	-
3-H3-001 - Workshop/Tutorial Room 3	1.5	-
3-H3-002 - Control Room	1.5	-
3-H3-003 - Storage	-	0.6
3-H3-004 - Workshop/Tutorial Room 2	1.5	-
3-H3-006 - WC	-	0.6
3-H3-007 - WC	-	0.6
3-H3-008 - WC	-	0.6
3-H3-010 - Workshop/Tutorial Room 1	1.5	-
3-H3-012 - DSR	-	0.6
3-H3-013 - Manual Handling Health and Safety	1.5	-
3-H3-014 - Practice Based Educators Office	1.5	-
3-H3-018 - Management/Admin Office	1.5	-
3-H3-019 - Computer Games	1.5	-
3-H3-020 - Lockers	-	0.6
3-K2-002 - Reception	1.5	-
3-K2-003 - Office (1p)	1.5	-
3-K2-004 - WC	-	0.6
3-K2-005 - WC	-	0.6
3-K2-006 - Lounge non-residents	1.5	-
3-K2-007 - WC	-	0.6
3-K2-008 - Family Room 1	1.5	-
3-K2-009 - En-suite 1	-	0.6
3-K2-010 - Family Room 3	1.5	-
3-K2-011 - En-suite 3	-	0.6
3-K2-012 - Family Room 2	1.5	-
3-K2-013 - En-suite 2	-	0.6
3-K2-014 - Family Room 4	1.5	-
3-K2-015 - En-suite 4	-	0.6
3-K2-016 - Family Room 5	1.5	-
3-K2-017 - En-suite5	-	0.6
3-K2-019 - Family Room (Acc 1)	1.5	-
3-K2-020 - En-suite Ac 1	-	0.6
3-K2-021 - Family Room 6	1.5	-
3-K2-022 - En-suite 6	-	0.6
3-K2-023 - Family Room 7	1.5	-
3-K2-024 - En-suite 7	-	0.6
3-K2-025 - Family Room8 (4p)	1.5	-
3-K2-026 - En-suite 8	-	0.6
3-K2-027 - Family Room 9	1.5	-
3-K2-029 - Family Room 10	1.5	-
3-K2-030 - En-suite 10	-	0.6
3-K2-032 - Family Room 11	1.5	-
3-K2-033 - En-suite 11	-	0.6
3-K2-033 - En-suite 11	-	0.6
3-K2-035 - Family Room 12	1.5	-
3-K2-036 - En-suite 12	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
3-K2-037 - Family Room 13	1.5	-
3-K2-038 - En-suite 13	-	0.6
3-K2-039 - Store	-	0.6
3-K2-040 - Family Room 14	1.5	-
3-K2-041 - En-suite 14	-	0.6
3-K2-042 - Laundry	1.5	-
3-K2-043 - En-suite 15	-	0.6
3-K2-044 - Family Room 15	1.5	-
3-K2-045 - Family Room 16 (4p)	1.5	-
3-K2-046 - En-suite 16	-	0.6
3-K2-047 - DSR	-	0.6
3-K2-048 - WC	-	0.6
3-K2-050 - Kitchen/Dining Room	1.5	-
3-K2-051 - Residents Day Room	1.5	-
3-K2-053 - Residents Play Room	1.5	-
3-K2-057-Store	-	0.6
3-K2-058 - En-suite 17	-	0.6
3-K2-059 - Family Room 17 (4p)	1.5	-
3-K2-060 - Family Room 2	1.5	-
3-K2-061 - En-suite 2	-	0.6
3-K2-062 - Family Room 18 (4p)	1.5	-
3-K2-062 - Family Room 18 (4p)	1.5	-
3-K2-062 - Family Room 18 (4p)	1.5	-
3-K2-065 - Family Room 19 (4p)	1.5	-
3-K2-066 - Family Room 20 (4p)	1.5	-
3-K2-067 - En-suite 20	-	0.6
3-K2-068 - En-suite 21	-	0.6
3-K2-069 - Family Room 21 (4p)	1.5	-
3-K2-071 - En-suite 22	-	0.6
3-K2-072 - Family Room 22 (4p)	1.5	-
3-K2-073 - Family Room 23 (4p)	1.5	-
3-K2-074 - En-suite 23	-	0.6
3-K2-075 - Family Room 24 (4p)	1.5	-
3-K2-076 - En-suite 24	-	0.6
3-K2-078 - Laundry	1.5	-
3-K2-080-Storage-refuse	-	0.6
3-K2-085 - Fundraisers	1.5	-
3-T1-004 - IT Node Room	1.5	-
3-T1-005 - I Node Room	1.5	-
4 - Atrium	1.5	-
4 - Plant	1.5	-
4 - Plant	1.5	-
G - Reception Area	1.5	-
G- WC	-	0.6
G-D1-0001 - Staff Room	1.5	-
G-D1-001 - Nappy Change	-	0.6
G-D1-003 - WC	-	0.6
G-D1-004 WC	-	0.6
G-D1-005 Store Room	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
G-D1-006 - DispHold	-	0.6
G-D1-007 - DSR	-	0.6
G-D1-009 - Store Plaster	-	0.6
G-D1-011 - Consult Exam	1.5	-
G-D1-012 - Consult Exam	1.5	-
G-D1-013 - Consult Exam	1.5	-
G-D1-014 - Consult Exam	1.5	-
G-D1-016 - Consult Exam Child Protection	1.5	-
G-D1-019 - Equipment General Store	-	0.6
G-D1-023 - Dirty Utility	1.5	-
G-D1-024 - Pantry	-	0.6
G-D1-031 - Clean Utility	1.5	-
G-D1-032 - Consult Exam	1.5	-
G-D1-034 - Consult Exam	1.5	-
G-D1-035 - Consult Exam	1.5	-
G-D1-036 - Consult Exam	1.5	-
G-D1-038 - Consult Exam	1.5	-
G-D1-039 - Consult Exam	1.5	-
G-D1-040 - Consult multi-disciplinary	1.5	-
G-D1-041 - Outpatient Management Office	1.5	-
G-D1-042 - Shower	-	0.6
G-D2-001 - Waiting Area	1.5	-
G-D2-003 - Cardiology Admin Office (2p)	1.5	-
G-D2-004 - WC	-	0.6
G-D2-005 - Cardio Pulmonary Exercise Lab	1.5	-
G-D2-007 - DSR	-	0.6
G-D2-010 - Respiratory Admin Office (3p)	1.5	-
G-D2-013 - Lung Function Lab	1.5	-
G-D5-002 - Laboratory	1.5	-
G-D5-003 - Clean Utility Dental St	-	0.6
G-D5-005 - Dirty Utility	1.5	-
G-D5-006 - Store	-	0.6
G-D5-007 - Recovery	1.5	-
G-D8-001 - Open Plan Office	1.5	-
G-E1-003 - Sub-Waiting Area/Supervised Play	1.5	-
G-E1-004 - WC	-	0.6
G-E1-005 - WC	-	0.6
G-E1-006 - WC	-	0.6
G-E1-007 - WC Wheelchair Access	-	0.6
G-E1-008 - DSR	-	0.6
G-E1-009 - WC	-	0.6
G-E1-010 - WC Wheelchair Access	-	0.6
G-I1-003 - Security Office	1.5	-
G-K1-004 - Office Staff SKFF (4p)	1.5	-
G-K1-005 - Office Staff SKFF (3p)	1.5	-
G-K1-006 - Waiting Area	1.5	-
G-K1-007 - Nappy Change	-	0.6
G-K1-008 - WC Wheelchair Access	-	0.6
G-K1-011 - Office Manager (2p)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
G-K1-012 - Office Kindred (3p pod)	1.5	-
G-K1-018 - WC	-	0.6
G-K1-020 - Store	-	0.6
G-K1-024 - Drop-in Office	1.5	-
G-K1-025 - WC	-	0.6
G-K1-026 - DSR	-	0.6
G-S6-020 - Atrium Clean Equipment	-	0.6
G-S6-020 - Atrium Clean Equipment	-	0.6
G-T1-006 - IT Node Room	1.5	-
G-T1-007 - IT Node Room	1.5	-

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	9677	9677
External area [m²]	10626.9	10626.9
Weather	GLA	GLA
Infiltration [m³/hm²@ 50Pa]	5	10
Average conductance [W/K]	3831.63	0
Average U-value [W/m²K]	0.36	0
Alpha value* [%]	8.18	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	Retail/Financial and Professional services
	Restaurants and Cafes/Drinking Est./Takeaways
	Offices and Workshop businesses
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
100	**Residential Inst.: Hospitals and Care Homes**
	Residential Inst.: Residential schools
	Residential Inst.: Universities and colleges
	Secure Residential Inst.
	Residential spaces
	Non-residential Inst.: Community/Day Centre
	Non-residential Inst.: Libraries, Museums, and Galleries
	Non-residential Inst.: Education
	Non-residential Inst.: Primary Health Care Building
	Non-residential Inst.: Crown and County Courts
	General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	76.51	150.54
Cooling	3.07	3.06
Auxiliary	26.05	34.94
Lighting	41.87	60.12
Hot water	81.74	45.71
Equipment*	80.71	81.63
TOTAL**	**162.99**	**294.37**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	3.57	0
Wind turbines	0	0
CHP generators	66.25	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	151.08	224.07
Primary energy* [kWh/m²]	175.26	248.76
Total emissions [kg/m²]	31.1	45.9

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	82.9	0	0.4	0	36.1	0.91	0	0.97	0
	Notional	0	0	0	0	0	0.87	0	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	2.5	263.1	0.1	27.3	68.4	0.7	2.61	0.97	4.09
	Notional	0	0	0	0	0	0.83	3.79	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	8.8	136.4	0.1	11.4	23.8	0.87	3.23	0.97	4.09
	Notional	0	0	0	0	0	0.83	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	228.7	0	1.1	0	1.5	0.91	0	0.97	0
	Notional	0	0	0	0	0	0.83	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	83	0	0.5	0	15.7	0.91	0	0.97	0
	Notional	0	0	0	0	0	0.83	0	----	----

Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type

Apache Specification Information

Scottish Building Regulations 2010 Section 6 Guidance
Carbon Dioxide Emissions, U-Values, Air Permeability, and HVAC

Project name

Block_B_Section_6_sim000

Date: Mon Aug 25 16:00:39 2014

Administrative information

Building Details

Address: Address 1, City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

Compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Agent details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

1- Predicted CO2 emission from proposed building

1.1	Calculated CO2 emission rate from notional building	72.6 KgCO2/m2.annum
1.2	Improvement factor	0.52
1.3	LZC benchmark	0.15
1.4	Target CO2 Emission Rate (TER)	37.4 KgCO2/m2.annum
1.5	Building CO2 Emission Rate (BER)	27 KgCO2/m2.annum
1.6	Are emissions from building less than or equal to the target?	BER =< TER YES

2- The performance of the building fabric and the building services systems

2.1 How do the U-values compare with Section 6 guidance?

The building does not follow guidance in Scottish Building Regulations 2010

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Limit}$	$U_{i\text{-}Calc}$	Surface where this maximum value occurs*
Wall	0.27	0.2	0.7	0.2	BDRM0000:Surf[3]
Floor	0.22	0.2	0.7	0.2	BDRM0000:Surf[0]
Roof	0.2	0.15	0.35	0.15	FLTB0001:Surf[0]
Windows**, roof windows, and rooflights	2	1.6	3.3	1.6	BDRM0000:Surf[1]
Personnel doors	2	2.19	3.3	2.19	CRCL0309:Surf[1]
Vehicle access & similar large doors	1.5	-	1.5	-	No Vehicle access doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [W/(m2K)]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [W/(m2K)]
$U_{i\text{-}Limit}$ = Limiting individual element U-values [W/(m2K)]
$U_{i\text{-}Calc}$ = Calculated individual element U-values [W/(m2K)]

* There might be more than one surface exceeding the limiting standards.
** Display windows and similar glazing are not required to meet the standard given in this table.

2.2 Air permeability

Air Permeability	This building's value
m3/(h.m2) at 50 Pa	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

2- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

4- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	-	0
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**Specific fan power [W/(l/s)]**
0.97	3.35	1.5
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system		YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	**Supply & extract SFP [W/(l/s)]**	**Exhaust SFP [W/(l/s)]**
*******Ward Areas_(NCM_Wards_Patients)******	1.5	-
*****Bedrooms_(NCM_Bedroom)*****	1.5	-
***Fault_Bedrooms_(NCM_Bedroom)	1.5	-
B-1-Clinical Waste Clean	1.5	-
B-1-Clinical Waste Dirty	1.5	-
B-2-General Works	1.5	-
B-3-Works Area	1.5	-
B-5-Confidential Waste	0.8	0.6
B-6-Kitchen Waste	0.8	0.6
B-7-White Goods	0.8	0.6
B-8-WEEE Lamp	0.8	0.6
B-9-Damaged Furniture	0.8	0.6
B-I2-002-DSR	0.8	0.6
B-I2-004-Beds Store	0.8	0.6
B-I2-005-Toys Store	0.8	0.6
B-S1-001-Prep/Cooking Area	1.5	-
B-S1-002-Prep/Cooking Area	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
B-S1-003-Diet Prep Area	1.5	-
B-S1-004-Diet Store	0.8	0.6
B-S1-005-Temp Ctr Sandwich Prep	1.5	-
B-S1-006-Bakery Prep Area	1.5	-
B-S1-007-Staff Room	1.5	-
B-S1-008-Office (5P)	1.5	-
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-009-F Staff Changing inc Shower	0.8	0.6
B-S1-010-M Staff Changing inc Shower	0.8	0.6
B-S1-010-M Staff Changing inc Shower	0.8	0.6
B-S1-010-M Staff Changing inc Shower	0.8	0.6
B-S1-011-Kitchen Equipment	0.8	0.6
B-S1-012-Pan Wash	1.5	-
B-S1-013-Returned Trolleys	0.8	0.6
B-S1-014-Trolley Wash Area	1.5	-
B-S1-015-Refuse	0.8	0.6
B-S1-017-Clean Trolley Park	0.8	0.6
B-S1-018-Disposables/Detergant	0.8	0.6
B-S1-018-DSR	0.8	0.6
B-S1-019-Raw Meat	1.5	-
B-S1-020-Veg Store	0.8	0.6
B-S1-021-Freezer	0.8	0.6
B-S1-022-Freezer	0.8	0.6
B-S1-023-Receipt Bay	0.8	0.6
B-S1-025-Dairy Store	0.8	0.6
B-S1-027-Dry Goods	0.8	0.6
B-S1-027-Weighing	1.5	-
B-S3-002-Linen Pool (Clean)	0.8	0.6
B-S3-003-Supplies Store	0.8	0.6
B-S3-004-Laundry (Microfibre)	1.5	-
B-S3-005-Linen Pool (Dirty)	0.8	0.6
B-S3-007-Cleaning Equipment Store	0.8	0.6
B-S3-008-Sanitary Bins Store	0.8	0.6
B-S3-009-DSR	0.8	0.6
B-S3-010-Bulk Equipment Store	0.8	0.6
B-S3-011-Station/Phone Booth	0.8	0.6
B-S3-012-Domestic Services Office (SP)	1.5	-
B-S3-013-Curtain Store	0.8	0.6
B-S4-001-Storage/Holding Area	0.8	0.6
B-S4-003-Mailroom	1.5	-
B-S4-004-Office (2P)	1.5	-
B-S4-005-Porters Office	1.5	-
B-S6-003-Shower	0.8	0.6
B-S6-004-Shower	0.8	0.6
B-S6-004-Workshop (NPD)	1.5	-
B-S6-005-NHSL Office	1.5	-
B-S6-006-NHSL Store	0.8	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
B-S6-009-Workshop (NHSL)	1.5	-
B-S6-010-WC (Staff)	0.8	0.6
B-S6-014-Store	0.8	0.6
B-S8-001-Trolley	0.8	0.6
B-T1-001-IT Node Room	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
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Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Bedrooms_(NCM_Bedroom)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-
Clinic_(NCM_Consulting)	1.5	-
Clinic_(NCM_Consulting)	1.5	-
Clinic_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-
Consulting_(NCM_Consulting)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Dental_(NCM_A&E_Consulting)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
Dining_(NCM_Eating/Drinking)	1.5	-
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
DSR_(NCM_Cupboard)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Ensuites_(NCM_Bathroom)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Equipment_(NCM_Cupboard)	-	0.6
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Examination_(NCM_Consulting)	1.5	-
Freezer_(NCM_Cupboard)	-	0.6
Freezer_(NCM_Cupboard)	-	0.6
Injection_(NCM_A&E_Consulting)	1.5	-
Injection_(NCM_A&E_Consulting)	1.5	-
Injection_(NCM_A&E_Consulting)	1.5	-
IPS_(NCM_IT)	1.5	-
IPS_(NCM_IT)	1.5	-
IPS_(NCM_IT)	1.5	-
IPS_(NCM_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
IT_(NCM_Office_IT)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Kitchen_(NCM_Food_Prep)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laboratory_(NCM_Laboratory)	1.5	-
Laundry_(NCM_Laundry)	1.5	-
Laundry_(NCM_Laundry)	1.5	-
Library_(NCM_Classroom)	1.5	-
Library_(NCM_Classroom)	1.5	-
Library_(NCM_Classroom)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Lounge_(NCM_Waiting)	1.5	-
Nappy Change_(NCM_Toilet)	-	0.6
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-
Office_(NCM_Office)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Pantry_(NCM_Cupboard)	-	0.6
Photocopy_(NCM_Office)	1.5	-
Photocopy_(NCM_Office)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Reception_(NCM_Reception)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Recovery_(NCM_Wards_Patients)	1.5	-
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Shower_(NCM_Bathroom)	-	0.6
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Staff_(NCM_Meeting)	1.5	-
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Store_(NCM_Cupboard)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Toilets_(NCM_Toilets)	-	0.6
Trays_(NCM_Cupboard)	-	0.6
Trays_(NCM_Cupboard)	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Utility_(NCM_Cupboards)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Waiting_(NCM_Waiting)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-

Local mechanical ventilation and exhaust

Zone	Supply & extract SFP [W/(l/s)]	Exhaust SFP [W/(l/s)]
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-
Ward Areas_(NCM_Wards_Patients)	1.5	-

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	38712	38712
External area [m²]	37745.3	37745.3
Weather	GLA	GLA
Infiltration [m³/hm²@ 50Pa]	5	10
Average conductance [W/K]	9692.19	16031.6
Average U-value [W/m²K]	0.26	0.42
Alpha value* [%]	12.81	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	Retail/Financial and Professional services
	Restaurants and Cafes/Drinking Est./Takeaways
	Offices and Workshop businesses
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
100	**Residential Inst.: Hospitals and Care Homes**
	Residential Inst.: Residential schools
	Residential Inst.: Universities and colleges
	Secure Residential Inst.
	Residential spaces
	Non-residential Inst.: Community/Day Centre
	Non-residential Inst.: Libraries, Museums, and Galleries
	Non-residential Inst.: Education
	Non-residential Inst.: Primary Health Care Building
	Non-residential Inst.: Crown and County Courts
	General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	53.42	88.93
Cooling	5.85	6.81
Auxiliary	18.02	22.48
Lighting	35.19	52.04
Hot water	71.64	65.54
Equipment*	116.18	116.18
TOTAL**	**132.5**	**235.8**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	1.79	0
Wind turbines	0	0
CHP generators	51.63	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	143.73	150.7
Primary energy* [kWh/m²]	149.27	203.5
Total emissions [kg/m²]	27	37.4

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	32.8	0	0.9	0	20.8	0.91	0	0.97	0
	Notional	293.1	0	104.4	0	29.7	0.78	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	189.3	0	3.4	0	1.6	0.91	0	0.97	0
	Notional	248.7	0	94.6	0	3.6	0.73	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	126.4	0	2.8	0	12.7	0.91	0	0.97	0
	Notional	174.2	0	62	0	18.2	0.78	0	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	10.3	245.9	0.5	20.6	26.1	0.87	3.23	0.97	4.09
	Notional	77.6	171.9	26	25.7	37.2	0.83	1.86	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	4.1	648.8	0.6	67.3	100.1	0.7	2.61	0.97	4.09
	Notional	537	520.6	179.8	78	100.2	0.83	1.86	----	----

Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type

4.2 Scottish EPC

Energy Performance Certificate for buildings other than dwellings

Energy Performance Certificate

Building Energy Performance — Scotland

Calculated asset rating using Virtual Environment v6.4.0 [ApacheSim]	Building type Hospitals/Care Home	Current rating

Excellent

C+

Very Poor

Carbon Dioxide Emissions
The number refers to the calculated carbon dioxide emissions in terms of kg per m² of floor area per year: **31**

Approximate current energy use per m² of floor area: **163** kWh/m²

Main heating fuel: Natural Gas
Building Services: Heating with Mech. Vent.
Renewable energy source: CHP generators
Electricity: Grid supplied

Carbon Dioxide is a greenhouse gas which contributes to climate change.
Less Carbon Dioxide emissions from buildings helps the environment.

Benchmarks

A building of this type built to building regulations standards current at the date of issue of this certificate would have a rating:	46	D+
Where the accompanying recommendations for the cost effective improvement of energy performance are applied, this building would have a rating:	0	??

Recommendations for the cost-effective improvement (lower cost measures) of the energy performance

Address: Block_A_Scottish_EPC_sim000, City, Postcode
Conditioned area (m²): 9676.982
Name of protocol organisation: CIBSE Certification Ltd, [ABCD123456]
Date of issue of certificate: 25 Aug 2014 (Valid for a period not exceeding 10 years)

This certificate is a requirement of EU Directive 2002/91/EC on the energy performance of buildings.

NB THIS CERTIFICATE MUST BE AFFIXED TO THE BUILDING AND NOT REMOVED UNLESS REPLACED WITH AN UPDATED VERSION AND FOR PUBLIC BUILDINGS DISPLAYED IN A PROMINENT PLACE

A43133429

Energy Performance Certificate for buildings other than dwellings

Building Energy Performance — Scotland

Energy Performance Certificate

Calculated asset rating using Virtual Environment v6.4.0 [ApacheSim]	Building type Hospitals/Care Home	Current rating

Excellent

B

Very Poor

Carbon Dioxide Emissions The number refers to the calculated carbon dioxide emissions in terms of kg per m² of floor area per year	27
Approximate current energy use per m² of floor area:	132 kWh/m²

Main heating fuel: Natural Gas
Building Services: Heating with Mech. Vent.
Renewable energy source: CHP generators
Electricity: Grid supplied

Carbon Dioxide is a greenhouse gas which contributes to climate change.
Less Carbon Dioxide emissions from buildings helps the environment.

Benchmarks

A building of this type built to building regulations standards current at the date of issue of this certificate would have a rating:	37	C+
Where the accompanying recommendations for the cost effective improvement of energy performance are applied, this building would have a rating:	0	??

Recommendations for the cost-effective improvement (lower cost measures) of the energy performance

Address: Block_B_Scottish_EPC_sim000, Address 1, Address 2, City, Postcode
Conditioned area (m²): 38711.984
Name of protocol organisation: CIBSE Certification Ltd, [ABCD123456]
Date of issue of certificate: 25 Aug 2014 (Valid for a period not exceeding 10 years)

This certificate is a requirement of EU Directive 2002/91/EC on the energy performance of buildings.

NB THIS CERTIFICATE MUST BE AFFIXED TO THE BUILDING AND NOT REMOVED UNLESS REPLACED WITH AN UPDATED VERSION AND FOR PUBLIC BUILDINGS DISPLAYED IN A PROMINENT PLACE

A43133429

4.3 Edinburgh Standards for Sustainable Buildings S1 Form

Form S1

·EDINBVRGH·
THE CITY OF EDINBURGH COUNCIL

FOR OFFICIAL USE ONLY
Reference No :
Registration Date :

Sustainability Statement Form

To accompany all applications for planning permission apart from alterations and extensions to existing domestic properties.

PLEASE REFER TO NOTES FOR GUIDANCE

Part A – must be completed for all applications for new development (pages 1 & 2)
Part B – Major applications only

1 APPLICANT'S DETAILS

NAME INTEGRATED HEALTH SOLUTIONS LOTHIAN
ADDRESS RHSC & DCN PROJECT OFFICE
56 CANAAN LANE
POSTCODE EDINBURGH EH10 4SG

2 AGENT'S DETAILS

NAME IRONSIDE FARRAR LTD
ADDRESS 111 McDONALD ROAD
EDINBURGH
POSTCODE EH7 4NW

3 CONTACT DETAILS

NAME [redacted]
TELEPHONE [redacted] E-MAIL [redacted]

4 DESCRIPTION OF PROPOSED DEVELOPMENT *please specify what is being proposed*

RE-PROVISION OF THE ROYAL HOSPITAL FOR SICK CHILDREN AND DEPARTMENT OF CLINICAL NEUROSCIENCES AT LITTLE FRANCE

DECLARATION

I hereby certify that the information given by me in this form is true and accurate to the best of my knowledge.

Signature of ~~Applicant~~ / Agent (delete as appropriate) [redacted]

Date [redacted] 09 MAY 2014

1

A43133429

Edinburgh Standards for Sustainable Building S1 Form

Part A – Carbon Reduction Declaration (all new developments apart from domestic alterations and extensions and change of use for local developments)

Question	Response
Q1: Does the proposal include any Low and Zero Carbon Equipment to meet the requirements of Section 6 (energy) of the Building Standards 2010? Yes/No (if no, please explain)	Yes.
Q2: Has the proposed equipment been clearly marked on plans submitted with the planning application? Yes/No (if no, please explain)	Yes
Please describe the type of Low and Zero Carbon equipment that the application includes.	Solar photovoltaic's Gas Combined Heat and Power (CHP)

Part B – Sustainable Development (Major Developments only)

Section 1 - Energy needs have been minimised through a combination of design for energy efficiency and the incorporation of low or zero carbon equipment

Essential Requirements

Principle	Question	Response / Notes
Achieving carbon reduction	The proposed development must meet the requirements of Section 6 of the Building Standards.	Yes. Refer to Sustainability Statement.
Developing in sustainable locations.	The proposed development should be located on brownfield land, be allocated within the ECLP or be covered by an approved Masterplan, development brief or framework.	The development is on land designated for health use, part of the Edinburgh Bio-quarter and South East Wedge Parkland masterplan.

Desirable Requirements

Principle	Question	Response / Notes
Working towards net zero carbon emissions.	Developments that go beyond the 30% carbon reduction requirements within the Building Standards will be rewarded for doing so on a sliding scale.	The development is designed to achieve Section 7 (Scottish Building Standards) Aspect Silver 1 which is a minimum 21.4% improvement on the 2010 Building Standards.
Utilising low and zero carbon technologies.	Developments that include low and zero carbon technologies to meet or go beyond the carbon reduction requirements with the Building Standards will be rewarded.	The development includes solar photovoltaic's and gas Combined Heat and Power (CHP).

Achieving sustainability accreditation/ award.	Development scores very good or equivalent.	The development is designed to achieve a BREEAM New Construction 2011 'Very Good' rating.
Promoting passive design.	Has the design of the site been evaluated for passive gain? E.g. solar, layout, access.	The development has been assessed using best practice IES thermal modelling software.
Supporting decentralised and renewable energy for excess energy generation to be supplied to the national grid.	Has provision been made for excess energy generation to be supplied to the national grid? This can include making allowances for householders / occupants to install microgeneration technologies or connect to a CHP system.	The development has the potential to export excess electrical for the gas CHP plant to the national grid.
Support sustainable transport.	Does the development provide city car club spaces, bus stops, contribute to public transport or provide electric car hook ups.	The development supports green travel through a site specific travel plan (in accordance with BREEAM) and encourages the use of sustainable transport methods with the inclusion of adjacent bus stops, a site wide cycle path, and cycle parking provision.

Section 2 - Measures to promote water conservation

Essential Requirements

Principle	Question	IHS Lothian Response
Reduce water use.	100% of devices must be water saving, i.e dual flush toilets.	The development includes low flow water fixtures throughout in accordance with BREEAM credit Wat 1 (Water consumption) Level 2 appliances and fixtures.

Desirable Requirements

Principle	Question	IHS Lothian Response
Conserve and re-use water.	Rainwater harvesting for use on site.	Rainwater harvesting is not included within the scheme.

Section 3 - Measures that will ensure that there will be no increase in rate of surface water run-off in peak conditions

Essential Requirements

Principle	Question	IHS Lothian Response
Providing attenuation of surface water.	A SUDs system or a Surface Water Management Plan must be submitted.	Discharge off site is restricted to green-field rates. The SUDs system provides attenuation for up to the 1 in 200 year storm event plus climate change (assuming 100% impermeable site area). Additional storage is provided in dished areas on surface away from the building.

Desirable Requirements

Principle	Question	IHS Lothian Response
Supporting innovation in surface run off design.	Inclusion of green roofs or living walls.	Green roofs are proposed as part of the development over the CAMHS unit and within internal courtyard roofs. In addition strategically located rain gardens provide additional ecological and bio-diversity benefits as well as attenuation and treatment of surface run-off.

Section 4 – Provision of facilities to encourage recycling

Essential Requirements

Principle	Question	IHS Lothian Response
Reduce, reuse, recycle.	Include waste management plan or confirm commitment to recycling.	Dedicated space is provided for the segregation and storage of operational recyclable waste (both within basement area and service yard areas). The facility is located to allow ease of access by building users, and for ease of collection.

Desirable Requirements

Principle	Question	IHS Lothian Response
Provide facilities to compost Household waste.	Provide facilities to home compost household waste by means of separated dedicated storage space.	N/A
Neighbourhood recycling.	Provide one local communal recycling point per 100 properties in consultation with Waste Services.	N/A

Section 5 – Maximum use of materials from local and/or sustainable sources.

Essential Requirements

Principle	Question	IHS Lothian Response
Use of sustainable materials.	Materials selected must be sustainable and evidence provided. For example, all timber must be FSC labelled or certified alternative.	The key building materials have been selected with reference to the Green Guide to Specification, and A or A+ rated materials have been adopted where practical.
Reducing the use of uPVC	An alternative to uPVC must be used for all window.	No uPVC windows are being used.
Promoting recycled materials and reducing site waste.	At least 10% of materials come from a recycled source. This can include reuse of buildings on site for construction purposes.	It is intended that greater than 10% of materials will be from a recycled source.

Desirable Requirements

Principle	Question	IHS Lothian Response
Use of sustainable timber	No tropical hardwood used on site; and, or all timber is from a local source.	No tropical hardwood is being used. It is the intention that all timber is specified to be from an FSC (or equivalent) credited source.

4.4 Energy Model Inputs Templates – Financial Close

	Room Type
1	Atrium
2	Anaesthetic
3	Bays
4	Bedroom
5	Changing Facilities
6	Circulation
7	Clinic
8	Conference Room
9	Consulting
10	DSR
11	Dental
12	Dining
13	Ensuites
14	Examination
15	Freezer (room with freezers)
16	IPS
17	IT
18	Injection
19	Interview
20	Kitchen
21	Laboratory
22	Laundry
23	Library
24	Lobby
25	Lounge
26	Meeting
27	Nappy Change
28	Office
29	Operating
30	Pantry
31	Pharmacy
32	Photocopy
33	Plant
34	Preparation
35	Reception
36	Reporting
37	Recovery
38	RIE Facilities/Link Building
39	Seminar
40	Shop
41	Scrub Up
42	Shower
43	Staff
44	Store
45	Toilets

46 Treatment
47 Utility
48 Waiting
49 Ward Areas
50 Workshop
51 X-ray/Ultrasound/Gamma/MRI/ICT

4.5 BREEAM Ene01 Compliance Checker Calculator

bre BREEAM

BREEAM New Construction 2011 Ene01 Compliance Checker

Project ID: 140827043548:30677
BREEAM Assessment Reference Number:

BRUKL purpose: E&W

Energy & CO_2 Emissions Summary		
	Actual Performance	Indicative Target
Heating + Cooling demand [MJ/m²]	140.02	141.89
Primary Energy [kWh/m²]	160.34	185.68
Total CO_2 emissions [kgCO_2/m²]	26.2	35.5

BREEAM New Construction 2011: Ene01 results	
EPR-Energy Demand:	0.0177
EPR-Primary Energy:	0.3359
EPR-CO_2 Emissions:	0.1995
Overall Energy Performance Ratio (EPR_{tc}):	0.5531
Number of BREEAM Ene01 credits achieved:	9

Minimum Standards		
Target	Minimum Requirement - CO_2 emissions	Achieved?
1 or more credits	BER better than TER	Yes
BREEAM Excellent Rating	25% reduction in CO_2 emissions	Yes
BREEAM Outstanding Rating	40% reduction in CO_2 emissions	No
15 credits	100% reduction in CO_2 emissions	No

The generated Energy & CO_2 Emissions outputs should be entered in to the separate 2011 version of the BREEAM Assessors Ene01 calculator or the Pre-Assessment Estimator.

Note:
Please make a record of the ID number (140827043548:30677) and save or print a copy of this page and keep as part of the evidence file for the BREEAM assessment of this project.

4.6 Part L2A 2010 Compliance BRUKL

BRUKL Output Document

HM Government

Compliance with England and Wales Building Regulations Part L 2010

Project name

Block_A_Part_L_sim000

As designed

Date: Mon Aug 25 22:15:54 2014

Administrative information

Building Details

Address: City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

BRUKL compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Criterion 1: The calculated CO_2 emission rate for the building should not exceed the target

1.1	CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	39
1.2	Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	39
1.3	Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	30.1
1.4	Are emissions from the building less than or equal to the target?	BER =< TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

2.a Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.2	0.2	TEMP0018:Surf[4]
Floor	0.25	0.2	0.2	1___0000:Surf[0]
Roof	0.25	0.15	0.15	3CRR0002:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.83	2	3TRM0000:Surf[0]
Personnel doors	2.2	-	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]
$U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

* There might be more than one surface where the maximum U-value occurs.
** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.
*** Display windows and similar glazing are excluded from the U-value check.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

2- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	-	0	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

4- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	Cooling nominal efficiency	SFP [W/(l/s)]	HR seasonal efficiency
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
1 - Office	1.5	-	-
1 - WC	-	-	0.6
1-D1-001 - DSR	-	-	0.6
1-D1-002 - Consult Exam	1.5	-	-
1-D1-004 - Linen	1.5	-	-
1-D1-005 - Consult Exam	1.5	-	-
1-D1-010 - Dirty Utility	1.5	-	-
1-D1-011 - WC	-	-	0.6
1-D1-012 - Shower Room	-	-	0.6
1-D1-013 - Clean Utility	1.5	-	-
1-D1-014 - Consult Exam	1.5	-	-
1-D1-016 - Consult multi-disciplinary	1.5	-	-
1-D1-017 - Consult Exam	1.5	-	-
1-D1-018 - Consult Exam Ophthalmology	1.5	-	-
1-D1-019 - Consult Exam ENT	1.5	-	-
1-D1-020 - Consult Exam Cleft	1.5	-	-
1-D1-021 - Consult Exam Cleft	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
1-D1-022 - Consult Exam ENT	1.5	-	-
1-D1-023 - Consult Exam ENT	1.5	-	-
1-D1-027 - Sub-waiting play Nurse Base	1.5	-	-
1-D1-027 Sub waiting play/Nurse Bay	1.5	-	-
1-D1-030 - Nappy Change	-	-	0.6
1-D1-031 - Equipment General Store	-	-	0.6
1-D1-032 - WC	-	-	0.6
1-D1-038 - WC	-	-	0.6
1-D3-004 - DSR	-	-	0.6
1-D3-006 - CE Orthoptic	1.5	-	-
1-D3-007 - CE Orthoptic	1.5	-	-
1-D3-008 - CE Orthoptic	1.5	-	-
1-D3-009 - CE Orthoptic	1.5	-	-
1-D4-004 - Staff Office BP	1.5	-	-
1-D4-005 - Testing Clinic Room	1.5	-	-
1-D4-007 - Testing Clinic Room	1.5	-	-
1-D4-009 - Waiting Area	1.5	-	-
1-D6-001 - Office	1.5	-	-
1-D6-004 - Office	1.5	-	-
1-D6-006 - WC	-	-	0.6
1-D6-007 - WC	-	-	0.6
1-D6-009 - Office	1.5	-	-
1-D6-010 - Office	1.5	-	-
1-D6-011 - TIP St	-	-	0.6
1-D6-015 - Physio St	-	-	0.6
1-D6-016 - Management Office (4p)	1.5	-	-
1-D6-017 - AC Staff Office (9p)	1.5	-	-
1-D6-018 - DSR	-	-	0.6
1-D6-020 - Dietetic Clinic Room	1.5	-	-
1-D6-021 - Dietetic Clinic Room	1.5	-	-
1-D6-023 - Reception (2p)	1.5	-	-
1-D6-024 - WC Wheelchair	-	-	0.6
1-D6-026 - Linen	1.5	-	-
1-D6-031 - Dietetic Store	-	-	0.6
1-D6-037 - Physio Store	-	-	0.6
1-D6-038 - OT St	-	-	0.6
1-D6-041 - Store - OT	-	-	0.6
1-D6-042 - Pantry	-	-	0.6
1-D6-043 - Physio St	-	-	0.6
1-D6-044 - WC	-	-	0.6
1-D6-049 - Chg	1.5	-	-
1-D6-050 - Physio St	-	-	0.6
1-D6-051 - Chg	1.5	-	-
1-D6-052 - Physio St	-	-	0.6
1-D6-057 - WC Assist Chg	-	-	0.6
1-D7-001 - Assisted Bathroom	-	-	0.6
1-D7-002 - Dressings Doppler Store	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
1-D7-005 - Office	1.5	-	-
1-T1-003 - IT Node Room	1.5	-	-
1-T1-004 - IT Node Room	1.5	-	-
2 - Office	1.5	-	-
2 - Office	1.5	-	-
2-R1-001 - Staff Room	1.5	-	-
2-R1-002 - Office	1.5	-	-
2-R1-004 - Office	1.5	-	-
2-R1-007 - DSR	-	-	0.6
2-R1-008 - Store	-	-	0.6
2-R1-009 - Printer Photocopier Room	1.5	-	-
2-R1-010 - Office	1.5	-	-
2-R1-011 - Office	1.5	-	-
2-R1-012 - Office	1.5	-	-
2-R1-013 - WC	-	-	0.6
2-R1-014 - WC	-	-	0.6
2-R1-016 - WC	-	-	0.6
2-R1-017 - Office	1.5	-	-
2-R1-018 - Office	1.5	-	-
2-R1-019 - Office	1.5	-	-
2-R1-020 - Printed Photocopier Room	1.5	-	-
2-R1-024 - Office	1.5	-	-
2-R1-025 - Office	1.5	-	-
2-R1-029 - Office	1.5	-	-
2-R1-030 - Office	1.5	-	-
2-R1-031 - Office	1.5	-	-
2-R1-032 - WC Wheelcahir Access	-	-	0.6
2-R1-033 - WC	-	-	0.6
2-R1-034 - DSR	-	-	0.6
2-R1-035 - Printer Photocopier Room	1.5	-	-
2-R1-037 - Store	-	-	0.6
2-R1-038 - WC	-	-	0.6
2-R1-039 - Office	1.5	-	-
2-R1-040 - Office	1.5	-	-
2-R1-041 - Office	1.5	-	-
2-R1-042 - Office	1.5	-	-
2-R1-043 - Clinical Store	-	-	0.6
2-R1-044 - Printer Photocopier Room	1.5	-	-
2-R1-047 - Store	-	-	0.6
2-R1-048 - Office	1.5	-	-
2-R1-049 - Open Plan Desk Area	1.5	-	-
2-R1-049 - Open Plan Desk Area	1.5	-	-
2-R1-051 - Open Plan Desk Area	1.5	-	-
2-R1-052 - Open Plan Desk Area	1.5	-	-
2-R1-052 - Open Plan Desk Area	1.5	-	-
2-R1-052 - Open Plan Desk Area	1.5	-	-
2-R1-053 - Open Plan Desk Area	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
2-R1-054 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-R1-055 - Open Plan Desk Area	1.5	-	-
2-T1-005 - IT Node Room	1.5	-	-
2-T1-006 - IT Node Room	1.5	-	-
3-H3-001 - Workshop/Tutorial Room 3	1.5	-	-
3-H3-002 - Control Room	1.5	-	-
3-H3-003 - Storage	-	-	0.6
3-H3-004 - Workshop/Tutorial Room 2	1.5	-	-
3-H3-006 - WC	-	-	0.6
3-H3-007 - WC	-	-	0.6
3-H3-008 - WC	-	-	0.6
3-H3-010 - Workshop/Tutorial Room 1	1.5	-	-
3-H3-012 - DSR	-	-	0.6
3-H3-013 - Manual Handling Health and Safety	1.5	-	-
3-H3-014 - Practice Based Educators Office	1.5	-	-
3-H3-018 - Management/Admin Office	1.5	-	-
3-H3-019 - Computer Games	1.5	-	-
3-H3-020 - Lockers	-	-	0.6
3-K2-002 - Reception	1.5	-	-
3-K2-003 - Office (1p)	1.5	-	-
3-K2-004 - WC	-	-	0.6
3-K2-005 - WC	-	-	0.6
3-K2-006 - Lounge non-residents	1.5	-	-
3-K2-007 - WC	-	-	0.6
3-K2-008 - Family Room 1	1.5	-	-
3-K2-009 - En-suite 1	-	-	0.6
3-K2-010 - Family Room 3	1.5	-	-
3-K2-011 - En-suite 3	-	-	0.6
3-K2-012 - Family Room 2	1.5	-	-
3-K2-013 - En-suite 2	-	-	0.6
3-K2-014 - Family Room 4	1.5	-	-
3-K2-015 - En-suite 4	-	-	0.6
3-K2-016 - Family Room 5	1.5	-	-
3-K2-017 - En-suite5	-	-	0.6
3-K2-019 - Family Room (Acc 1)	1.5	-	-
3-K2-020 - En-suite Ac 1	-	-	0.6
3-K2-021 - Family Room 6	1.5	-	-
3-K2-022 - En-suite 6	-	-	0.6
3-K2-023 - Family Room 7	1.5	-	-
3-K2-024 - En-suite 7	-	-	0.6
3-K2-025 - Family Room8 (4p)	1.5	-	-
3-K2-026 - En-suite 8	-	-	0.6
3-K2-027 - Family Room 9	1.5	-	-
3-K2-029 - Family Room 10	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
3-K2-030 - En-suite 10	-	-	0.6
3-K2-032 - Family Room 11	1.5	-	-
3-K2-033 - En-suite 11	-	-	0.6
3-K2-033 - En-suite 11	-	-	0.6
3-K2-035 - Family Room 12	1.5	-	-
3-K2-036 - En-suite 12	-	-	0.6
3-K2-037 - Family Room 13	1.5	-	-
3-K2-038 - En-suite 13	-	-	0.6
3-K2-039 - Store	-	-	0.6
3-K2-040 - Family Room 14	1.5	-	-
3-K2-041 - En-suite 14	-	-	0.6
3-K2-042 - Laundry	1.5	-	-
3-K2-043 - En-suite 15	-	-	0.6
3-K2-044 - Family Room 15	1.5	-	-
3-K2-045 - Family Room 16 (4p)	1.5	-	-
3-K2-046 - En-suite 16	-	-	0.6
3-K2-047 - DSR	-	-	0.6
3-K2-048 - WC	-	-	0.6
3-K2-050 - Kitchen/Dining Room	1.5	-	-
3-K2-051 - Residents Day Room	1.5	-	-
3-K2-053 - Residents Play Room	1.5	-	-
3-K2-057-Store	-	-	0.6
3-K2-058 - En-suite 17	-	-	0.6
3-K2-059 - Family Room 17 (4p)	1.5	-	-
3-K2-060 - Family Room 2	1.5	-	-
3-K2-061 - En-suite 2	-	-	0.6
3-K2-062 - Family Room 18 (4p)	1.5	-	-
3-K2-062 - Family Room 18 (4p)	1.5	-	-
3-K2-062 - Family Room 18 (4p)	1.5	-	-
3-K2-065 - Family Room 19 (4p)	1.5	-	-
3-K2-066 - Family Room 20 (4p)	1.5	-	-
3-K2-067 - En-suite 20	-	-	0.6
3-K2-068 - En-suite 21	-	-	0.6
3-K2-069 - Family Room 21 (4p)	1.5	-	-
3-K2-071 - En-suite 22	-	-	0.6
3-K2-072 - Family Room 22 (4p)	1.5	-	-
3-K2-073 - Family Room 23 (4p)	1.5	-	-
3-K2-074 - En-suite 23	-	-	0.6
3-K2-075 - Family Room 24 (4p)	1.5	-	-
3-K2-076 - En-suite 24	-	-	0.6
3-K2-078 - Laundry	1.5	-	-
3-K2-080-Storage-refuse	-	-	0.6
3-K2-085 - Fundraisers	1.5	-	-
3-T1-004 - IT Node Room	1.5	-	-
3-T1-005 - I Node Room	1.5	-	-
4 - Atrium	1.5	-	-
4 - Plant	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
4 - Plant	1.5	-	-
G - Reception Area	1.5	-	-
G- WC	-	-	0.6
G-D1-0001 - Staff Room	1.5	-	-
G-D1-001 - Nappy Change	-	-	0.6
G-D1-003 - WC	-	-	0.6
G-D1-004 WC	-	-	0.6
G-D1-005 Store Room	-	-	0.6
G-D1-006 - DispHold	-	-	0.6
G-D1-007 - DSR	-	-	0.6
G-D1-009 - Store Plaster	-	-	0.6
G-D1-011 - Consult Exam	1.5	-	-
G-D1-012 - Consult Exam	1.5	-	-
G-D1-013 - Consult Exam	1.5	-	-
G-D1-014 - Consult Exam	1.5	-	-
G-D1-016 - Consult Exam Child Protection	1.5	-	-
G-D1-019 - Equipment General Store	-	-	0.6
G-D1-023 - Dirty Utility	1.5	-	-
G-D1-024 - Pantry	-	-	0.6
G-D1-031 - Clean Utility	1.5	-	-
G-D1-032 - Consult Exam	1.5	-	-
G-D1-034 - Consult Exam	1.5	-	-
G-D1-035 - Consult Exam	1.5	-	-
G-D1-036 - Consult Exam	1.5	-	-
G-D1-038 - Consult Exam	1.5	-	-
G-D1-039 - Consult Exam	1.5	-	-
G-D1-040 - Consult multi-disciplinary	1.5	-	-
G-D1-041 - Outpatient Management Office	1.5	-	-
G-D1-042 - Shower	-	-	0.6
G-D2-001 - Waiting Area	1.5	-	-
G-D2-003 - Cardiology Admin Office (2p)	1.5	-	-
G-D2-004 - WC	-	-	0.6
G-D2-005 - Cardio Pulmonary Exercise Lab	1.5	-	-
G-D2-007 - DSR	-	-	0.6
G-D2-010 - Respiratory Admin Office (3p)	1.5	-	-
G-D2-013 - Lung Function Lab	1.5	-	-
G-D5-002 - Laboratory	1.5	-	-
G-D5-003 - Clean Utility Dental St	-	-	0.6
G-D5-005 - Dirty Utility	1.5	-	-
G-D5-006 - Store	-	-	0.6
G-D5-007 - Recovery	1.5	-	-
G-D8-001 - Open Plan Office	1.5	-	-
G-E1-003 - Sub-Waiting Area/Supervised Play	1.5	-	-
G-E1-004 - WC	-	-	0.6
G-E1-005 - WC	-	-	0.6
G-E1-006 - WC	-	-	0.6
G-E1-007 - WC Wheelchair Access		-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
G-E1-008 - DSR	-	-	0.6
G-E1-009 - WC	-	-	0.6
G-E1-010 - WC Wheelchair Access		-	0.6
G-I1-003 - Security Office	1.5	-	-
G-K1-004 - Office Staff SKFF (4p)	1.5	-	-
G-K1-005 - Office Staff SKFF (3p)	1.5	-	-
G-K1-006 - Waiting Area	1.5	-	-
G-K1-007 - Nappy Change	-	-	0.6
G-K1-008 - WC Wheelchair Access		-	0.6
G-K1-011 - Office Manager (2p)	1.5	-	-
G-K1-012 - Office Kindred (3p pod)	1.5	-	-
G-K1-018 - WC	-	-	0.6
G-K1-020 - Store	-	-	0.6
G-K1-024 - Drop-in Office	1.5	-	-
G-K1-025 - WC	-	-	0.6
G-K1-026 - DSR	-	-	0.6
G-S6-020 - Atrium Clean Equipment		-	0.6
G-S6-020 - Atrium Clean Equipment		-	0.6
G-T1-006 - IT Node Room	1.5	-	-
G-T1-007 - IT Node Room	1.5	-	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1 - Corridor	30	-
1 - Corridor	10	-
1 - Corridor	80	-
1 - Office	700	-
1 - Walkway	130	-
1 - WC	40	-
1-D1-001 - DSR	90	-
1-D1-002 - Consult Exam	170	-
1-D1-003 - Treatment Room	290	-
1-D1-004 - Linen	30	-
1-D1-005 - Consult Exam	170	-
1-D1-007 - CorridorL01	270	-
1-D1-007 - CorridorL01	30	-
1-D1-007 - CorridorL01	20	-
1-D1-008 - Treatment Room	290	-
1-D1-010 - Dirty Utility	110	-
1-D1-011 - WC	40	-
1-D1-012 - Shower Room	20	-
1-D1-013 - Clean Utility	80	-
1-D1-014 - Consult Exam	170	-
1-D1-015 - Play Therapy	320	-
1-D1-016 - Consult multi-disciplinary	250	-
1-D1-017 - Consult Exam	170	-
1-D1-018 - Consult Exam Ophthalmology	200	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1-D1-019 - Consult Exam ENT	180	-
1-D1-020 - Consult Exam Cleft	190	-
1-D1-021 - Consult Exam Cleft	190	-
1-D1-022 - Consult Exam ENT	180	-
1-D1-023 - Consult Exam ENT	180	-
1-D1-026 - Infant Measuring Room	110	-
1-D1-027 - Sub-waiting play Nurse Base	970	15
1-D1-027 Sub waiting play/Nurse Bay	1510	15
1-D1-029 - Baby Infant Feed	80	-
1-D1-030 - Nappy Change	40	-
1-D1-031 - Equipment General Store	30	-
1-D1-032 - WC	40	-
1-D1-033 - Phlebotomy Room	160	-
1-D1-034 - Hoist Bay	50	-
1-D1-035 - Disp Hold	90	-
1-D1-036 - Physical Measurement	80	-
1-D1-038 - WC	30	-
1-D3-002 - Parking Bay	20	-
1-D3-004 - DSR	90	-
1-D3-005 - Fields Test	220	-
1-D3-006 - CE Orthoptic	170	-
1-D3-007 - CE Orthoptic	170	-
1-D3-008 - CE Orthoptic	170	-
1-D3-009 - CE Orthoptic	170	-
1-D4-002 - ABR Room	280	-
1-D4-003 - Test Room	290	-
1-D4-004 - Staff Office BP	140	-
1-D4-005 - Testing Clinic Room	220	-
1-D4-006 - Obs Control	200	-
1-D4-007 - Testing Clinic Room	220	-
1-D4-008 - Obs Control	200	-
1-D4-009 - Waiting Area	140	15
1-D4-010 - Work Room	240	-
1-D4-012 - Mould Room	260	-
1-D4-013 - Mould Room	160	-
1-D6-001 - Office	20	-
1-D6-003 - Meeting Room (6p)	90	-
1-D6-004 - Office	20	-
1-D6-005 - Meeting Room (4p)	60	-
1-D6-006 - WC	20	-
1-D6-007 - WC	20	-
1-D6-009 - Office	20	-
1-D6-010 - Office	20	-
1-D6-011 - TIP St	20	-
1-D6-015 - Physio St	150	-
1-D6-016 - Management Office (4p)	90	-
1-D6-017 - AC Staff Office (9p)	160	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1-D6-018 - DSR	90	-
1-D6-019 - Equipment Decontamination	180	-
1-D6-020 - Dietetic Clinic Room	120	-
1-D6-021 - Dietetic Clinic Room	120	-
1-D6-023 - Reception (2p)	70	15
1-D6-024 - WC Wheelchair	40	-
1-D6-025 - Infant Measuring Room	110	-
1-D6-026 - Linen	20	-
1-D6-027 - Treament Room OT	270	-
1-D6-028 - Treatment Room Physio	260	-
1-D6-029 - Treatment Room Physio	270	-
1-D6-030 - Treatment Room DF	270	-
1-D6-031 - Dietetic Store	10	-
1-D6-032 - Treatment Room DF	360	-
1-D6-034 - Corridor	20	-
1-D6-034 - Corridor	330	-
1-D6-034 - Corridor	20	-
1-D6-035 - Treatment Room DF	270	-
1-D6-036 - Treatment Room OT equipment	360	-
1-D6-037 - Physio Store	30	-
1-D6-038 - OT St	10	-
1-D6-039 - Rehab Room Physio	520	-
1-D6-040 - Splinting Casting Room	320	-
1-D6-041 - Store - OT	70	-
1-D6-042 - Pantry	90	-
1-D6-043 - Physio St	20	-
1-D6-044 - WC	30	-
1-D6-046 - Rehab Room OT	520	-
1-D6-048 - Rehab Room Physio	520	-
1-D6-049 - Chg	10	-
1-D6-050 - Physio St	10	-
1-D6-051 - Chg	10	-
1-D6-052 - Physio St	10	-
1-D6-053 - Rehab Room Physio	530	-
1-D6-054 - Rehab Room	680	-
1-D6-056 - Corridor	190	-
1-D6-056 - Corridor	10	-
1-D6-057 - WC Assist Chg	90	-
1-D7-001 - Assisted Bathroom	100	-
1-D7-002 - Dressings Doppler Store	10	-
1-D7-003 - Dressing Room	280	-
1-D7-004 - Sluice	120	-
1-D7-005 - Office	20	-
1-D7-006 - Dressing Room	280	-
1-D7-007 - Disp Hold	180	-
1-D7-008 - Corridor	230	-
1-FM-001 Lift	60	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
1-T1-003 - IT Node Room	90	-
1-T1-004 - IT Node Room	100	-
1-Z1-005 - Stair 05	100	-
1-Z1-006 - Stair 06	100	-
1-Z1-007 - Stair 07	100	-
1-Z1-009 - Stair 05 Lobby	20	-
1-Z1-010 - Stair 06 Lobby	20	-
1-Z1-011 - Stair07 Lobby	30	-
2 - Connecting corridor	100	-
2 - Corridor	30	-
2 - Corridor	30	-
2 - Office	620	-
2 - Office	370	-
2- Corridor	20	-
2-COR-001 - Corridor	100	-
2-COR-010 - Corridor	80	-
2-PA002 - Lifts	60	-
2-R1 - Corridor	210	-
2-R1-001 - Staff Room	250	-
2-R1-002 - Office	20	-
2-R1-003 - Meeting Room (4p)	60	-
2-R1-004 - Office	20	-
2-R1-006 - Meeting Room (6p)	90	-
2-R1-007 - DSR	120	-
2-R1-008 - Store	10	-
2-R1-009 - Printer Photocopier Room	40	-
2-R1-010 - Office	20	-
2-R1-011 - Office	20	-
2-R1-012 - Office	20	-
2-R1-013 - WC	130	-
2-R1-014 - WC	130	-
2-R1-015 - Meeting Room (6p)	90	-
2-R1-016 - WC	40	-
2-R1-017 - Office	20	-
2-R1-018 - Office	20	-
2-R1-019 - Office	20	-
2-R1-020 - Printed Photocopier Room	30	-
2-R1-021 - Beverage Bay	30	-
2-R1-022-Disp Hold	40	-
2-R1-023 - Meeting Room (4p)	70	-
2-R1-024 - Office	20	-
2-R1-025 - Office	20	-
2-R1-026 - Beverage Area	40	-
2-R1-027 - Meeting Room (4p)	70	-
2-R1-028 - Meeting Room (4p)	70	-
2-R1-029 - Office	20	-
2-R1-030 - Office	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
2-R1-031 - Office	20	-
2-R1-032 - WC Wheelcahir Access	40	-
2-R1-033 - WC	120	-
2-R1-034 - DSR	90	-
2-R1-035 - Printer Photocopier Room	30	-
2-R1-036 - Meeting Room (4p)	60	-
2-R1-037 - Store	20	-
2-R1-038 - WC	150	-
2-R1-039 - Office	20	-
2-R1-040 - Office	20	-
2-R1-041 - Office	20	-
2-R1-042 - Office	20	-
2-R1-043 - Clinical Store	20	-
2-R1-044 - Printer Photocopier Room	30	-
2-R1-045 - Meeting Room (4p)	60	-
2-R1-046 - Meeting Room (4p)	100	-
2-R1-047 - Store	10	-
2-R1-048 - Office	20	-
2-R1-049 - Open Plan Desk Area	330	-
2-R1-049 - Open Plan Desk Area	660	-
2-R1-051 - Open Plan Desk Area	400	-
2-R1-052 - Open Plan Desk Area	390	-
2-R1-052 - Open Plan Desk Area	300	-
2-R1-052 - Open Plan Desk Area	200	-
2-R1-053 - Open Plan Desk Area	370	-
2-R1-054 - Open Plan Desk Area	600	-
2-R1-055 - Open Plan Desk Area	300	-
2-R1-055 - Open Plan Desk Area	410	-
2-R1-055 - Open Plan Desk Area	150	-
2-R1-055 - Open Plan Desk Area	170	-
2-R1-057 - Corridor	220	-
2-R1-058 - Corridor	130	-
2-R1-059 - Corridor	70	-
2-R1-061 - Corridor	100	-
2-R1-062 - Corridor	110	-
2-T1-005 - IT Node Room	100	-
2-T1-006 - IT Node Room	100	-
2-Z1-005 - Stair 05	100	-
2-Z1-006 - Stair 06	100	-
2-Z1-007-Stair 07	100	-
2-Z1-007-Stair 07	130	-
2-Z1-009 - Stair 05 - Lobby	20	-
2-Z1-010 - Stair 06 Lobby	20	-
2-Z1-011 - Stair 07 Lobby	30	-
3 - Corridor	30	-
3 - Corridor	650	-
3 - Corridor	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
3 - Lifts	60	-
3-COR-001 - Corridor	100	-
3-COR-010 - Corridor	80	-
3-COR-015 - Lift Lobby	130	-
3-H3-001 - Workshop/Tutorial Room 3	490	-
3-H3-002 - Control Room	90	-
3-H3-003 - Storage	40	-
3-H3-004 - Workshop/Tutorial Room 2	510	-
3-H3-005 - Scenario Room	340	-
3-H3-006 - WC	40	-
3-H3-007 - WC	30	-
3-H3-008 - WC	30	-
3-H3-009 - Corridor	100	-
3-H3-010 - Workshop/Tutorial Room 1	500	-
3-H3-011-Beverage Bay	30	-
3-H3-012 - DSR	90	-
3-H3-013 - Manual Handling Health and Safety	70	-
3-H3-014 - Practice Based Educators Office	90	-
3-H3-015 - Meeting Room	200	-
3-H3-016 - Seminar Room	320	-
3-H3-018 - Management/Admin Office	70	-
3-H3-019 - Computer Games	60	-
3-H3-020 - Lockers	30	-
3-H3-021 - Corridor	120	-
3-H3-021 - Corridor	20	-
3-K2-002 - Reception	70	15
3-K2-003 - Office (1p)	40	-
3-K2-004 - WC	30	-
3-K2-005 - WC	30	-
3-K2-006 - Lounge non-residents	400	15
3-K2-007 - WC	40	-
3-K2-008 - Family Room 1	90	-
3-K2-009 - En-suite 1	40	-
3-K2-010 - Family Room 3	90	-
3-K2-011 - En-suite 3	40	-
3-K2-012 - Family Room 2	90	-
3-K2-013 - En-suite 2	40	-
3-K2-014 - Family Room 4	90	-
3-K2-015 - En-suite 4	40	-
3-K2-016 - Family Room 5	90	-
3-K2-017 - En-suite5	40	-
3-K2-018 - Corridor	270	-
3-K2-019 - Family Room (Acc 1)	110	-
3-K2-020 - En-suite Ac 1	40	-
3-K2-021 - Family Room 6	90	-
3-K2-022 - En-suite 6	40	-
3-K2-023 - Family Room 7	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
3-K2-024 - En-suite 7	40	-
3-K2-025 - Family Room8 (4p)	90	-
3-K2-026 - En-suite 8	40	-
3-K2-027 - Family Room 9	90	-
3-K2-029 - Family Room 10	90	-
3-K2-030 - En-suite 10	40	-
3-K2-032 - Family Room 11	90	-
3-K2-033 - En-suite 11	40	-
3-K2-033 - En-suite 11	40	-
3-K2-035 - Family Room 12	90	-
3-K2-036 - En-suite 12	40	-
3-K2-037 - Family Room 13	90	-
3-K2-038 - En-suite 13	40	-
3-K2-039 - Store	60	-
3-K2-040 - Family Room 14	90	-
3-K2-041 - En-suite 14	40	-
3-K2-042 - Laundry	170	-
3-K2-043 - En-suite 15	40	-
3-K2-044 - Family Room 15	90	-
3-K2-045 - Family Room 16 (4p)	90	-
3-K2-046 - En-suite 16	40	-
3-K2-047 - DSR	90	-
3-K2-048 - WC	40	-
3-K2-049 - Corridor	270	-
3-K2-050 - Kitchen/Dining Room	920	-
3-K2-051 - Residents Day Room	80	-
3-K2-052 - Corridor	220	-
3-K2-053 - Residents Play Room	90	-
3-K2-056 - Corridor	110	-
3-K2-057-Store	40	-
3-K2-058 - En-suite 17	40	-
3-K2-059 - Family Room 17 (4p)	90	-
3-K2-060 - Family Room 2	110	-
3-K2-061 - En-suite 2	40	-
3-K2-062 - Family Room 18 (4p)	80	-
3-K2-062 - Family Room 18 (4p)	30	-
3-K2-062 - Family Room 18 (4p)	30	-
3-K2-065 - Family Room 19 (4p)	90	-
3-K2-066 - Family Room 20 (4p)	90	-
3-K2-067 - En-suite 20	40	-
3-K2-068 - En-suite 21	40	-
3-K2-069 - Family Room 21 (4p)	90	-
3-K2-071 - En-suite 22	40	-
3-K2-072 - Family Room 22 (4p)	90	-
3-K2-073 - Family Room 23 (4p)	100	-
3-K2-074 - En-suite 23	40	-
3-K2-075 - Family Room 24 (4p)	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
3-K2-076 - En-suite 24	40	-
3-K2-078 - Laundry	170	-
3-K2-080-Storage-refuse	30	-
3-K2-085 - Fundraisers	50	-
3-T1-004 - IT Node Room	100	-
3-T1-005 - I Node Room	100	-
3-Z1-005 - Stair 05	100	-
3-Z1-005 - Stair 05 Lobby	20	-
3-Z1-006 - Stair 06	100	-
3-Z1-011 - Stair 07 Lobby	30	-
4 - Atrium	770	-
4 - Plant	3740	-
4 - Plant	3840	-
G - Connecting zone	120	-
G - Corridor	60	-
G - Main Waiting Area	470	-
G - Main Waiting Area	850	-
G - Reception Area	1450	15
G- WC	50	-
G-CO-M002 - Corridor	50	-
G-D1-0001 - Staff Room	500	-
G-D1-001 - Nappy Change	40	-
G-D1-002 - Baby Infant Feed	80	-
G-D1-003 - WC	40	-
G-D1-004 WC	30	-
G-D1-005 Store Room	20	-
G-D1-006 - DispHold	30	-
G-D1-007 - DSR	90	-
G-D1-008 - Plaster Suite 3 bays	710	-
G-D1-009 - Store Plaster	20	-
G-D1-010 - Orthotics Workshop	300	-
G-D1-011 - Consult Exam	170	-
G-D1-012 - Consult Exam	170	-
G-D1-013 - Consult Exam	170	-
G-D1-014 - Consult Exam	170	-
G-D1-016 - Consult Exam Child Protection	160	-
G-D1-019 - Equipment General Store	20	-
G-D1-020 - Phlebotomy	150	-
G-D1-021 - Child Protection Room	430	-
G-D1-023 - Dirty Utility	110	-
G-D1-024 - Pantry	80	-
G-D1-025 - Physical Measurement	70	-
G-D1-028 - Infant Measuring Room	110	-
G-D1-031 - Clean Utility	90	-
G-D1-032 - Consult Exam	170	-
G-D1-033 - Treatment Room	280	-
G-D1-034 - Consult Exam	160	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
G-D1-035 - Consult Exam	160	-
G-D1-036 - Consult Exam	160	-
G-D1-037 - Meeting Room	150	-
G-D1-038 - Consult Exam	170	-
G-D1-039 - Consult Exam	160	-
G-D1-040 - Consult multi-disciplinary	260	-
G-D1-041 - Outpatient Management Office	40	-
G-D1-042 - Shower	20	-
G-D2-001 - Waiting Area	190	15
G-D2-002 - Corridor	30	-
G-D2-002 - Corridor	340	-
G-D2-003 - Cardiology Admin Office (2p)	100	-
G-D2-004 - WC	30	-
G-D2-005 - Cardio Pulmonary Exercise Lab	280	-
G-D2-006 - Echocardiography Room	360	-
G-D2-007 - DSR	90	-
G-D2-009 - ECG Procedure Room	220	-
G-D2-010 - Respiratory Admin Office (3p)	70	-
G-D2-012 - Domiciliary Sleep Studies	220	-
G-D2-013 - Lung Function Lab	360	-
G-D2-014 - Exercise Tolerance Test Room	370	-
G-D2-015 - Physical Measurement	70	-
G-D5-002 - Laboratory	130	-
G-D5-003 - Clean Utility Dental St	70	-
G-D5-004 - Surgery multi-disciplinary	1210	-
G-D5-005 - Dirty Utility	110	-
G-D5-006 - Store	20	-
G-D5-007 - Recovery	40	-
G-D5-008 - Surgery	1020	-
G-D5-009 - Surgery	1040	-
G-D5-010 - Surgery	1030	-
G-D5-011 - Corridor	50	-
G-D8-001 - Open Plan Office	210	-
G-D8-002 - Interview Room	120	-
G-D8-004 - Corridor	40	-
G-E1-003 - Sub-Waiting Area/Supervised Play	190	15
G-E1-004 - WC	40	-
G-E1-005 - WC	50	-
G-E1-006 - WC	70	-
G-E1-007 - WC Wheelchair Access	40	-
G-E1-008 - DSR	90	-
G-E1-009 - WC	30	-
G-E1-010 - WC Wheelchair Access	40	-
G-FM-001 - Lift	20	-
G-I1-002 - Wheelchair Bay	40	-
G-I1-003 - Security Office	60	-
G-I1-006 - Retail Shop	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
G-I1-007 - Catering Shop	80	-
G-K1-001 - Meeting Room	150	-
G-K1-002 - Meeting Room	150	-
G-K1-003 - Office Family Support (3p)	150	-
G-K1-004 - Office Staff SKFF (4p)	90	-
G-K1-005 - Office Staff SKFF (3p)	70	-
G-K1-006 - Waiting Area	180	15
G-K1-007 - Nappy Change	40	-
G-K1-008 - WC Wheelchair Access	40	-
G-K1-009 - Corridor	440	-
G-K1-010 - Interview Room	90	-
G-K1-011 - Office Manager (2p)	50	-
G-K1-012 - Office Kindred (3p pod)	80	-
G-K1-015 - Interview Room	90	-
G-K1-016 - Drop-in Lounge/Beverage Bay	360	-
G-K1-017 - Dropin Multi-purpose room	690	-
G-K1-018 - WC	30	-
G-K1-019 - Beverage Bay	60	-
G-K1-020 - Store	80	-
G-K1-021 - Complementary Therapy Room	270	-
G-K1-022 - Radio Lollipop Lobby	60	-
G-K1-023 - Wheelchair Bay	50	-
G-K1-024 - Drop-in Office	40	-
G-K1-025 - WC	40	-
G-K1-026 - DSR	90	-
G-K1-028 - Corridor	40	-
G-PA-001 - Lift	20	-
G-PA-002 - Lift	20	-
G-S6-020 - Atrium Clean Equipment	20	-
G-S6-020 - Atrium Clean Equipment	40	-
G-T1-006 - IT Node Room	110	-
G-T1-007 - IT Node Room	110	-
G-Z1-005 - Stairs	100	-
G-Z1-006 - Stair 06	100	-
G-Z1-007 - Stair 07	100	-
G-Z1-009 - Lobby	20	-
G-Z1-010 - Lobby	20	-
L03: 3-Z1-010 Stair 06 Lobby	20	-

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
1 - Office	NO (-59.3%)	NO
1-D1-002 - Consult Exam	NO (-85.7%)	NO
1-D1-003 - Treatment Room	N/A	N/A
1-D1-005 - Consult Exam	NO (-84.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
1-D1-008 - Treatment Room	N/A	N/A
1-D1-014 - Consult Exam	NO (-92%)	NO
1-D1-015 - Play Therapy	NO (-78.8%)	NO
1-D1-016 - Consult multi-disciplinary	NO (-71.4%)	NO
1-D1-017 - Consult Exam	NO (-65%)	NO
1-D1-018 - Consult Exam Ophthalmology	NO (-77.6%)	NO
1-D1-019 - Consult Exam ENT	NO (-72.5%)	NO
1-D1-020 - Consult Exam Cleft	NO (-63.7%)	NO
1-D1-021 - Consult Exam Cleft	NO (-64.5%)	NO
1-D1-022 - Consult Exam ENT	NO (-67.7%)	NO
1-D1-023 - Consult Exam ENT	NO (-64.2%)	NO
1-D1-026 - Infant Measuring Room	N/A	N/A
1-D1-027 - Sub-waiting play Nurse Base	N/A	N/A
1-D1-027 Sub waiting play/Nurse Bay	N/A	N/A
1-D1-029 - Baby Infant Feed	N/A	N/A
1-D1-033 - Phlebotomy Room	N/A	N/A
1-D1-036 - Physical Measurement	N/A	N/A
1-D3-005 - Fields Test	N/A	N/A
1-D3-006 - CE Orthoptic	N/A	N/A
1-D3-007 - CE Orthoptic	N/A	N/A
1-D3-008 - CE Orthoptic	N/A	N/A
1-D3-009 - CE Orthoptic	N/A	N/A
1-D4-002 - ABR Room	NO (-73.6%)	NO
1-D4-003 - Test Room	NO (-63.6%)	NO
1-D4-004 - Staff Office BP	N/A	N/A
1-D4-005 - Testing Clinic Room	NO (-72.3%)	NO
1-D4-006 - Obs Control	NO (-68%)	NO
1-D4-007 - Testing Clinic Room	NO (-83.9%)	NO
1-D4-008 - Obs Control	NO (-36.3%)	NO
1-D4-009 - Waiting Area	N/A	N/A
1-D4-010 - Work Room	NO (-74.8%)	NO
1-D4-012 - Mould Room	N/A	N/A
1-D4-013 - Mould Room	N/A	N/A
1-D6-001 - Office	N/A	N/A
1-D6-003 - Meeting Room (6p)	N/A	N/A
1-D6-004 - Office	N/A	N/A
1-D6-005 - Meeting Room (4p)	N/A	N/A
1-D6-009 - Office	N/A	N/A
1-D6-010 - Office	N/A	N/A
1-D6-016 - Management Office (4p)	NO (-76.6%)	NO
1-D6-017 - AC Staff Office (9p)	NO (-63.3%)	NO
1-D6-019 - Equipment Decontamination	N/A	N/A
1-D6-020 - Dietetic Clinic Room	NO (-62.8%)	NO
1-D6-021 - Dietetic Clinic Room	N/A	N/A
1-D6-023 - Reception (2p)	N/A	N/A
1-D6-025 - Infant Measuring Room	N/A	N/A
1-D6-027 - Treament Room OT	NO (-68.8%)	NO
1-D6-028 - Treatment Room Physio	NO (-67.8%)	NO
1-D6-029 - Treatment Room Physio	NO (-68.8%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
1-D6-030 - Treatment Room DF	NO (-68.3%)	NO
1-D6-032 - Treatment Room DF	NO (-79.6%)	NO
1-D6-035 - Treatment Room DF	NO (-48.2%)	NO
1-D6-036 - Treatment Room OT equipment	NO (-79.2%)	NO
1-D6-039 - Rehab Room Physio	NO (-72.9%)	NO
1-D6-040 - Splinting Casting Room	NO (-76.6%)	NO
1-D6-042 - Pantry	N/A	N/A
1-D6-046 - Rehab Room OT	NO (-86.3%)	NO
1-D6-048 - Rehab Room Physio	NO (-86.3%)	NO
1-D6-053 - Rehab Room Physio	N/A	N/A
1-D6-054 - Rehab Room	N/A	N/A
1-D7-003 - Dressing Room	N/A	N/A
1-D7-004 - Sluice	N/A	N/A
1-D7-005 - Office	N/A	N/A
1-D7-006 - Dressing Room	N/A	N/A
1-D7-007 - Disp Hold	N/A	N/A
1-T1-003 - IT Node Room	N/A	N/A
1-T1-004 - IT Node Room	N/A	N/A
2 - Office	NO (-59.6%)	NO
2 - Office	NO (-61.6%)	NO
2-R1-001 - Staff Room	N/A	N/A
2-R1-002 - Office	N/A	N/A
2-R1-003 - Meeting Room (4p)	N/A	N/A
2-R1-004 - Office	N/A	N/A
2-R1-006 - Meeting Room (6p)	N/A	N/A
2-R1-010 - Office	N/A	N/A
2-R1-011 - Office	N/A	N/A
2-R1-012 - Office	N/A	N/A
2-R1-015 - Meeting Room (6p)	N/A	N/A
2-R1-017 - Office	N/A	N/A
2-R1-018 - Office	N/A	N/A
2-R1-019 - Office	N/A	N/A
2-R1-023 - Meeting Room (4p)	N/A	N/A
2-R1-024 - Office	N/A	N/A
2-R1-025 - Office	NO (-63.5%)	NO
2-R1-027 - Meeting Room (4p)	N/A	N/A
2-R1-028 - Meeting Room (4p)	N/A	N/A
2-R1-029 - Office	N/A	N/A
2-R1-030 - Office	N/A	N/A
2-R1-031 - Office	N/A	N/A
2-R1-036 - Meeting Room (4p)	N/A	N/A
2-R1-039 - Office	N/A	N/A
2-R1-040 - Office	N/A	N/A
2-R1-041 - Office	N/A	N/A
2-R1-042 - Office	N/A	N/A
2-R1-045 - Meeting Room (4p)	N/A	N/A
2-R1-046 - Meeting Room (4p)	N/A	N/A
2-R1-048 - Office	NO (-48.6%)	NO
2-R1-049 - Open Plan Desk Area	NO (-79.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
2-R1-049 - Open Plan Desk Area	NO (-71.7%)	NO
2-R1-051 - Open Plan Desk Area	NO (-77.7%)	NO
2-R1-052 - Open Plan Desk Area	NO (-88.2%)	NO
2-R1-052 - Open Plan Desk Area	NO (-70.7%)	NO
2-R1-052 - Open Plan Desk Area	NO (-56.3%)	NO
2-R1-053 - Open Plan Desk Area	NO (-80.4%)	NO
2-R1-054 - Open Plan Desk Area	NO (-53%)	NO
2-R1-055 - Open Plan Desk Area	NO (-79.4%)	NO
2-R1-055 - Open Plan Desk Area	NO (-59.1%)	NO
2-R1-055 - Open Plan Desk Area	NO (-78.2%)	NO
2-R1-055 - Open Plan Desk Area	NO (-54.4%)	NO
2-T1-005 - IT Node Room	N/A	N/A
2-T1-006 - IT Node Room	N/A	N/A
3-H3-001 - Workshop/Tutorial Room 3	NO (-72.6%)	NO
3-H3-002 - Control Room	N/A	N/A
3-H3-004 - Workshop/Tutorial Room 2	N/A	N/A
3-H3-005 - Scenario Room	NO (-69.7%)	NO
3-H3-010 - Workshop/Tutorial Room 1	N/A	N/A
3-H3-013 - Manual Handling Health and Safety	NO (-79.5%)	NO
3-H3-014 - Practice Based Educators Office	NO (-71.7%)	NO
3-H3-015 - Meeting Room	NO (-72.3%)	NO
3-H3-016 - Seminar Room	NO (-72.9%)	NO
3-H3-018 - Management/Admin Office	N/A	N/A
3-H3-019 - Computer Games	N/A	N/A
3-K2-002 - Reception	N/A	N/A
3-K2-003 - Office (1p)	N/A	N/A
3-K2-006 - Lounge non-residents	N/A	N/A
3-K2-008 - Family Room 1	N/A	N/A
3-K2-010 - Family Room 3	NO (-67%)	NO
3-K2-012 - Family Room 2	NO (-78.8%)	NO
3-K2-014 - Family Room 4	NO (-62.4%)	NO
3-K2-016 - Family Room 5	N/A	N/A
3-K2-019 - Family Room (Acc 1)	N/A	N/A
3-K2-021 - Family Room 6	NO (-66.9%)	NO
3-K2-023 - Family Room 7	NO (-68.6%)	NO
3-K2-025 - Family Room8 (4p)	NO (-78.3%)	NO
3-K2-027 - Family Room 9	NO (-79.3%)	NO
3-K2-029 - Family Room 10	NO (-78.5%)	NO
3-K2-032 - Family Room 11	NO (-78.4%)	NO
3-K2-035 - Family Room 12	NO (-78.4%)	NO
3-K2-037 - Family Room 13	NO (-78.8%)	NO
3-K2-040 - Family Room 14	NO (-78.2%)	NO
3-K2-044 - Family Room 15	NO (-78.6%)	NO
3-K2-045 - Family Room 16 (4p)	NO (-78.5%)	NO
3-K2-051 - Residents Day Room	N/A	N/A
3-K2-053 - Residents Play Room	N/A	N/A
3-K2-059 - Family Room 17 (4p)	NO (-84.4%)	NO
3-K2-060 - Family Room 2	NO (-53.5%)	NO
3-K2-062 - Family Room 18 (4p)	NO (-78.3%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
3-K2-062 - Family Room 18 (4p)	N/A	N/A
3-K2-062 - Family Room 18 (4p)	N/A	N/A
3-K2-065 - Family Room 19 (4p)	NO (-78.8%)	NO
3-K2-066 - Family Room 20 (4p)	NO (-77.1%)	NO
3-K2-069 - Family Room 21 (4p)	N/A	N/A
3-K2-072 - Family Room 22 (4p)	N/A	N/A
3-K2-073 - Family Room 23 (4p)	N/A	N/A
3-K2-075 - Family Room 24 (4p)	NO (-78.8%)	NO
3-K2-085 - Fundraisers	N/A	N/A
3-T1-004 - IT Node Room	N/A	N/A
3-T1-005 - I Node Room	N/A	N/A
4 - Atrium	NO (-92%)	NO
4 - Plant	N/A	N/A
4 - Plant	N/A	N/A
G - Reception Area	N/A	N/A
G-D1-0001 - Staff Room	N/A	N/A
G-D1-002 - Baby Infant Feed	N/A	N/A
G-D1-008 - Plaster Suite 3 bays	N/A	N/A
G-D1-010 - Orthotics Workshop	N/A	N/A
G-D1-011 - Consult Exam	NO (-78.8%)	NO
G-D1-012 - Consult Exam	NO (-77.9%)	NO
G-D1-013 - Consult Exam	NO (-77.9%)	NO
G-D1-014 - Consult Exam	NO (-77.9%)	NO
G-D1-016 - Consult Exam Child Protection	N/A	N/A
G-D1-020 - Phlebotomy	N/A	N/A
G-D1-021 - Child Protection Room	N/A	N/A
G-D1-024 - Pantry	N/A	N/A
G-D1-025 - Physical Measurement	N/A	N/A
G-D1-028 - Infant Measuring Room	N/A	N/A
G-D1-032 - Consult Exam	NO (-84.8%)	NO
G-D1-033 - Treatment Room	NO (-78.4%)	NO
G-D1-034 - Consult Exam	NO (-82%)	NO
G-D1-035 - Consult Exam	NO (-78.3%)	NO
G-D1-036 - Consult Exam	NO (-75.4%)	NO
G-D1-037 - Meeting Room	N/A	N/A
G-D1-038 - Consult Exam	NO (-74.2%)	NO
G-D1-039 - Consult Exam	NO (-72.1%)	NO
G-D1-040 - Consult multi-disciplinary	NO (-89.1%)	NO
G-D1-041 - Outpatient Management Office	NO (-84.8%)	NO
G-D2-001 - Waiting Area	N/A	N/A
G-D2-003 - Cardiology Admin Office (2p)	N/A	N/A
G-D2-005 - Cardio Pulmonary Exercise Lab	NO (-52.4%)	NO
G-D2-006 - Echocardiography Room	N/A	N/A
G-D2-009 - ECG Procedure Room	N/A	N/A
G-D2-010 - Respiratory Admin Office (3p)	N/A	N/A
G-D2-012 - Domiciliary Sleep Studies	NO (-51%)	NO
G-D2-013 - Lung Function Lab	N/A	N/A
G-D2-014 - Exercise Tolerance Test Room	NO (-68%)	NO
G-D2-015 - Physical Measurement	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
G-D5-002 - Laboratory	N/A	N/A
G-D5-004 - Surgery multi-disciplinary	N/A	N/A
G-D5-007 - Recovery	NO (-55.1%)	NO
G-D5-008 - Surgery	N/A	N/A
G-D5-009 - Surgery	N/A	N/A
G-D5-010 - Surgery	N/A	N/A
G-D8-001 - Open Plan Office	NO (-65.9%)	NO
G-D8-002 - Interview Room	N/A	N/A
G-E1-003 - Sub-Waiting Area/Supervised Play	N/A	N/A
G-I1-003 - Security Office	NO (-93.7%)	NO
G-I1-006 - Retail Shop	N/A	N/A
G-I1-007 - Catering Shop	N/A	N/A
G-K1-001 - Meeting Room	NO (-59%)	NO
G-K1-002 - Meeting Room	NO (-67.7%)	NO
G-K1-003 - Office Family Support (3p)	NO (-77.5%)	NO
G-K1-004 - Office Staff SKFF (4p)	NO (-65.5%)	NO
G-K1-005 - Office Staff SKFF (3p)	NO (-55.2%)	NO
G-K1-006 - Waiting Area	N/A	N/A
G-K1-010 - Interview Room	N/A	N/A
G-K1-011 - Office Manager (2p)	NO (-67.8%)	NO
G-K1-012 - Office Kindred (3p pod)	NO (-64%)	NO
G-K1-015 - Interview Room	N/A	N/A
G-K1-017 - Dropin Multi-purpose room	NO (-100%)	NO
G-K1-021 - Complementary Therapy Room	NO (-77.2%)	NO
G-K1-024 - Drop-in Office	NO (-81.3%)	NO
G-T1-006 - IT Node Room	N/A	N/A
G-T1-007 - IT Node Room	N/A	N/A

Criterion 4: The performance of the building, as built, should be consistent with the BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	9677	9677
External area [m²]	10626.9	10626.9
Weather	EDI	EDI
Infiltration [m³/hm²@ 50Pa]	5	5
Average conductance [W/K]	3831.63	0
Average U-value [W/m²K]	0.36	0
Alpha value* [%]	8.18	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
100	**C2 Residential Inst.: Hospitals and Care Homes**
	C2 Residential Inst.: Residential schools
	C2 Residential Inst.: Universities and colleges
	C2A Secure Residential Inst.
	Residential spaces
	D1 Non-residential Inst.: Community/Day Centre
	D1 Non-residential Inst.: Libraries, Museums, and Galleries
	D1 Non-residential Inst.: Education
	D1 Non-residential Inst.: Primary Health Care Building
	D1 Non-residential Inst.: Crown and County Courts
	D2 General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	73.66	45.34
Cooling	3.04	1.04
Auxiliary	26.02	17.29
Lighting	39.77	30.7
Hot water	81.8	23.44
Equipment*	80.71	80.71
TOTAL**	**159.08**	**117.82**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	3.37	0
Wind turbines	0	0
CHP generators	65.2	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	145.94	150.68
Primary energy* [kWh/m²]	169.14	213.35
Total emissions [kg/m²]	30.1	39

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	77.6	0	0.3	0	36.1	0.91	0	0.97	0
	Notional	96.3	0	32	0	22.3	0.87	0	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	1.4	260.8	0	27.1	68	0.7	2.61	0.97	4.09
	Notional	8.1	120.4	2.7	8.6	44.6	0.83	3.79	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	8	134.8	0	11.3	23.7	0.87	3.23	0.97	4.09
	Notional	16.7	88.1	5.6	6.3	30.2	0.83	3.79	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	222.4	0	0.7	0	1.5	0.91	0	0.97	0
	Notional	252.7	0	84.2	0	1.5	0.83	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	80.5	0	0.2	0	15.7	0.91	0	0.97	0
	Notional	90.1	0	30	0	15.7	0.83	0	----	----

Key to terms

Heat dem [MJ/m2] = Heating energy demand
Cool dem [MJ/m2] = Cooling energy demand
Heat con [kWh/m2] = Heating energy consumption
Cool con [kWh/m2] = Cooling energy consumption
Aux con [kWh/m2] = Auxiliary energy consumption
Heat SSEFF = Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER = Cooling system seasonal energy efficiency ratio
Heat gen SSEFF = Heating generator seasonal efficiency
Cool gen SSEER = Cooling generator seasonal energy efficiency ratio
ST = System type
HS = Heat source
HFT = Heating fuel type
CFT = Cooling fuel type

Key Features

The BCO can give particular attention to items with specifications that are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.2	TEMP0018:Surf[4]
Floor	0.2	0.2	1___0000:Surf[0]
Roof	0.15	0.15	3CRR0002:Surf[0]
Windows, roof windows, and rooflights	1.5	1.6	TEMP0018:Surf[0]
Personnel doors	1.5	-	No Personnel doors in building
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

BRUKL Output Document

HM Government

Compliance with England and Wales Building Regulations Part L 2010

Project name

Block_B_Part_L_sim000

As designed

Date: Tue Aug 26 03:04:45 2014

Administrative information

Building Details

Address: Address 1, City, Postcode

Certification tool

Calculation engine: Apache

Calculation engine version: 6.4.0.12

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 6.4.0.12

BRUKL compliance check version: v4.1.e.5

Owner Details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Certifier details

Name: Name

Telephone number: Phone

Address: Street Address, City, Postcode

Criterion 1: The calculated CO_2 emission rate for the building should not exceed the target

1.1	CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	35.5
1.2	Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	35.5
1.3	Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	26.2
1.4	Are emissions from the building less than or equal to the target?	BER =< TER
1.5	Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and the building services should achieve reasonable overall standards of energy efficiency

2.a Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.2	0.2	BDRM0000:Surf[3]
Floor	0.25	0.2	0.2	BDRM0000:Surf[0]
Roof	0.25	0.15	0.15	FLTB0001:Surf[0]
Windows***, roof windows, and rooflights	2.2	1.6	1.6	BDRM0000:Surf[1]
Personnel doors	2.2	2.19	2.19	CRCL0309:Surf[1]
Vehicle access & similar large doors	1.5	-	-	No Vehicle access doors in building
High usage entrance doors	3.5	-	-	No High usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]
$U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

* There might be more than one surface where the maximum U-value occurs.
** Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.
*** Display windows and similar glazing are excluded from the U-value check.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	5

2.b Building services

The building services parameters listed below are expected to be checked by the BCO against guidance. No automatic checking is performed by the tool.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	YES
Whole building electric power factor achieved by power factor correction	>0.95

1- 01_Radiant_Panels+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	-	0	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

2- 04_All_Air_System_Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

3- 03_Radiant_Panels+Zonal_Extract

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

4- 02_Radiant_Panels+Nat_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	-	0	-
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

5- 05_Ceiling_Cassette+Central_Mech_Vent

Heating seasonal efficiency	**Cooling nominal efficiency**	**SFP [W/(l/s)]**	**HR seasonal efficiency**
0.97	3.35	1.5	0.6
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system			YES

"No HWS in project, or hot water is provided by HVAC system"

Local mechanical ventilation and exhaust

Zone	**Supply/extract SFP [W/(l/s)]**	**HR seasonal efficiency**	**Exhaust SFP [W/(l/s)]**
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Fault_Bedrooms_(NCM_Bedroom)	1.5	-	-
B-1-Clinical Waste Clean	1.5	-	-
B-1-Clinical Waste Dirty	1.5	-	-
B-2-General Works	1.5	-	-
B-3-Works Area	1.5	-	-
B-5-Confidential Waste	0.8	-	0.6
B-6-Kitchen Waste	0.8	-	0.6
B-7-White Goods	0.8	-	0.6
B-8-WEEE Lamp	0.8	-	0.6
B-9-Damaged Furniture	0.8	-	0.6
B-I2-002-DSR	0.8	-	0.6
B-I2-004-Beds Store	0.8	-	0.6
B-I2-005-Toys Store	0.8	-	0.6
B-S1-001-Prep/Cooking Area	1.5	-	-
B-S1-002-Prep/Cooking Area	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
B-S1-003-Diet Prep Area	1.5	-	-
B-S1-004-Diet Store	0.8	-	0.6
B-S1-005-Temp Ctr Sandwich Prep	1.5	-	-
B-S1-006-Bakery Prep Area	1.5	-	-
B-S1-007-Staff Room	1.5	-	-
B-S1-008-Office (5P)	1.5	-	-
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-009-F Staff Changing inc Shower	0.8	-	0.6
B-S1-010-M Staff Changing inc Shower	0.8	-	0.6
B-S1-010-M Staff Changing inc Shower	0.8	-	0.6
B-S1-010-M Staff Changing inc Shower	0.8	-	0.6
B-S1-011-Kitchen Equipment	0.8	-	0.6
B-S1-012-Pan Wash	1.5	-	-
B-S1-013-Returned Trolleys	0.8	-	0.6
B-S1-014-Trolley Wash Area	1.5	-	-
B-S1-015-Refuse	0.8	-	0.6
B-S1-017-Clean Trolley Park	0.8	-	0.6
B-S1-018-Disposables/Detergent	0.8	-	0.6
B-S1-018-DSR	0.8	-	0.6
B-S1-019-Raw Meat	1.5	-	-
B-S1-020-Veg Store	0.8	-	0.6
B-S1-021-Freezer	0.8	-	0.6
B-S1-022-Freezer	0.8	-	0.6
B-S1-023-Receipt Bay	0.8	-	0.6
B-S1-025-Dairy Store	0.8	-	0.6
B-S1-027-Dry Goods	0.8	-	0.6
B-S1-027-Weighing	1.5	-	-
B-S3-002-Linen Pool (Clean)	0.8	-	0.6
B-S3-003-Supplies Store	0.8	-	0.6
B-S3-004-Laundry (Microfibre)	1.5	-	-
B-S3-005-Linen Pool (Dirty)	0.8	-	0.6
B-S3-007-Cleaning Equipment Store	0.8	-	0.6
B-S3-008-Sanitary Bins Store	0.8	-	0.6
B-S3-009-DSR	0.8	-	0.6
B-S3-010-Bulk Equipment Store	0.8	-	0.6
B-S3-011-Station/Phone Booth	0.8	-	0.6
B-S3-012-Domestic Services Office (SP)	1.5	-	-
B-S3-013-Curtain Store	0.8	-	0.6
B-S4-001-Storage/Holding Area	0.8	-	0.6
B-S4-003-Mailroom	1.5	-	-
B-S4-004-Office (2P)	1.5	-	-
B-S4-005-Porters Office	1.5	-	-
B-S6-003-Shower	0.8	-	0.6
B-S6-004-Shower	0.8	-	0.6
B-S6-004-Workshop (NPD)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
B-S6-005-NHSL Office	1.5	-	-
B-S6-006-NHSL Store	0.8	-	0.6
B-S6-009-Workshop (NHSL)	1.5	-	-
B-S6-010-WC (Staff)	0.8	-	0.6
B-S6-014-Store	0.8	-	0.6
B-S8-001-Trolley	0.8	-	0.6
B-T1-001-IT Node Room	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

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Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Bedrooms_(NCM_Bedroom)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Changing Facilities_(NCM_Changing_Facilities)	1.5	-	-
Clinic_(NCM_Consulting)	1.5	-	-
Clinic_(NCM_Consulting)	1.5	-	-
Clinic_(NCM_Consulting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Consulting_(NCM_Consulting)	1.5	-	-
Dental_(NCM_A&E_Consulting)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
Dining_(NCM_Eating/Drinking)	1.5	-	-
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
DSR_(NCM_Cupboard)	-	-	0.6
DSR_(NCM_Cupboard)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Ensuites_(NCM_Bathroom)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Equipment_(NCM_Cupboard)	-	-	0.6
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Examination_(NCM_Consulting)	1.5	-	-
Freezer_(NCM_Cupboard)	-	-	0.6
Freezer_(NCM_Cupboard)	-	-	0.6
Injection_(NCM_A&E_Consulting)	1.5	-	-
Injection_(NCM_A&E_Consulting)	1.5	-	-
Injection_(NCM_A&E_Consulting)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IPS_(NCM_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
IT_(NCM_Office_IT)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Kitchen_(NCM_Food_Prep)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laboratory_(NCM_Laboratory)	1.5	-	-
Laundry_(NCM_Laundry)	1.5	-	-
Laundry_(NCM_Laundry)	1.5	-	-
Library_(NCM_Classroom)	1.5	-	-
Library_(NCM_Classroom)	1.5	-	-
Library_(NCM_Classroom)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Lounge_(NCM_Waiting)	1.5	-	-
Nappy Change_(NCM_Toilet)	-	-	0.6
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Office_(NCM_Office)	1.5	-	-
Pantry_(NCM_Cupboard)	-	-	0.6
Photocopy_(NCM_Office)	1.5	-	-
Photocopy_(NCM_Office)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Reception_(NCM_Reception)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Recovery_(NCM_Wards_Patients)	1.5	-	-
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Shower_(NCM_Bathroom)	-	-	0.6
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Staff_(NCM_Meeting)	1.5	-	-
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Store_(NCM_Cupboard)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Toilets_(NCM_Toilets)	-	-	0.6
Trays_(NCM_Cupboard)	-	-	0.6
Trays_(NCM_Cupboard)	-	-	0.6
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Utility_(NCM_Cupboards)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Waiting_(NCM_Waiting)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-

Local mechanical ventilation and exhaust

Zone	Supply/extract SFP [W/(l/s)]	HR seasonal efficiency	Exhaust SFP [W/(l/s)]
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-
Ward Areas_(NCM_Wards_Patients)	1.5	-	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ward Areas_(NCM_Wards_Patients)	10	-
Bedrooms_(NCM_Bedroom)	140	-
Fault_Bedrooms_(NCM_Bedroom)	40	-
Anaesthetic_(NCM_A&E_Consulting)	350	-
Anaesthetic_(NCM_A&E_Consulting)	440	-
Anaesthetic_(NCM_A&E_Consulting)	430	-
Anaesthetic_(NCM_A&E_Consulting)	420	-
Anaesthetic_(NCM_A&E_Consulting)	430	-
Anaesthetic_(NCM_A&E_Consulting)	430	-
Anaesthetic_(NCM_A&E_Consulting)	440	-
Anaesthetic_(NCM_A&E_Consulting)	420	-
B-1-Clinical Waste Clean	170	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
B-1-Clinical Waste Dirty	230	-
B-2-General Works	190	-
B-3-Works Area	130	-
B-5-Confidential Waste	50	-
B-6-Kitchen Waste	50	-
B-7-White Goods	50	-
B-8-WEEE Lamp	30	-
B-9-Damaged Furniture	60	-
B-COR-001-Corridor	170	-
B-COR-002-Corridor	290	-
B-COR-003-Corridor	280	-
B-COR-004-Corridor	280	-
B-COR-005-Riser Access	230	-
B-COR-006-Corridor	260	-
B-COR-007-Corridor	200	-
B-COR-008-Corridor	170	-
B-COR-009-Corridor	110	-
B-COR-010-Corridor	170	-
B-COR-012-Corridor	590	-
B-COR-013-Corridor	200	-
B-COR-014-Corridor	170	-
B-Corridor	390	-
B-Corridor	120	-
B-I2-002-DSR	100	-
B-I2-004-Beds Store	280	-
B-I2-005-Toys Store	40	-
B-PLANT-001-Plant Room 15	450	-
B-PLANT-002-Plant Room 15	90	-
B-PLANT-003-Plant Room 15	140	-
B-Plant-004- Plant Room 15	260	-
B-Plant-006- Plant Room 15	440	-
B-Plant-007- Plant Room 15	550	-
B-PLANT-009-Plant Room 15	620	-
B-Plant-010- Plant Room 15	190	-
B-Plant-012- Plant Room 15	120	-
B-Plant-013- Plant Room 15	140	-
B-PLANT-015-Plant Room 15	130	-
B-Plant-018- Plant Room 15	210	-
B-S1-001-Prep/Cooking Area	750	-
B-S1-002-Prep/Cooking Area	130	-
B-S1-003-Diet Prep Area	100	-
B-S1-004-Diet Store	20	-
B-S1-005-Temp Ctr Sandwich Prep	140	-
B-S1-006-Bakery Prep Area	100	-
B-S1-007-Staff Room	90	-
B-S1-008-Office (5P)	90	-
B-S1-009-F Staff Changing inc Shower	10	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
B-S1-009-F Staff Changing inc Shower	10	-
B-S1-009-F Staff Changing inc Shower	20	-
B-S1-009-F Staff Changing inc Shower	10	-
B-S1-010-M Staff Changing inc Shower	10	-
B-S1-010-M Staff Changing inc Shower	10	-
B-S1-010-M Staff Changing inc Shower	20	-
B-S1-011-Kitchen Equipment	20	-
B-S1-012-Pan Wash	110	-
B-S1-013-Returned Trolleys	20	-
B-S1-014-Trolley Wash Area	40	-
B-S1-015-Refuse	40	-
B-S1-017-Clean Trolley Park	90	-
B-S1-018-Disposables/Detergant	20	-
B-S1-018-DSR	100	-
B-S1-019-Raw Meat	80	-
B-S1-020-Veg Store	20	-
B-S1-021-Freezer	30	-
B-S1-022-Freezer	30	-
B-S1-023-Receipt Bay	10	-
B-S1-024-Corridor	130	-
B-S1-025-Dairy Store	30	-
B-S1-027-Dry Goods	30	-
B-S1-027-Weighing	60	-
B-S3-001-Corridor	30	-
B-S3-002-Linen Pool (Clean)	230	-
B-S3-003-Supplies Store	60	-
B-S3-004-Laundry (Microfibre)	170	-
B-S3-005-Linen Pool (Dirty)	100	-
B-S3-006-Corridor	70	-
B-S3-007-Cleaning Equipment Store	30	-
B-S3-008-Sanitary Bins Store	20	-
B-S3-009-DSR	90	-
B-S3-010-Bulk Equipment Store	30	-
B-S3-011-Station/Phone Booth	10	-
B-S3-012-Domestic Services Office (S9)	90	-
B-S3-013-Curtain Store	20	-
B-S4-001-Storage/Holding Area	280	-
B-S4-002-Lobby	30	-
B-S4-003-Mailroom	90	-
B-S4-004-Office (2P)	40	-
B-S4-005-Porters Office	50	-
B-S6-001-Corridor	50	-
B-S6-001-Corridor	40	-
B-S6-003-Shower	10	-
B-S6-004-Shower	10	-
B-S6-004-Workshop (NPD)	1410	-
B-S6-005-NHSL Office	70	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
B-S6-006-NHSL Store	80	-
B-S6-009-Workshop (NHSL)	740	-
B-S6-010-WC (Staff)	30	-
B-S6-014-Store	60	-
B-S8-001-Trolley	70	-
B-Stair	120	-
B-T1-001-IT Node Room	130	-
B-Z1-002-Stair 02	120	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	50	-
Bays_(NCM_Circulation)	60	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	60	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	70	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	70	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	40	-
Bays_(NCM_Circulation)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	100	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	20	-
Bays_(NCM_Circulation)	10	-
Bays_(NCM_Circulation)	30	-
Bays_(NCM_Circulation)	30	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	140	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	260	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	150	-
Bedrooms_(NCM_Bedroom)	150	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	230	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	170	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	160	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	10	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	70	-
Bedrooms_(NCM_Bedroom)	250	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	140	-
Bedrooms_(NCM_Bedroom)	50	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	50	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	130	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	90	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	20	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	40	-
Bedrooms_(NCM_Bedroom)	60	-
Bedrooms_(NCM_Bedroom)	40	-
BZ1-003-Stair 03	120	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	80	-
Changing Facilities_(NCM_Changing_Facilities)	240	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	160	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	240	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	80	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	240	-
Changing Facilities_(NCM_Changing_Facilities)	80	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	20	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	80	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-
Changing Facilities_(NCM_Changing_Facilities)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Changing Facilities_(NCM_Changing_Facilities)	50	-
Changing Facilities_(NCM_Changing_Facilities)	50	-
Changing Facilities_(NCM_Changing_Facilities)	50	-
Changing Facilities_(NCM_Changing_Facilities)	50	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	190	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	150	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	520	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	310	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	560	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	310	-
Circulation_(NCM_Circulation_Area)	360	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	360	-
Circulation_(NCM_Circulation_Area)	250	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	250	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	290	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	310	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	440	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	120	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	420	-
Circulation_(NCM_Circulation_Area)	240	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	500	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	290	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	500	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	580	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	220	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	230	-
Circulation_(NCM_Circulation_Area)	390	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	420	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	190	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	200	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	400	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	480	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	290	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	340	-
Circulation_(NCM_Circulation_Area)	350	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	190	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	390	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	280	-
Circulation_(NCM_Circulation_Area)	460	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	160	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	150	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	30	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	210	-
Circulation_(NCM_Circulation_Area)	140	-
Circulation_(NCM_Circulation_Area)	180	-
Circulation_(NCM_Circulation_Area)	70	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	60	-
Circulation_(NCM_Circulation_Area)	590	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	520	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	50	-
Circulation_(NCM_Circulation_Area)	70	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	110	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	350	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	620	-
Circulation_(NCM_Circulation_Area)	90	-
Circulation_(NCM_Circulation_Area)	120	-
Circulation_(NCM_Circulation_Area)	170	-
Circulation_(NCM_Circulation_Area)	20	-
Circulation_(NCM_Circulation_Area)	40	-
Circulation_(NCM_Circulation_Area)	130	-
Circulation_(NCM_Circulation_Area)	80	-
Circulation_(NCM_Circulation_Area)	260	-
Circulation_(NCM_Circulation_Area)	360	-
Circulation_(NCM_Circulation_Area)	410	-
Circulation_(NCM_Circulation_Area)	280	-
Circulation_(NCM_Circulation_Area)	10	-
Circulation_(NCM_Circulation_Area)	100	-
Circulation_(NCM_Circulation_Area)	110	-
Clinic_(NCM_Consulting)	130	-
Clinic_(NCM_Consulting)	120	-
Clinic_(NCM_Consulting)	700	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	40	-
Consulting_(NCM_Consulting)	90	-
Consulting_(NCM_Consulting)	260	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	130	-
Consulting_(NCM_Consulting)	170	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	170	-
Consulting_(NCM_Consulting)	160	-
Consulting_(NCM_Consulting)	160	-
Dental_(NCM_A&E_Consulting)	170	-
Dining_(NCM_Eating/Drinking)	170	-
Dining_(NCM_Eating/Drinking)	60	-
Dining_(NCM_Eating/Drinking)	390	-
Dining_(NCM_Eating/Drinking)	40	-
Dining_(NCM_Eating/Drinking)	70	-
Dining_(NCM_Eating/Drinking)	80	-
Dining_(NCM_Eating/Drinking)	40	-
Dining_(NCM_Eating/Drinking)	30	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
DSR_(NCM_Cupboard)	70	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	100	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	110	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	110	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	100	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	80	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
DSR_(NCM_Cupboard)	90	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	20	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	80	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	20	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	100	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	50	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	20	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	80	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	30	-
Ensuites_(NCM_Bathroom)	40	-
Ensuites_(NCM_Bathroom)	30	-
Equipment_(NCM_Cupboard)	360	-
Equipment_(NCM_Cupboard)	30	-
Equipment_(NCM_Cupboard)	150	-
Equipment_(NCM_Cupboard)	90	-
Equipment_(NCM_Cupboard)	60	-
Equipment_(NCM_Cupboard)	160	-
Equipment_(NCM_Cupboard)	40	-
Equipment_(NCM_Cupboard)	90	-
Equipment_(NCM_Cupboard)	60	-
Equipment_(NCM_Cupboard)	290	-
Equipment_(NCM_Cupboard)	70	-
Equipment_(NCM_Cupboard)	50	-
Equipment_(NCM_Cupboard)	100	-
Equipment_(NCM_Cupboard)	100	-
Equipment_(NCM_Cupboard)	90	-
Equipment_(NCM_Cupboard)	100	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	160	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	140	-
Examination_(NCM_Consulting)	160	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Examination_(NCM_Consulting)	190	-
Examination_(NCM_Consulting)	170	-
Examination_(NCM_Consulting)	160	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	230	-
Examination_(NCM_Consulting)	150	-
Examination_(NCM_Consulting)	160	-
Freezer_(NCM_Cupboard)	30	-
Freezer_(NCM_Cupboard)	50	-
Injection_(NCM_A&E_Consulting)	120	-
Injection_(NCM_A&E_Consulting)	120	-
Injection_(NCM_A&E_Consulting)	180	-
Interview_(NCM_Offices)	190	-
Interview_(NCM_Offices)	50	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	300	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	40	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	50	-
Interview_(NCM_Offices)	180	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	130	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	80	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	110	-
Interview_(NCM_Offices)	90	-
Interview_(NCM_Offices)	100	-
Interview_(NCM_Offices)	100	-
IPS_(NCM_IT)	30	-
IPS_(NCM_IT)	30	-
IPS_(NCM_IT)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
IPS_(NCM_IT)	50	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	120	-
IT_(NCM_Office_IT)	360	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	140	-
IT_(NCM_Office_IT)	110	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	130	-
IT_(NCM_Office_IT)	100	-
IT_(NCM_Office_IT)	120	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	90	-
IT_(NCM_Office_IT)	90	-
Kitchen_(NCM_Food_Prep)	130	-
Kitchen_(NCM_Food_Prep)	110	-
Kitchen_(NCM_Food_Prep)	110	-
Kitchen_(NCM_Food_Prep)	40	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	70	-
Kitchen_(NCM_Food_Prep)	180	-
Kitchen_(NCM_Food_Prep)	180	-
Kitchen_(NCM_Food_Prep)	90	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	60	-
Kitchen_(NCM_Food_Prep)	120	-
Kitchen_(NCM_Food_Prep)	190	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	170	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	50	-
Kitchen_(NCM_Food_Prep)	100	-
Kitchen_(NCM_Food_Prep)	100	-
Laboratory_(NCM_Laboratory)	160	-
Laboratory_(NCM_Laboratory)	180	-
Laboratory_(NCM_Laboratory)	510	-
Laboratory_(NCM_Laboratory)	110	-
Laboratory_(NCM_Laboratory)	190	-
Laboratory_(NCM_Laboratory)	1440	-
Laboratory_(NCM_Laboratory)	550	-
Laboratory_(NCM_Laboratory)	130	-
Laundry_(NCM_Laundry)	70	-
Laundry_(NCM_Laundry)	100	-
Library_(NCM_Classroom)	240	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Library_(NCM_Classroom)	250	-
Library_(NCM_Classroom)	4540	-
Lobby_(NCM_Public_Circulation_Area)	20	-
Lounge_(NCM_Waiting)	380	15
Lounge_(NCM_Waiting)	140	15
Lounge_(NCM_Waiting)	560	15
Lounge_(NCM_Waiting)	310	15
Lounge_(NCM_Waiting)	170	15
Lounge_(NCM_Waiting)	230	15
Lounge_(NCM_Waiting)	150	15
Lounge_(NCM_Waiting)	350	15
Lounge_(NCM_Waiting)	440	15
Lounge_(NCM_Waiting)	160	15
Lounge_(NCM_Waiting)	160	15
Lounge_(NCM_Waiting)	190	15
Lounge_(NCM_Waiting)	130	15
Lounge_(NCM_Waiting)	180	15
Lounge_(NCM_Waiting)	270	15
Meeting_(NCM_Office_Meeting)	90	-
Meeting_(NCM_Office_Meeting)	240	-
Meeting_(NCM_Office_Meeting)	230	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	370	-
Meeting_(NCM_Office_Meeting)	90	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	260	-
Meeting_(NCM_Office_Meeting)	220	-
Meeting_(NCM_Office_Meeting)	240	-
Meeting_(NCM_Office_Meeting)	60	-
Meeting_(NCM_Office_Meeting)	300	-
Meeting_(NCM_Office_Meeting)	300	-
Meeting_(NCM_Office_Meeting)	100	-
Nappy Change_(NCM_Toilet)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	100	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Office_(NCM_Office)	90	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	130	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	120	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	280	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	350	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	30	-
Office_(NCM_Office)	90	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	880	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	100	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	100	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	130	-
Office_(NCM_Office)	20	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	40	-
Office_(NCM_Office)	300	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	60	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	90	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	70	-
Office_(NCM_Office)	80	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Office_(NCM_Office)	20	-
Office_(NCM_Office)	110	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	50	-
Office_(NCM_Office)	80	-
Office_(NCM_Office)	80	-
Operating_(NCM_Operating_Theatre)	3700	-
Operating_(NCM_Operating_Theatre)	680	-
Operating_(NCM_Operating_Theatre)	840	-
Operating_(NCM_Operating_Theatre)	2720	-
Operating_(NCM_Operating_Theatre)	640	-
Operating_(NCM_Operating_Theatre)	700	-
Operating_(NCM_Operating_Theatre)	3030	-
Operating_(NCM_Operating_Theatre)	1090	-
Operating_(NCM_Operating_Theatre)	710	-
Operating_(NCM_Operating_Theatre)	890	-
Operating_(NCM_Operating_Theatre)	2860	-
Operating_(NCM_Operating_Theatre)	650	-
Operating_(NCM_Operating_Theatre)	710	-
Operating_(NCM_Operating_Theatre)	3040	-
Operating_(NCM_Operating_Theatre)	690	-
Operating_(NCM_Operating_Theatre)	3050	-
Operating_(NCM_Operating_Theatre)	520	-
Operating_(NCM_Operating_Theatre)	670	-
Operating_(NCM_Operating_Theatre)	3820	-
Operating_(NCM_Operating_Theatre)	630	-
Operating_(NCM_Operating_Theatre)	3060	-
Operating_(NCM_Operating_Theatre)	3040	-
Operating_(NCM_Operating_Theatre)	620	-
Operating_(NCM_Operating_Theatre)	820	-
Operating_(NCM_Operating_Theatre)	3030	-
Operating_(NCM_Operating_Theatre)	1110	-
Operating_(NCM_Operating_Theatre)	640	-
Operating_(NCM_Operating_Theatre)	620	-
Operating_(NCM_Operating_Theatre)	700	-
Operating_(NCM_Operating_Theatre)	1130	-
Operating_(NCM_Operating_Theatre)	810	-
Operating_(NCM_Operating_Theatre)	660	-
Operating_(NCM_Operating_Theatre)	700	-
Operating_(NCM_Operating_Theatre)	1080	-
Operating_(NCM_Operating_Theatre)	3040	-
Operating_(NCM_Operating_Theatre)	690	-
Operating_(NCM_Operating_Theatre)	720	-
Pantry_(NCM_Cupboard)	80	-
Photocopy_(NCM_Office)	30	-
Photocopy_(NCM_Office)	30	-
Plant_(NCM_Light_Plant)	770	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Plant_(NCM_Light_Plant)	1430	-
Plant_(NCM_Light_Plant)	1810	-
Plant_(NCM_Light_Plant)	7300	-
Preparation_(NCM_A&E_Consulting)	220	-
Preparation_(NCM_A&E_Consulting)	260	-
Preparation_(NCM_A&E_Consulting)	90	-
Preparation_(NCM_A&E_Consulting)	210	-
Preparation_(NCM_A&E_Consulting)	180	-
Preparation_(NCM_A&E_Consulting)	360	-
Reception_(NCM_Reception)	100	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	80	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	70	15
Reception_(NCM_Reception)	290	15
Reception_(NCM_Reception)	240	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	60	15
Reception_(NCM_Reception)	100	15
Reception_(NCM_Reception)	110	15
Reception_(NCM_Reception)	230	15
Reception_(NCM_Reception)	40	15
Reception_(NCM_Reception)	80	15
Reception_(NCM_Reception)	190	15
Reception_(NCM_Reception)	90	15
Reception_(NCM_Reception)	100	15
Reception_(NCM_Reception)	50	15
Recovery_(NCM_Wards_Patients)	80	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	310	-
Recovery_(NCM_Wards_Patients)	60	-
Recovery_(NCM_Wards_Patients)	80	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	40	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	40	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	40	-
Recovery_(NCM_Wards_Patients)	80	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	50	-
Recovery_(NCM_Wards_Patients)	370	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Seminar_(NCM_Lecturetheatre)	130	-
Seminar_(NCM_Lecturetheatre)	140	-
Seminar_(NCM_Lecturetheatre)	240	-
Seminar_(NCM_Lecturetheatre)	290	-
Seminar_(NCM_Lecturetheatre)	130	-
Seminar_(NCM_Lecturetheatre)	300	-
Seminar_(NCM_Lecturetheatre)	150	-
Seminar_(NCM_Lecturetheatre)	260	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	10	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	50	-
Shower_(NCM_Bathroom)	20	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	10	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	40	-
Shower_(NCM_Bathroom)	50	-
Shower_(NCM_Bathroom)	10	-
Shower_(NCM_Bathroom)	50	-
Shower_(NCM_Bathroom)	40	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	160	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	130	-
Staff_(NCM_Meeting)	490	-
Staff_(NCM_Meeting)	50	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	340	-
Staff_(NCM_Meeting)	340	-
Staff_(NCM_Meeting)	60	-
Staff_(NCM_Meeting)	140	-
Staff_(NCM_Meeting)	820	-
Staff_(NCM_Meeting)	140	-
Staff_(NCM_Meeting)	60	-
Staff_(NCM_Meeting)	100	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	30	-
Staff_(NCM_Meeting)	10	-
Staff_(NCM_Meeting)	30	-
Staff_(NCM_Meeting)	80	-
Staff_(NCM_Meeting)	20	-
Staff_(NCM_Meeting)	620	-
Staff_(NCM_Meeting)	60	-
Staff_(NCM_Meeting)	250	-
Store_(NCM_Cupboard)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	90	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	60	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	250	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	270	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	100	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	40	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	80	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	60	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	80	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	10	-
Store_(NCM_Cupboard)	20	-
Store_(NCM_Cupboard)	70	-
Store_(NCM_Cupboard)	50	-
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	20	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Store_(NCM_Cupboard)	30	-
Store_(NCM_Cupboard)	60	-
Store_(NCM_Cupboard)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	60	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	50	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	20	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	30	-
Toilets_(NCM_Toilets)	90	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Toilets_(NCM_Toilets)	40	-
Trays_(NCM_Cupboard)	80	-
Trays_(NCM_Cupboard)	40	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	690	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	320	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	330	-
Treatment_(NCM_Treatment)	510	-
Treatment_(NCM_Treatment)	1360	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	330	-
Treatment_(NCM_Treatment)	910	-
Treatment_(NCM_Treatment)	400	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	540	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	270	-
Treatment_(NCM_Treatment)	190	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	270	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	260	-
Treatment_(NCM_Treatment)	790	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	250	-
Treatment_(NCM_Treatment)	420	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	300	-
Treatment_(NCM_Treatment)	280	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	290	-
Treatment_(NCM_Treatment)	910	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	50	-
Utility_(NCM_Cupboards)	60	-
Utility_(NCM_Cupboards)	60	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	60	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	50	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	50	-
Utility_(NCM_Cupboards)	40	-
Utility_(NCM_Cupboards)	40	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	50	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	100	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	100	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	120	-
Utility_(NCM_Cupboards)	90	-
Utility_(NCM_Cupboards)	120	-
Utility_(NCM_Cupboards)	80	-
Utility_(NCM_Cupboards)	70	-
Utility_(NCM_Cupboards)	70	-
Waiting_(NCM_Waiting)	260	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	320	15
Waiting_(NCM_Waiting)	1080	15
Waiting_(NCM_Waiting)	330	15
Waiting_(NCM_Waiting)	220	15
Waiting_(NCM_Waiting)	360	15
Waiting_(NCM_Waiting)	570	15
Waiting_(NCM_Waiting)	500	15
Waiting_(NCM_Waiting)	410	15
Waiting_(NCM_Waiting)	750	15
Waiting_(NCM_Waiting)	380	15
Waiting_(NCM_Waiting)	100	15
Waiting_(NCM_Waiting)	430	15
Waiting_(NCM_Waiting)	240	15
Waiting_(NCM_Waiting)	660	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	220	15
Waiting_(NCM_Waiting)	130	15
Waiting_(NCM_Waiting)	360	15
Waiting_(NCM_Waiting)	350	15
Waiting_(NCM_Waiting)	1230	15

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Waiting_(NCM_Waiting)	190	15
Waiting_(NCM_Waiting)	160	15
Waiting_(NCM_Waiting)	1030	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	380	15
Waiting_(NCM_Waiting)	210	15
Waiting_(NCM_Waiting)	110	15
Waiting_(NCM_Waiting)	470	15
Waiting_(NCM_Waiting)	380	15
Waiting_(NCM_Waiting)	700	15
Waiting_(NCM_Waiting)	260	15
Ward Areas_(NCM_Wards_Patients)	110	-
Ward Areas_(NCM_Wards_Patients)	40	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	40	-
Ward Areas_(NCM_Wards_Patients)	80	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	50	-
Ward Areas_(NCM_Wards_Patients)	70	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	50	-
Ward Areas_(NCM_Wards_Patients)	170	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	50	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	80	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	70	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	220	-
Ward Areas_(NCM_Wards_Patients)	190	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	70	-
Ward Areas_(NCM_Wards_Patients)	270	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	110	-
Ward Areas_(NCM_Wards_Patients)	60	-

General lighting and display lighting

Zone	General lighting [W]	Display lamps efficacy [lm/W]
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	220	-
Ward Areas_(NCM_Wards_Patients)	90	-
Ward Areas_(NCM_Wards_Patients)	10	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	30	-
Ward Areas_(NCM_Wards_Patients)	20	-
Ward Areas_(NCM_Wards_Patients)	20	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	420	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	110	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1040	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	430	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	900	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	720	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	360	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	750	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	350	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1020	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	910	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1120	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	330	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	400	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	100	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	200	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1030	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	410	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1040	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	100	-
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	1040	-

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-70.8%)	NO
Fault_Bedrooms_(NCM_Bedroom)	NO (-69.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
Anaesthetic_(NCM_A&E_Consulting)	N/A	N/A
B-S1-007-Staff Room	N/A	N/A
B-S1-008-Office (5P)	N/A	N/A
B-S3-012-Domestic Services Office (SR)	N/A	N/A
B-S4-003-Mailroom	N/A	N/A
B-S4-004-Office (2P)	N/A	N/A
B-S4-005-Porters Office	N/A	N/A
B-S6-004-Workshop (NPD)	N/A	N/A
B-S6-005-NHSL Office	N/A	N/A
B-S6-009-Workshop (NHSL)	N/A	N/A
B-T1-001-IT Node Room	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-71.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61%)	NO
Bedrooms_(NCM_Bedroom)	NO (-26.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50%)	NO
Bedrooms_(NCM_Bedroom)	NO (-69.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-76.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-53.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-26.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-57.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-52.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-53.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-85.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-82.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	NO (-54.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-31%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-57.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-47.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-69.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-36%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-77.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-48.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.5%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-39%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-64%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-48.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-35.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.6%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-64.3%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-52.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-48.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-68.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-62.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-45.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.7%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	NO (-67.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-58.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-56.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-70.7%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-66.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-18.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.8%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-54.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-62.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.3%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-46.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-54.1%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-44.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.5%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-48.4%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-64.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49.8%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-67%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-88.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-75.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51%)	NO
Bedrooms_(NCM_Bedroom)	NO (-80.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-63.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-61.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-72.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64%)	NO
Bedrooms_(NCM_Bedroom)	NO (-77.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-69%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-69.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-72.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-34.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-59.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-35.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-66.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-79.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-82.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-14.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-64.2%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-46.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.7%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.1%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-63.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-70%)	NO
Bedrooms_(NCM_Bedroom)	NO (-49%)	NO
Bedrooms_(NCM_Bedroom)	NO (-47.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-53.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-44.1%)	NO
Bedrooms_(NCM_Bedroom)	NO (-55.4%)	NO
Bedrooms_(NCM_Bedroom)	NO (-78.9%)	NO
Bedrooms_(NCM_Bedroom)	NO (-65.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-47.3%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.3%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-50%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-94.9%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-55.8%)	NO
Bedrooms_(NCM_Bedroom)	NO (-60.6%)	NO
Bedrooms_(NCM_Bedroom)	NO (-50.5%)	NO
Bedrooms_(NCM_Bedroom)	NO (-51.9%)	NO
Bedrooms_(NCM_Bedroom)	N/A	N/A
Bedrooms_(NCM_Bedroom)	NO (-52.5%)	NO
Clinic_(NCM_Consulting)	N/A	N/A
Clinic_(NCM_Consulting)	N/A	N/A
Clinic_(NCM_Consulting)	NO (-45.8%)	NO
Consulting_(NCM_Consulting)	NO (-63.3%)	NO
Consulting_(NCM_Consulting)	N/A	N/A
Consulting_(NCM_Consulting)	N/A	N/A
Consulting_(NCM_Consulting)	N/A	N/A
Consulting_(NCM_Consulting)	NO (-81.1%)	NO
Consulting_(NCM_Consulting)	NO (-54.8%)	NO
Consulting_(NCM_Consulting)	NO (-64.6%)	NO
Consulting_(NCM_Consulting)	NO (-91.2%)	NO
Consulting_(NCM_Consulting)	NO (-81.1%)	NO
Consulting_(NCM_Consulting)	NO (-64.3%)	NO
Consulting_(NCM_Consulting)	NO (-63.5%)	NO
Consulting_(NCM_Consulting)	NO (-81.1%)	NO
Dental_(NCM_A&E_Consulting)	N/A	N/A
Dining_(NCM_Eating/Drinking)	NO (-37.7%)	NO
Dining_(NCM_Eating/Drinking)	NO (-62.4%)	NO
Dining_(NCM_Eating/Drinking)	NO (-40.9%)	NO
Dining_(NCM_Eating/Drinking)	NO (-64.3%)	NO
Dining_(NCM_Eating/Drinking)	NO (-79.6%)	NO
Dining_(NCM_Eating/Drinking)	NO (-61.5%)	NO
Dining_(NCM_Eating/Drinking)	N/A	N/A
Dining_(NCM_Eating/Drinking)	NO (-63.2%)	NO
Examination_(NCM_Consulting)	NO (-75%)	NO
Examination_(NCM_Consulting)	NO (-75.2%)	NO
Examination_(NCM_Consulting)	NO (-76%)	NO
Examination_(NCM_Consulting)	NO (-74.6%)	NO
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.3%)	NO
Examination_(NCM_Consulting)	NO (-33.4%)	NO
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.2%)	NO
Examination_(NCM_Consulting)	NO (-64.3%)	NO
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	NO (-45.1%)	NO
Examination_(NCM_Consulting)	NO (-55.8%)	NO
Examination_(NCM_Consulting)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	NO (-74.4%)	NO
Examination_(NCM_Consulting)	N/A	N/A
Examination_(NCM_Consulting)	NO (-75.3%)	NO
Examination_(NCM_Consulting)	NO (-75.7%)	NO
Injection_(NCM_A&E_Consulting)	N/A	N/A
Injection_(NCM_A&E_Consulting)	N/A	N/A
Injection_(NCM_A&E_Consulting)	N/A	N/A
Interview_(NCM_Offices)	NO (-85.8%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-70%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-85.3%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-71.8%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-58%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	NO (-72.4%)	NO
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
Interview_(NCM_Offices)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IPS_(NCM_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	N/A	N/A
IT_(NCM_Office_IT)	NO (-33.3%)	NO
Laboratory_(NCM_Laboratory)	N/A	N/A
Laboratory_(NCM_Laboratory)	N/A	N/A
Laboratory_(NCM_Laboratory)	NO (-35.5%)	NO
Laboratory_(NCM_Laboratory)	N/A	N/A
Laboratory_(NCM_Laboratory)	NO (-33.9%)	NO
Laboratory_(NCM_Laboratory)	NO (-49.6%)	NO
Laboratory_(NCM_Laboratory)	NO (-55.5%)	NO
Laboratory_(NCM_Laboratory)	N/A	N/A
Library_(NCM_Classroom)	N/A	N/A
Library_(NCM_Classroom)	N/A	N/A
Library_(NCM_Classroom)	NO (-85.5%)	NO
Lounge_(NCM_Waiting)	NO (-60.7%)	NO
Lounge_(NCM_Waiting)	NO (-77.2%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	NO (-78.9%)	NO
Lounge_(NCM_Waiting)	NO (-56.1%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	NO (-60.7%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Lounge_(NCM_Waiting)	NO (-75.9%)	NO
Lounge_(NCM_Waiting)	NO (-39.7%)	NO
Lounge_(NCM_Waiting)	NO (-75.9%)	NO
Lounge_(NCM_Waiting)	NO (-66.2%)	NO
Lounge_(NCM_Waiting)	NO (-54.6%)	NO
Lounge_(NCM_Waiting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	NO (-38%)	NO
Meeting_(NCM_Office_Meeting)	NO (-68.3%)	NO
Meeting_(NCM_Office_Meeting)	NO (-60.2%)	NO
Meeting_(NCM_Office_Meeting)	NO (-53.7%)	NO
Meeting_(NCM_Office_Meeting)	NO (-33.1%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Meeting_(NCM_Office_Meeting)	N/A	N/A
Meeting_(NCM_Office_Meeting)	N/A	N/A
Office_(NCM_Office)	NO (-18.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-53.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-69.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-52.8%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-71.2%)	NO
Office_(NCM_Office)	NO (-85.6%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-81.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-83.7%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-81.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-54%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-46.5%)	NO
Office_(NCM_Office)	NO (-78.5%)	NO
Office_(NCM_Office)	NO (-67.3%)	NO
Office_(NCM_Office)	NO (-61.5%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-77%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-73.1%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-62.1%)	NO
Office_(NCM_Office)	NO (-26.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-11.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-50.2%)	NO
Office_(NCM_Office)	NO (-34.2%)	NO
Office_(NCM_Office)	NO (-33%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-32.6%)	NO
Office_(NCM_Office)	NO (-49.6%)	NO
Office_(NCM_Office)	NO (-80.9%)	NO
Office_(NCM_Office)	NO (-47.8%)	NO
Office_(NCM_Office)	NO (-21.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-61.3%)	NO
Office_(NCM_Office)	NO (-56.6%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-65.9%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-68.8%)	NO
Office_(NCM_Office)	NO (-73.6%)	NO
Office_(NCM_Office)	NO (-90.8%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-52.3%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-78.1%)	NO
Office_(NCM_Office)	NO (-56.8%)	NO
Office_(NCM_Office)	NO (-79.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-37.1%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-51.2%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-56.8%)	NO
Office_(NCM_Office)	NO (-31.9%)	NO
Office_(NCM_Office)	NO (-68.6%)	NO
Office_(NCM_Office)	NO (-41.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-76.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	NO (-69.7%)	NO
Office_(NCM_Office)	N/A	N/A
Office_(NCM_Office)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Operating_(NCM_Operating_Theatre)	N/A	N/A
Pantry_(NCM_Cupboard)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Preparation_(NCM_A&E_Consulting)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Reception_(NCM_Reception)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-70.6%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-71%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-69.7%)	NO
Recovery_(NCM_Wards_Patients)	NO (-71.7%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	NO (-70.6%)	NO
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A
Recovery_(NCM_Wards_Patients)	N/A	N/A

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Recovery_(NCM_Wards_Patients)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	NO (-42.8%)	NO
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	NO (-25.7%)	NO
Seminar_(NCM_Lecturetheatre)	NO (-14.3%)	NO
Seminar_(NCM_Lecturetheatre)	NO (-24.4%)	NO
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Seminar_(NCM_Lecturetheatre)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-84.6%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-87.3%)	NO
Staff_(NCM_Meeting)	NO (-27.5%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-62.3%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-36.5%)	NO
Staff_(NCM_Meeting)	N/A	N/A
Staff_(NCM_Meeting)	NO (-67.5%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-65.3%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-60.1%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-52.2%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Treatment_(NCM_Treatment)	NO (-74.8%)	NO
Treatment_(NCM_Treatment)	NO (-74.6%)	NO
Treatment_(NCM_Treatment)	NO (-36.8%)	NO
Treatment_(NCM_Treatment)	NO (-30.7%)	NO
Treatment_(NCM_Treatment)	NO (-57.5%)	NO
Treatment_(NCM_Treatment)	NO (-56.8%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-33.9%)	NO
Treatment_(NCM_Treatment)	NO (-30.4%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-68.8%)	NO
Treatment_(NCM_Treatment)	NO (-68.7%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-67.9%)	NO
Treatment_(NCM_Treatment)	NO (-79.3%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-76.3%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-26.8%)	NO
Treatment_(NCM_Treatment)	N/A	N/A
Treatment_(NCM_Treatment)	NO (-28.7%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-33.3%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-68.2%)	NO
Waiting_(NCM_Waiting)	NO (-32.8%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-69.3%)	NO
Waiting_(NCM_Waiting)	NO (-69%)	NO
Waiting_(NCM_Waiting)	NO (-63.5%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-57.1%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-34%)	NO
Waiting_(NCM_Waiting)	NO (-42%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	NO (-67.1%)	NO
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Waiting_(NCM_Waiting)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-65.1%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-52.2%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-74.1%)	NO
Ward Areas_(NCM_Wards_Patients)	NO (-98.7%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-78.9%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-70.3%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Ward Areas_(NCM_Wards_Patients)	NO (-20.2%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-63.6%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	NO (-58.1%)	NO
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
Ward Areas_(NCM_Wards_Patients)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
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X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A
X-Ray/Ultrasound/Gamma/MRI/CT_(NCM_Diagnostic_Imaging)	N/A	N/A

Criterion 4: The performance of the building, as built, should be consistent with the BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m²]	38712	38712
External area [m²]	37745.3	37745.3
Weather	EDI	EDI
Infiltration [m³/hm²@ 50Pa]	5	5
Average conductance [W/K]	9691.12	13294.9
Average U-value [W/m²K]	0.26	0.35
Alpha value* [%]	12.81	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
100	**C2 Residential Inst.: Hospitals and Care Homes**
	C2 Residential Inst.: Residential schools
	C2 Residential Inst.: Universities and colleges
	C2A Secure Residential Inst.
	Residential spaces
	D1 Non-residential Inst.: Community/Day Centre
	D1 Non-residential Inst.: Libraries, Museums, and Galleries
	D1 Non-residential Inst.: Education
	D1 Non-residential Inst.: Primary Health Care Building
	D1 Non-residential Inst.: Crown and County Courts
	D2 General Assembly and Leisure, Night Clubs and Theatres
	Others: Passenger terminals
	Others: Emergency services
	Others: Miscellaneous 24hr activities
	Others: Car Parks 24 hrs
	Others - Stand alone utility block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	51.15	34.97
Cooling	5.91	2.64
Auxiliary	17.99	14.34
Lighting	33.43	25.53
Hot water	71.61	33.52
Equipment*	116.18	116.18
TOTAL**	**129.25**	**110.99**

* Energy used by equipment does not count towards the total for calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	1.68	0
Wind turbines	0	0
CHP generators	50.85	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Indicative Target
Heating + cooling demand [MJ/m²]	140.02	141.89
Primary energy* [kWh/m²]	144.16	193.97
Total emissions [kg/m²]	26.2	35.5

* Primary energy is net of any electrical energy displaced by CHP generators, if applicable.

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	30	0	0.6	0	20.8	0.91	0	0.97	0
	Notional	37.6	0	12.5	0	13.1	0.87	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	180.3	0	2.6	0	1.6	0.91	0	0.97	0
	Notional	228.8	0	76.2	0	1.6	0.83	0	----	----
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	123.8	0	2.2	0	12.7	0.91	0	0.97	0
	Notional	159.9	0	53.3	0	12.8	0.83	0	----	----
[ST] Fan coil systems, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	9.4	250.1	0.4	21	26.2	0.87	3.23	0.97	4.09
	Notional	28	168.7	9.3	12.1	34.3	0.83	3.79	----	----
[ST] Single-duct VAV, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	1.9	655.1	0.2	68	99.7	0.7	2.61	0.97	4.09
	Notional	4.3	417.4	1.4	29.8	87.8	0.83	3.79	----	----

Key to terms

Heat dem [MJ/m2] = Heating energy demand
Cool dem [MJ/m2] = Cooling energy demand
Heat con [kWh/m2] = Heating energy consumption
Cool con [kWh/m2] = Cooling energy consumption
Aux con [kWh/m2] = Auxiliary energy consumption
Heat SSEFF = Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER = Cooling system seasonal energy efficiency ratio
Heat gen SSEFF = Heating generator seasonal efficiency
Cool gen SSEER = Cooling generator seasonal energy efficiency ratio
ST = System type
HS = Heat source
HFT = Heating fuel type
CFT = Cooling fuel type

Key Features

The BCO can give particular attention to items with specifications that are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.2	BDRM0000:Surf[3]
Floor	0.2	0.2	BDRM0000:Surf[0]
Roof	0.15	0.15	FLTB0001:Surf[0]
Windows, roof windows, and rooflights	1.5	1.6	BDRM0000:Surf[1]
Personnel doors	1.5	2.19	CRCL0309:Surf[1]
Vehicle access & similar large doors	1.5	-	No Vehicle access doors in building
High usage entrance doors	1.5	-	No High usage entrance doors in building

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

4.7 Future Actions

The following details the future action for the development of the Energy Model during the detail design and construction stage:

- Update the geometry
- Update design information
- Simulate for building regulation compliance, check BREEAM Ene01
- Simulate the operational energy model

4.8 CHP Utilisation Strategy

4.8.1 Introduction

This document describes the operational strategy for the new CHP unit installed as part of the overall energy producing plant at the new facility. The strategy being to arrange the plant integration into the Energy supplies of the building to achieve maximum possible usage and hence effectiveness of the CHP unit.

4.8.2 Current Plant Proposals

The CHP unit is designed to be the lead heat provider with boilerplant utilised as second stream provider where additional heat over CHP's max contribution is insufficient to meet the load or where the CHP is unavailable due to servicing etc.

The CHP plant has been selected to not only provide the necessary performance criteria to allow the design to meet Scottish Building Regulations Section 6 requirements. It has also been selected on the basis of ensuring optimum overall capacity and usage, the issue being that the currently available CHP units have a turndown aspect in terms of capacity output of 50%. The selection of this unit, which has a heat maximum capacity of 654kW and hence for the purpose of this study a turndown to 327kW reflects this sizing strategy.

To put this into perspective, the following demonstrates the relevant plant sizing compared to the CHP output.

1) Current operational boilerplant capacity 6400kW, 327kW CHP relates to 5.1% of capacity.
2) Current predicted maximum heating load for boilers 5600kW, 327kW CHP related to 5.8% of maximum estimated boiler load.

4.8.3 Current Heat Loads

The CHP heating output is taken direct to the main heating header and is thus available to contribute to all of the heating loads which are:-

- Heating circuits feeding room heat emitters
- Heating circuits serving air handling units
- Heating circuits serving domestic hot Water primary heating

4.8.4 Predicted System Loads

In order to review the estimated usage we have received the likely load patterns of the various components of the main heating loads, which are:-

1) Main Heating,

Maximum load (excluding air loading)1550kW at external design temp of -5.9°C. Thus with a room temperature of say average 21°C we should still have 327kW of heat input required until external temperature is 19°C and above.

2) Domestic Hot Water Load,

The hot water system capacity equals to a 1000kW input which a 327kW input constitutes 30% of the required load. However the Hot Water is user driven and as such we are suggesting that this load in real terms will only be available between by 0600 and 2000 hours.

3) Ventilation Load,

Given that we require to pre-heat the supply air being provided throughout the hospital, we have estimated that excluding Theatres the remaining air volume would increase by some 2.3°C if the entire 327kW was applied to the heating load alone. Given that the off coil temperature to the various systems should be around 20°C we have therefore reviewed the weather data for the period outside of the provided Hot Water demand cycle i.e. between 0600 and 2200 hours.

4) The pipework distribution system will have standing losses which would represent circa 5% over the whole system, this equates to 15kw of the 327Kw available.

We have then reviewed the number of hours when we could expect the external temperature to exceed 19°C. (See Appendix 1)

The results are:-

Hours exceeding 19°C	26 hours/ annum
Time period	May to August

Following discussions with a CHP manufacturer, it has been indicated that the CHP will require approximately 4.5 weeks duration of maintenance over the course of a year. With careful planning of the maintenance schedule the main servicing could occur during peak periods when external ambient is likely to exceed 19°C. This strategy would then ensure that the CHP is continuously available when the ambient temperatures are below 19°C.

4.8.5 Conclusion

From these studies we would conclude that the current system provides a robust and practical plant sizing strategy. A larger unit would in all probability given the 50% turndown ratio have a much lower usage factor. Likewise, a small unit wouldn't meet the Scottish Building Regulations Section 6 requirements and multiple smaller units could only offer a reduction on what is a very small annual percentage usage figure but with increased maintenance costs and potentially longer unavailability times due to regular ongoing maintenance issues.

In effect the system is utilising the air handling units as air cooled heat dumps but in an energy effective way as we are recycling this energy.

4.8.6 Buffer Vessel

Notwithstanding all of the above the system shall be configured to include two buffer vessels.

The buffer vessels shall comprise two thermal stores (2 x 15,000 litres) together with all controls, sensors and pumps to allow the vessels to operate in conjunction with the heating system and ensure that the CHP is the lead heat source and will limit the risk of CHP shutdown.

An emergency engine cooling unit shall also be provided in conjunction with the buffer vessels.

4.8.7 Appendix 1 – Edinburgh Weather – Hours Between 19ºC (1900h-0600h)

RHSC - Edinburgh Weather File Time when Temperature > 19degs between 1900h-0600h			
DATE	**TIME**	**TEMPERATURE**	**Total Hours**
Mon, 02/May	19:00	19.1	26
Mon, 28/May	19:00	20.7	
	20:00	20	
Wed, 30 May	19:00	20.4	
	20:00	20.9	
Sun, 24 June	19:00	21	
	20:00	20.4	
Mon, 25 June	19:00	22	
	20:00	20.6	
	21:00	19.1	
Tues, 26 June	20:00	19.4	
Mon, 09 July	19:00	19.1	
Thurs, 19 July	19:00	21.4	
	20:00	19.9	
	21:00	19.7	
Fri, 20 July	19:00	24.9	
	20:00	23.6	
	21:00	21.8	
Sat, 21 July	19:00	19.2	
Sun, 22 Jul	19:00	19.4	
	20:00	18.5	
Wed, 25 Jul	19:00	19.5	
	20:00	19	
Mon, 06 Aug	19:00	19.6	
	20:00	19.2	
Mon, 27 Aug	19:00	19.3	

5. ELECTRONIC FILE ATTACHMENTS

Due to the nature and size of these documents they require to be transmitted in electronic format, these are:

5.1 RHSC DCN IHS Lothian Energy Calculations – Financial Close - IHSL-XX-XX-DC-4_10_1

5.2 RHSC DCN IHS Lothian Energy Model Input Data – Financial Close - IHSL-XX-XX-DC-4_10_2

5.3 RHSC DCN IHS Lothian Operational Energy Model – Financial Close - IHSL-XX-XX-DC-4_10_3

From: Liane Edwards-Scott [auto-reply-lhr@[redacted] on behalf of Liane Edwards-Scott
Sent: 28 October 2014 08:20
To: Liane Edwards-Scott
Subject: BMCE-GC-001400: Re: PCP 4.10 ACNXREF<eTrzvyLdMgMj6R6KhIJJSB>

You have received a new **General Correspondence: BMCE-GC-001400**

Project: RHSC & DCN (PB)
Type: General Correspondence
Mail Number: BMCE-GC-001400
To: **Liane Edwards-Scott, Brookfield Multiplex Construction Europe**
Maureen Brown, Mott MacDonald Ltd (Head Office UK)
Graeme Greer, Mott MacDonald Ltd (Head Office UK)
Mr Kamil Kolodziejczyk, Mott MacDonald Ltd (Head Office UK)
Sorrel Cosens, NHS Lothian
NHSL RHSC + DCN, NHS Lothian
Cc: Mr Panya Upama, Bouygues E&S FM
Mr John Ballantyne, Brookfield Multiplex Construction Europe
Mr Benjamin Press, Brookfield Multiplex Construction Europe
Mr Paul Serkis, Brookfield Multiplex Construction Europe
Mr Chris Mackay, Burness Paull
Christopher Mackay, Burness Paull
Mr Richard Osborne, Macquarie Capital Group Limited
From: L Edwards-Scott, Brookfield Multiplex Construction Europe
Sent: 28/10/2014 8:20:10 AM GMT (GMT +00:00)
Attribute 1: Stage 2 - Preferred Bid
Attribute 2: 01 Employer's Requirements
Status: N/A
Subject: **Re: PCP 4.10**

Apologies, wrong attachment last time (thanks Mo).

From: L Edwards-Scott
Sent: 27/10/2014 2:58:51 PM GMT (GMT +00:00)
To: Maureen Brown, Graeme Greer, Kamil Kolodziejczyk, Sorrel Cosens, NHSL RHSC + DCN
Cc: Panya Upama, John Ballantyne, Benjamin Press, Paul Serkis, Chris Mackay, Christopher Mackay, Richard Osborne
Mail Number: BMCE-GC-001399
Subject: PCP 4.10

Please see attached proposed final draft for review.
Regards
LE

Liane Edwards-Scott *ARB*

File Attachment
4.10 Sustainability and Energy Model - Issue 5.pdf

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From: Mr Ken Hall - Brookfield Multiplex Construction Europe <[redacted] on behalf of Mr Ken Hall - Brookfield Multiplex Construction Europe
Sent: 19 January 2015 09:54
To: Maureen Brown - Mott MacDonald Ltd (Head Office UK); Ms Janice Mackenzie - NHS Lothian
Cc: Colin MacRae - Mott MacDonald Ltd (Head Office UK); Mr David Stillie - Mott MacDonald Ltd (Head Office UK); Mr Stewart McKechnie - Wallace Whittle
Subject: Bedroom Ventilation: HAI Scribe Confirmation

As per meeting of Tuesday 13.01.15 and our request for clarity on negative / positive pressure regime within the bedrooms, we attach the sketches distributed at the meeting and seek confirmation /acceptance from the NHS review with infection control.

Thanks

Ken

Lothian NHS Board

RHSC + DCN – Little France
56 Canaan Lane
Edinburgh
EH10 4SG

Telephone 0131 536 5061

www.nhslothian.scot.nhs.uk

Date 5 March 2014
Our Ref RHSC/DCN

PRIVATE & CONFIDENTIAL
John Ballantyne
Integrated Health Solutions Lothian
c/o New South Glasgow Hospitals
Hardgate Road
Glasgow
G51 4SX

Dear John

Royal Hospital for Sick Children and Department of Clinical Neurosciences project (the "Project")

Appointment of Integrated Health Solutions Lothian ("IHSL") as preferred bidder ("Preferred Bidder Appointment")

On behalf of and as authorised by the Finance and Resources Committee of Lothian Health Board (the "**Board**") on 5th March 2014, I am pleased to advise you that:

(a) IHSL's Final Tender submitted on 13 January 2014, as clarified and/or amended by the clarification responses set out in Schedule Part 5 *(Clarifications in respect of IHSL's Final Tender)* of this Preferred Bidder Appointment, has been evaluated as the most economically advantageous Final Tender; and

(b) subject to IHSL and each member of its consortium accepting the conditions set out in this Preferred Bidder Appointment including the attached Schedules to this Preferred Bidder Appointment,

the Board has approved the recommendation to appoint IHSL as the Preferred Bidder for this Project on the basis of its Final Tender, the terms of which were set out in the Invitation to Submit Final Tender.

It shall be a condition of IHSL's Preferred Bidder Appointment that if:

(a) IHSL fails to:

(i) comply with the conditions of this Preferred Bidder Appointment, as set out in the Schedules to this Preferred Bidder Appointment; and

(ii) remedy such failures as described in paragraph (a)(i) above within a reasonable

period notified by the Board; and/or

(b) any of the executed certificates, including but not limited to Appendix B(iii) *(Due Diligence Certification),* Appendix H *(Certificate of Non Collusion and Non-Canvassing),* Appendix H *(Certificate of Acceptance of Contractual Terms*) of the Invitation to Submit Final Tenders, included in IHSL's Final Tender are materially incorrect or no longer valid,

the Board shall be entitled to terminate this Preferred Bidder Appointment and treat IHSL's Final Tender as having been withdrawn.

Execution of Preferred Bidder Appointment

By signing this Preferred Bidder Appointment IHSL and each member of its consortium acknowledge and agree that this Preferred Bidder Appointment does not, and is not intended to, create a contractual obligation on the Board to enter into the Final Tender (Bidder B) NPD Project Agreement or any other contractual arrangement.

Please confirm IHSL's and each member of IHSL's consortium acceptance of this Preferred Bidder Appointment by countersigning and returning a copy of this Preferred Bidder Appointment to me by email not later that 4.00pm on Friday 7 March 2014 and provide the original hard copy Preferred Bidder Appointment by post.

In accordance with the Invitation to Submit Final Tender, the Board reserves the right to abandon the procurement process, including Preferred Bidder discussions, at any time without awarding a contract to IHSL. In particular, the Board may require to do so in the event of a procurement challenge being raised by an unsuccessful bidder between issuance of its standstill letters under Regulation 32 of the Public Contracts (Scotland) Regulations 2012 and Financial Close.

Way Forward

Pending receipt of this signed Preferred Bidder Appointment, the Board looks forward to working with IHSL as Preferred Bidder, starting with an informal planning meeting with the City of Edinburgh Council at 2.00pm on Tuesday 11th March (venue to be confirmed).

The Board hopes that IHSL will be open to discussing the co-location of key individuals in the Project offices in the period up to Financial Close. The Board proposes to launch work with IHSL formally at a Project Team Meeting at 56 Canaan Lane on the morning of Thursday 13th March; please make immediate contact with Sorrel Cosens, on [redacted] to confirm arrangements for this.

The capitalised terms used within this Preferred Bidder Appointment shall have the same meaning ascribed to them in the Invitation to Submit Final Tender.

Yours sincerely

[redacted]

Brian Currie
Project Director

IN WITNESS WHEREOF these presents typewritten on this and the preceding 2 pages together with the Schedule in 5 Parts are executed on behalf of IHSL and its consortium members that they agree to the terms of this Preferred Bidder Appointment:

For and behalf of Integrated Health Solutions Lothian by [Director/Company Secretary/authorised signatory]

at on

in the presence of:

.....	.....
Signatory	Witness Signature
	.....
	Witness Full Name (print)
.....	.....
Signatory's Full Name (print)	.....
	.....
	Witness Address (print)

For and behalf of Macquarie Capital Group Limited
by [Director/Company Secretary/authorised signatory]

at on

in the presence of:

.....

Signatory

.....
Signatory's Full Name (print)

.....
Witness Signature

.....
Witness Full Name (print)

.....

.....

.....
Witness Address (print)

For and behalf of Brookfield Multiplex Construction Europe Limited by [Director/Company Secretary/authorised signatory]

at on

in the presence of:

.....

Signatory

.....
Signatory's Full Name (print)

.....
Witness Signature

.....
Witness Full Name (print)

.....

.....

.....
Witness Address (print)

For and behalf of Bouygues E&S FM UK Limited by
[Director/Company Secretary/authorised signatory]

at on

in the presence of:

.....

Signatory

.....

Signatory's Full Name (print)

.....

Witness Signature

.....

Witness Full Name (print)

.....

.....

.....

Witness Address (print)

Schedules

Schedule Part 1

Terms of Preferred Bidder Appointment

1.	Description	General Issues
1.1	Programme	IHSL shall use its best endeavours to diligently progress the Project to Financial Close on 2nd October 2014 and thereafter use its best endeavours to achieve a Completion Date of 17th February 2017. IHSL shall further develop and agree the programme set out in Schedule Part 2 *(Preferred Bidder to Financial Close Programme)* of this Preferred Bidder Appointment as a key project management tool in collaboration with the Board. IHSL may amend such programme from time to time subject to the Board's approval, such approval not to be unreasonably withheld or delayed where amendments to such programme are required for reasons out with the control of IHSL or members of its consortium.
1.2	Amendments to Final Tender	IHSL shall not be permitted to make any amendments to its Final Tender except where provided for within this Preferred Bidder Appointment. IHSL acknowledges and accepts that the rules of Competitive Dialogue only permit fine tuning and clarification of IHSL's Final Tender at Preferred Bidder stage as opposed to material amendments which may have a commercial impact in relation to IHSL's Final Tender.
2.		**Legal/Contractual Issues**
2.1	Final Tender (Bidder B) NPD Project Agreement and Final Tender (Bidder B) Payment Mechanism.	IHSL shall work with the Board to develop, agree and finalise the outstanding issues set out in Schedule Part 3 *(IHSL outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment and Schedule Part 4 *(IHSL's gaps list in relation to the Final Tender (Bidder B) NPD Project Agreement)* in respect of the Final Tender (Bidder B) NPD Project Agreement and Final Tender (Bidder B) Payment Mechanism.
2.2	Junior finance, shareholder and corporate documentation	IHSL shall use its best endeavours to diligently progress the junior finance documentation, shareholder documentation and other corporate documentation, including the NPD Articles of Association. IHSL shall provide the Board with drafts of such documentation for review in order to permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close.
2.3	Sub-contract documentation	IHSL shall use its best endeavours to diligently progress the Contractor, Service Provider and Key-Sub-contractor sub-contract documentation based upon the final form Final Tender (Bidder B) NPD Project Agreement and heads of terms submitted as part of the Final Tender, together with any relevant interface agreement and professional team appointments. IHSL shall provide the Board with drafts of such documentation for review in order to permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close.

2.4	Finance documentation	IHSL shall use its best endeavours to diligently progress the finance documentation with the appointed Funder post funding competition, together with all related Funder conditions precedent. IHSL shall work with the Board to produce or agree drafts of such documentation that will be acceptable to the Board and may be produced or agreed as part of the funding competition. IHSL shall permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close.
2.5	Due diligence reports	IHSL shall use its best endeavours to diligently progress the final due diligence reports on behalf of the Funder's legal adviser, Funder's technical adviser and Funder's insurance adviser. IHSL shall keep the Board appraised of developments in respect of this documentation in order that any issues which may arise may potentially be addressed in good time prior to Financial Close in order that Financial Close is not delayed. Given the extensive Funder due diligence carried out by IHSL during the Dialogue Period, the Board is not expecting (nor is able to address) material amendments to the Final Tender (Bidder B) NPD Project Agreement at Preferred Bidder stage. IHSL shall provide the Board with drafts of such documentation for review in order to permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close.
2.6	Legal opinions	IHSL shall use its best endeavours to diligently progress all relevant legal opinions which may be required as conditions precedent to the finance documents in good time prior to Financial Close. Where relevant, IHSL shall provide the Board with drafts of such documentation for review in order to permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close.
2.7	Independent Tester	IHSL shall use its best endeavours to diligently progress the joint appointment of the Independent Tester, including inviting tenders from a long list of prospective Independent Testers (as agreed with the Board), evaluating all compliant tenders from such long list and preparing a relevant report to the Board. IHSL shall then liaise with the Board in respect of its report in order to jointly conclude the appointment of the Independent Tester. Following appointment of IHSL as Preferred Bidder, IHSL shall develop and agree with the Board a process for identification and appointment of an Independent Tester. The Board would expect IHSL to manage the agreed process, assuming the Board has appropriate approval rights with respect to the identity, cost and terms of the proposed Independent Tester appointee.
3.		**Interface Issues**
3.1	Interface Proposals	IHSL shall use its best endeavours to diligently develop the IHSL's Interface Proposals, these being both its Project Co Proposals and Method Statements addressing the requirements of Appendix A. The Interface Proposals shall be finalised in conjunction with the Board to ensure that both parties are satisfied that the Interface Proposals robustly address the requirements of Appendix A. This shall be a key

		part of the early stages of the Preferred Bidder period.
3.2	Assistance with Interface Proposals	IHSL shall liaise with the Board and provide all necessary assistance to the Board in progressing the Interface Proposals in order that these can be negotiated and agreed between both the Board and Consort prior to Financial Close.
3.3	Amendment to Interface Proposals	IHSL to amend its Interface Proposals where such amendments are requested by Consort pursuant to the Board's parallel negotiations with Consort in order that a final form of Interface Proposals can be agreed between both Consort and the Board.
3.4	Notices	IHSL to prepare and submit to the Board all necessary notices and or Project Co Proposals/Interface Proposals in accordance with the timescales set out in Appendix A prior to Financial Close in order that construction can commence as soon as possible after Financial Close.
4.		**Design and Construction Issues**
4.1	Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)*	IHSL shall use best endeavours to reach an agreed position with the Board with regard to the specific matters listed in Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment and shall comply with any and all requirements of Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment For the avoidance of doubt, the matters listed in Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment do not represent a complete and exhaustive list of matters to be addressed prior to Financial Close and shall be actioned and completed at no cost to Board.
4.2	Petrol Station Ground Investigation	IHSL shall liaise with the Board and provide all necessary assistance to the Board in progressing Petrol Station ground investigations, particularly in relation to the scope of the ground investigation that will be designed and managed by the Board's environmental consultant, who will produce a "phase 1" and "phase 2" contaminated land risk assessment based on a proposed public open space land use.
4.3	Petrol Station Works	IHSL shall obtain necessary planning permission from The City of Edinburgh Council for the proposed temporary and permanent land uses at the Petrol Station Site e.g. potential construction traffic route during construction and final reinstatement as an area of public open space within the Board's Retained Estate. IHSL shall submit appropriate documentation to obtain such permissions including, but not limited to, risk assessments, a detailed remedial options appraisal and remediation statement which shall be produced in line with Part IIA of the Environmental Protection Act (1990) and follow best practice guidelines detailed in CLR11 (2004), BS10175:2011+A1:2013 and PAN 33. Remediation proposals shall be agreed with the Board and its environmental consultant prior to submission to The City of Edinburgh Council and if necessary, SEPA. This shall be a key part of the early stages of the Preferred Bidder period.

		Any remediation undertaken by Project Co during the Construction Phase shall be independently verified by the Board's environmental consultant and certified in accordance with the City of Edinburgh Council's planning requirements and regulations. IHSL shall use its best endeavours to diligently develop IHSL's remediation and landscaping proposals addressing the requirements of the Board's Construction Requirements. The remediation proposals and landscaping proposals shall be finalised in conjunction with the Board to ensure that both parties are satisfied that the remediation and landscaping proposals robustly address the Boards Construction Requirements. This shall be a key part of the early stages of the Preferred Bidder period. IHSL shall provide the Board with drafts of such documentation for review in order to permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close.
4.4	Technical Schedules	IHSL shall use its best endeavours to diligently develop the following IHSL technical Schedules of the Final Tender (Bidder B) NPD Project Agreement: - Schedule Part 3 *(Key Works Personnel);* - Schedule Part 6 *(Construction Matters),* including Section 1 *(Planning / Consents)*, Section 4 *(Project Co Proposals),* Section 6 *(Room Data Sheets)*, Section 8 *(Quality Plans (Design & Construction);* and - Schedule Part 7 *(The Programme);* IHSL shall use its best endeavours to diligently input to the following Board technical Schedules of the Final Tender (Bidder B) NPD Project Agreement: - Schedule Part 10 *(Outline Commissioning Programme);* and - Schedule Part 11 *(Equipment).* These technical Schedules of the Final Tender (Bidder B) NPD Project Agreement shall be finalised in conjunction with the Board to ensure that both parties are satisfied that these technical Schedules robustly address the Board's Construction Requirements. This shall be a key part of the early stages of the Preferred Bidder period.
4.5	Design Development	IHSL shall further develop their Design included within their Final Tender, with the minimum level of design requirements being those set out in the Invitation to Submit Final Tender.
4.6	Board's Construction Requirements	The Board's Construction Requirements, as set out in Section 3 *(Board's Construction Requirements)* of Schedule Part 6 of the Final Tender (Bidder B) NPD Project Agreement, shall be based upon the version issued by the Board as part of the Invitation to Submit Final Tender.
5.		**FM Issues**
5.1	Schedule Part 3	IHSL shall use best endeavours to reach an agreed position with the

	(IHSL's outstanding issues to be addressed in respect of the Project)	Board with regard to the specific matters listed in Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment and shall comply with any and all requirements of Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment. For the avoidance of doubt, the matters listed in Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment do not represent a complete and exhaustive list of matters to be addressed prior to Financial Close and shall be actioned and completed at no cost to Board.
5.2	Payment Mechanism and its calibration	IHSL shall commit to working with the Board to ensure that funders and their due diligence advisors fully understand and shall seek acceptance of the Payment Mechanism and its calibration.
5.3	Method Statements	IHSL shall use its best endeavours to diligently develop IHSL's Method Statements, as shall be set out in Section 2 *(Method Statements)* of Schedule Part 12 *(Service Requirements)* of the Final Tender (Bidder B) NPD Project Agreement, addressing the requirements of Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment. The Method Statements shall be finalised in conjunction with the Board to ensure that both parties are satisfied that the Method Statements robustly address the requirements of Schedule Part 3 *(IHSL's outstanding issues to be addressed in respect of the Project)* of this Preferred Bidder Appointment and Section 1 *(Service Level Specification)* of Schedule Part 12 *(Service Requirements)* of the Final Tender (Bidder B) NPD Project Agreement. This shall be a key part of the early stages of the Preferred Bidder period. IHSL shall provide the Board with drafts of such documentation for review in order to permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close. IHSL shall liaise with the Board and provide all necessary assistance to the Board in progressing the further development of Schedule 16 *(Change Protocol)* of the Final Tender (Bidder B) NPD Project Agreement) using the rates provided in the submission as a benchmark to produce a more detailed and Board specific costs/rates.
5.4	Energy Strategy	IHSL shall develop IHSL's Energy Strategy which shall contain as a minimum the information contained in the drafting note, in respect of the supply of Utilities to the Facilities and the operation of associated Plant, detailed in Section 1 *(Service Level Specification)* of Schedule Part 12 *(Service Requirements)* of the Final Tender (Bidder B) NPD Project Agreement. IHSL shall provide the Board with drafts of such documentation for review in order to permit the Board to carry out the necessary due diligence in respect of such documentation in good time prior to Financial Close
5.5	FM Schedules	IHSL shall use its best endeavours to diligently develop the following IHSL FM Schedules set out in the Final Tender (Bidder B) NPD Project

		Agreement: - Schedule Part 12 *(Service Requirements),* including Section 2 *(Method Statements),* Section 3 *(Service Quality Plan), [*Section 4 *(Energy Strategy)]* (which requires to be added to the Final Tender (Bidder B) NPD Project Agreement); and - Appendices to Schedule Part 16 *(Change Protocol).* These FM Schedules shall be finalised in conjunction with the Board to ensure that both parties are satisfied that the FM Schedules robustly address the Board's Construction Requirements. This shall be a key part of the early stages of the Preferred Bidder period.
5.6	Catering Strategy	IHSL shall liaise with the Board and provide all necessary assistance to the Board in the development of the implications of a revised Catering Strategy which includes the catering production for the whole of Lothian being provided internally by a reduced number of off–site production units within Lothian. The Project's main catering supply will be provided from an off-site production unit with the requirement for storage, regeneration and finishing kitchen(s) on site. There is no increase in footprint and limited impact on services, maintenance and lifecycle anticipated as result of this change.
5.7	Service Level Specification	The Service Level Specification, as set out in Section 1 *(Service Level Specification)* of Schedule Part 12 *(Service Requirements)* of the Final Tender (Bidder B) NPD Project Agreement, shall be based upon the version issued by the Board as part of the Invitation to Submit Final Tender.
6.		**Financial Issues**
6.1	Optimisation of the Financial Model	IHSL commits to working collaboratively with the Board and the Scottish Futures Trust to optimise the Financial Model in all relevant areas, including tax and accounting treatment, such that the junior debt coupon does not exceed 9.5% and that the nominal project IRR does not exceed 9.67%.
6.2	Amendment of Financial Model relating to financial security package	IHSL commits to amend the Financial Model in order that the costs of the agreed financial security package are separately identified as an input to the Financial Model.
6.3	Amendment of Financial Model relating to audit trail	IHSL agrees that any changes to the Financial Model will be subject to full tracking by IHSL with a clear description and cell reference to denote each item of change such that it may be reviewed by the Board and its financial advisors. The impact on the Annual Service Payment of each change should be provided, with a clear audit trail in place that demonstrates how such change has been implemented. Any change will be noted in an audit trail worksheet to be included in the Financial Model in as format to be agreed with the Boards' financial advisors.
7.		**Funding Competition Issues**
7.1	Methodology of funding	IHSL commits to undertaking and completing a Preferred Bidder funding competition in accordance with the proposed methodology set

	Competition	out in IHSL's Final Tender response. This commitment includes working collaboratively with the Board, its financial advisors and the Scottish Futures Trust in the selection of a senior debt funding package that is deliverable and which offers value for money to the public sector.
7.2	Update of Financial Model	IHSL undertakes to work with the Board to update the Financial Model as necessary to reflect the senior debt funding structure developed in the period to financial close.
7.3	Equity bridge loan and letter of credit	IHSL undertakes to work with the Board and Scottish Futures Trust during the funding competition process to evaluate the options of using an equity bridge loan and the use of a letter of credit to support junior debt so that the best value for money solution for the public sector can be adopted.
8.		**Planning Issues**
8.1	Planning applications	IHSL shall use its best endeavours to diligently progress any planning applications in respect of the Project as agreed with CEC. IHSL shall keep the Board fully engaged with all progress in respect of all relevant planning developments during the Preferred Bidder stage.
8.2	Reserved matters	IHSL to discharge all relevant reserved matters and planning conditions it shall be responsible for in good time prior to Financial Close.
8.3	Planning conditions	IHSL to discharge all relevant planning conditions it shall be responsible for, as set out in Schedule Part 29 *(Consents and Board Consents)* of the Final Tender (Bidder B) NPD Project Agreement, in good time prior to Financial Close.
9.		**Insurance Issues**
9.1	Insurance inception	IHSL shall use its best endeavours to diligently progress the inception of the insurance programme as required by Clause 53 *(Insurance)* and Sections 1 and 3 Schedule Part 15 *(Insurance Requirements)* of the Final Tender (Bidder B) NPD Project Agreement with its insurance broker. IHSL shall keep both the Board and its insurance adviser Willis appraised of progress in respect of all relevant insurance developments during the Preferred Bidder stage.
9.2	Waiver of subrogation	IHSL to provide assistance to the Board in respect of the Board exploring the waiver of subrogation insurance option and the insurance arrangements for the Facilities and the RIE Facilities as a whole.
10.		**Community Benefits Issues**
10.1	Community Benefits	IHSL shall use its best endeavours to diligently progress the Community Benefits provisions set out in Clause 73 *(Community Benefits)* of the Final Tender (Bidder B) NPD Project Agreement in line with IHSL's commitments set out within its Final Tender.

Schedule Part 2

Preferred Bidder to Financial Close Programme

Please refer to the separate paper apart which sets out IHSL's Preferred Bidder to Financial Close Programme.

Schedule Part 3

IHSL's outstanding issues to be addressed in respect of the Project

IHSL's outstanding issues to be addressed in respect of the Project		
1.	**Description**	**General Issues**
1.1		N/A
2.		**Legal/Contractual Issues**
2.1	Final Tender (Bidder B) NPD Project Agreement and final Tender (Bidder B) Payment Mechanism	Please refer to Schedule Part 4 *(IHSL's gaps list in relation to the Final Tender (Bidder B) NPD Project Agreement)* of this Preferred Bidder Appointment.
3.		**Interface Issues**
3.1	Interface Proposals	IHSL shall use its best endeavours to diligently develop the IHSL's Interface Proposals, these being both its Project Co Proposals and Method Statements addressing the requirements of Appendix A. The Interface Proposals shall be finalised in conjunction with the Board to ensure that both parties are satisfied that the Interface Proposals robustly address the requirements of Appendix A. This shall be a key part of the early stages of the Preferred Bidder period.
4.		**Strategic and Management Issues**
4.1	General	IHSL to work with the Board to progress, agree and finalise, as a Method Statement(s) the proposals contained in the Final Tender in respect of performance management and review, surveys and audits, reporting, workshops and meetings in order to capture the proposed strategic and management approach
4.2	B2	IHSL to develop with the Board the proposed set of specific measurable performance mechanisms and agree a review mechanism for these.
4.3	B3	IHSL to work with the Board to develop the proposals for data collection and provision, communication and mobilisation workshops, surveys and audits, and future performance review.
4.4	B4	IHSL to work with the Board to develop a proposed schedule of meetings and work streams. IHSL to provide further details of proposed KPIs for interface.
4.5	B7	IHSL to provide the Board with further detail in respect of the proposed asset tagging of Board direct supply equipment.
4.6	B8	IHSL to work with the Board to develop the proposals for a meeting and reporting structure, including monthly status reports and the proposed liaison committee.
4.7	B10	IHSL to develop with the Board proposals for project information packs, training and knowledge sharing.

4.8	B12	IHSL to provide the Board with the draft Health and Safety Management Plan for review. IHSL to agree with the Board the KPIs to measure the implementation of health and safety management.
5.		**Design and Construction Issues**
		The following list of design and construction issues shall be incorporated into IHSL's proposals/Project Co Proposals at Financial Close:
5.1	C1	IHSL to provide to the Board, within 8 weeks of the Preferred Bidder Appointment, further details of the enhanced screening to separate adults from children at the Emergency Department ambulance entrance. IHSL to review with the Board, within 8 weeks of the Preferred Bidder Appointment, the layout of the 4 bedded bay within the children's wards. IHSL to review with the Board, within 8 weeks of the Preferred Bidder Appointment, the design of the linen bays within clinical areas.
5.2	C2	IHSL to provide to the Board, within 8 weeks of the Preferred Bidder Appointment, further details on the economic impact of the heated areas in the gardens.
5.3	C3	The extent of the anti-ligature provision is in accordance with the Board's Construction Requirements, as clarified. The Board confirms that there will be no carpet in clinical areas. The Board wishes to review with the Bidder the location and form of the external staircase at the main entrance. IHSL to provide detailed landscaping proposals for the Petrol Station Site within 8 weeks of the Preferred Bidder Appointment.
5.4	C5	The Board wishes to discuss further the opportunities for expansion of the ground floor.
5.5	C6	IHSL shall provide assurance to the Board that the colours of the proposed signage will provide clarity for the visually impaired. IHSL shall provide assurance to the Board that where it is proposed to use graphics that all issues of copyright have been addressed.
5.6	C8	IHSL shall provide to the Board, within 8 weeks of the Preferred Bidder Appointment, further details on the domestic hot water generation and storage capacity based on the occupancies and usage requirements. IHSL shall provide to the Board, within 8 weeks of the Preferred Bidder Appointment, the finalised fire strategy including sprinkler coverage and categorisation. IHSL shall provide to the Board, within 8 weeks of Preferred Bidder Appointment, developed UPS Load assessments for consideration by the Board.

		IHSL to provide to the Board, within 8 weeks of Preferred Bidder Appointment, developed metering strategy for consideration by the Board. IHSL to provide to the Board, within 4 weeks of Preferred Bidder Appointment, typical installation details of the wiring / containment systems that have been proposed (in particular modular wiring / pre-wired trunking / supertube) for consideration by the Board.
5.7	C9	IHSL to consider, within 4 weeks of Preferred Bidder Appointment, maintenance and infection control issues with their significant use of LED light fittings. IHSL to provide to the Board, within 4 weeks of Preferred Bidder Appointment, confirmation that their lighting design will be in compliance with LG2 for lighting illumination levels and not going up to 10% below minimum stated values. At this time, IHSL also to confirm to the Board that this has no impact on their Energy Targets.
5.8	C10	IHSL to provide to the Board details of CHP optimisation strategy during Preferred Bidder stage with respect to controls, ranking, heat and electrical load matching, heat rejection, efficiencies and number of system start-ups. Proposals shall be provided to the Board for its review and acceptance prior to financial close. IHSL to provide to the Board details of motorised valves on water distribution to toilets during Preferred Bidder stage. IHSL to provide to the Board system description and schematic drawings for its review and acceptance, and confirm proposals comply with SHTM 04-01, with particular emphasis on water supplies to patient bedrooms, prior to Financial Close. IHSL to confirm to the Board prior to Financial Close that "good quality" CHPQA registration and certification will be obtained for the combined heat and power (CHP) installation. IHSL to confirm it will continue to develop a 'bespoke' energy model for the Facilities, in line with Appendix F *(Thermal and Energy Model Parameters)* of the Invitation to Submit Final Tender. IHSL also confirms that it shall work in collaboration with the Board to provide as accurate an estimated energy consumption figure, by fuel type, for the Board's annual Utilities cost forecasting. Prior to Financial Close, IHSL shall provide accurate estimates of water consumption and waste water outflows for IHSL's design solution, based on a Good Industry Practice calculation methodology, to inform the Board of annual water consumption costs for the Board's Utilities cost forecasting.
5.9	C12	The Board notes that there are a number of rooms which, whilst meeting the room areas in the Reference Design, do not meet those in the Draft Schedule of Accommodation. The Board would welcome efforts to adjust such rooms to achieve compliance with the Draft Schedule of Accommodation.
5.10	C17	IHSL s required to undertake extensive further development of storm and foul water, and SUDs systems including for the 1:1000 check for flooding. Surface drainage proposal for south east corner of the site are

		not fully developed. IHSL to further develop the car park detail with particular attention to boundary conditions. IHSL to develop and provide full detail and specification for gas membrane along with any protection required to protect buried pipework. At present IHSL allows for Radon Gas protection only.
5.11	C18	IHSL shall provide to the Board, within 8 weeks of the Preferred Bidder Appointment, the physical location, content and capacity of the new twin-gas governor arrangement. IHSL shall provide to the Board, within 8 weeks of the Preferred Bidder Appointment, further details on the dual water mains supplies. IHSL shall provide to the Board, within 8 weeks of the Preferred Bidder Appointment, the Board are keen to understand the potential to reduce energy consumption as the gas and electrical supply capacities are close to EUETS threshold. IHSL shall provide to the Board, within 8 weeks of the Preferred Bidder Appointment confirmation that his incoming HV Supply design will be in compliance with SHTM06-01 with particular reference to a 5-panel DNO HV switchboard. IHSL shall provide to the Board, within 4 weeks of the Preferred Bidder Appointment, details of the fire routing for consideration by the Board. IHSL shall provide to the Board, within 4 weeks of the Preferred Bidder Appointment details of the telecoms route from Old Dalkeith Road for consideration by the Board. IHSL shall provide to the Board, within 4 weeks of the Preferred Bidder Appointment, further details of the main supply substation and cable routes for consideration by the Board.
5.12	C19	IHSL shall work with the Board to develop and incorporate LZCT solutions and the potential use of grey water to maximise BREEAM credits to achieve the required rating of 'Excellent'.
5.13	C21	IHSL to confirm corridor widths that do not meet the NHS Requirements within 4 weeks of the Preferred Bidder Appointment.
5.14	C24	Location, use and restrictions for the temporary footpath from Car Park E to Old Dalkeith Road to the Site to be agreed within 8 weeks of the Preferred Bidder Appointment. IHSL's temporary site office storm drain connection proposed to connect into the county sewer if it is a combined drain. The county sewer is not a combined drain and IHSL will have to provide proposals for appropriate storm drain connection for its temporary site office within 8 weeks of the Preferred Bidder Appointment. IHSL to agree with the Board the environmental sensitive locations in the RIE Facilities within 8 weeks of the Preferred Bidder Appointment. .
5.15	C25	IHSL to conclude before Financial Close the commissioning programme and supporting methodology. IHSL's Commissioning Programme at Task 87 - Fire Alarm runs past the Completion Date.

		IHSL to conclude the Handover Clean Protocol prior to Financial Close. IHSL to agree with the Board, prior to Financial Close, the access for the Board during the Works including access for equipment installation (Groups 2A, 2B and 3) and the Board's Contractors.
5.16	C27	Confirmation required of 18001 accreditation of principle being used as an umbrella for all parties.
5.17	C28	IHSL to further develop proposals to comply with CDM regulations and in particular its obligation as "client" pursuant to such regulations. Sections 184/185 and 263 to be further developed at Preferred Bidder stage.
5.18	Acoustics	Within 4 weeks of the date of this Preferred Bidder Appointment, the Board requires that IHSL clarifies the construction methodology for dealing with impact sound transmission through floors. The Board requires confirmation that IHSL will take the necessary measures to meet the criteria for gaining BREEAM 2011 Credit Po105 as per the BCRs. Within 4 weeks of the date of this Preferred Bidder Appointment, the Board requires that IHSL clarifies the acoustic strategy for the Department of Audiology.
5.19	Helipad	The Board wishes to discuss with IHSL the configuration of the ramp with a view to reducing the distance between the bottom of the ramp and the "hot" lift core. The Board wishes to discuss with IHSL the implications of designing the helipad to take the heavier (15 Ton) Merlin aircraft rather than the (12 Ton) S92.
6.		**FM Issues**
		The following list of facilities management issues shall be incorporated into IHSL's proposals/Method Statements at Financial Close:
6.1	D1	IHSL's Method Statement shall reflect the additional detail required by the Board that all new staff shall be required to have received Occupational Health clearance prior to commencement on the Site.
6.2	D4	IHSL shall develop a Method Statement which shall set out its approach to Environmental Management, Quality Management and Health and Safety to reflect the integrated system proposed by IHSL. The content and scope of the system shall cover the full range of the Services.
6.3	D5	IHSL shall liaise with the Board to further develop its Escalation protocol for major incidents.
6.4	D6	IHSL shall work with the Board to discuss and agree any requirement for development of Departmental SLA's proposed by ISHL in relation to IHSL's approach to interfacing with the Board for undertaking works outside access times.
6.5	D8	IHSL shall liaise with the Board to develop Business Continuity Plans to

		reflect that the Board needs to be informed immediately of any Business Continuity incidents.
6.6	D10	IHSL shall review and agree with the Board its response to NHS alarms. IHSL shall review and agree with the Board its approach to Helipad lighting maintenance. IHSL shall reflect the information provided within the Reference Bulletin-00151/BULL RES-130 with regard to window and façade cleaning within their Method Statement.
6.7	D12	IHSL shall review and agree responsibilities for legislative compliance for energy and carbon. The Board is concerned that IHSL indicated within its proposal that the responsibility sits mainly with the Board.
6.8	D15	IHSL shall review and agree the process for security clearances for staff with the Board.
7.		**Financial Issues**
7.1		N/A
8.		**Funding Competition Issues**
8.1		N/A
9.		**Planning Issues**
9.1	General	IHSL shall use its best endeavours to diligently develop IHSL's planning issues, both design development including but not restricted to the following areas: - Impression of 'big brother' on approach from the south; - Quality and detailing of 'little brother'; - Hard and soft landscaping proposals across "Hospital Square" and in the immediate environs of the building creating visual complexity, for example, 'The Willows' requiring redesign and simplification; - Arrival experience and pedestrian legibility; and - The quality of internal and external spaces. The planning issues shall be finalised in conjunction with the Board, City of Edinburgh Council and Architecture and Design Scotland to ensure that all parties are satisfied that the Planning Proposals. This shall be a key part of the early stages of the Preferred Bidder period.
10.		**Insurance Issues**
10.1		N/A

Schedule Part 4

IHSL's gaps list in relation to the Final Tender (Bidder B) NPD Project Agreement

Please refer to the separate paper apart which sets out IHSL's gaps list in relation to its Final Tender (Bidder B) NPD Project Agreement.

Schedule Part 5

Clarifications in respect of IHSL's Final Tender

The following table sets out a list of the Clarifications, Bulletins and Bulletin Responses issued by the Board and/or IHSL via Conject during the period after the submission of IHSL's Final Tender. Please note that the Board has deemed that IHSL's Final Tender has been updated and/or amended in respect of all such Clarifications, Bulletins and Bulletin Responses as set out below:

Clarifications in respect of IHSL's Final Tender			
Item	**Description**	**Raised by**	**Reference**
1	Paediatric Bio Lab Costs	Bidder B	Bulletin-00153/BULL RES-134
2	Bidder B C30	Bidder B	Bulletin-00152/BULL RES-133
3	Paediatric Bio Lab Costs	Board	Bulletin-00153
4	Bidder B C30	Board	Bulletin-00152
5	Gas Consumption Clarification - C10	Bidder B	Bulletin-00150/BULL RES-132
6	Gas Consumption Clarification - C10	Bidder B	Bulletin-00150/BULL RES-131
7	Window Cleaning Strategy - Clarification.	Bidder B	Bulletin-00151/BULL RES-130
8	Final Tender Announcement Date	Board	CLAR-00188
9	Window Cleaning Strategy - Clarification.	Board	Bulletin-00151
10	Gas Consumption Clarification - C10	Bidder B	Bulletin-00150/BULL RES-129
11	Gas Consumption Clarification - C10	Board	Bulletin-00150/BULL RES-128
12	Gas Consumption Clarification - C10	Bidder B	Bulletin-00150/BULL RES-127
13	Gas Consumption Clarification - C10	Board	Bulletin-00150
14	Financial Model Clarification	Bidder B	Bulletin-00147/BULL RES-126
15	D14 - MS Word Format	Bidder B	Bulletin-00148/BULL RES-125
16	D14 - MS Word Format	Bidder B	Bulletin-00148/BULL RES-124
17	D14 - MS Word Format	Board	Bulletin-00148
18	Final Tender Heads of Terms	Bidder B	Bulletin-00145/BULL RES-123
19	Funders' Legal Adviser	Bidder B	Bulletin-00146/BULL RES-122
20	Financial Model Clarification	Board	Bulletin-00147
21	Funders' Legal Adviser	Board	Bulletin-00146
22	Final Tender Heads of Terms	Board	Bulletin-00145
23	Final Tender Submission - Executive Summary Video	Bidder B	Bulletin-00144/BULL RES-121
24	Final Tender Submission - Executive Summary Video	Board	Bulletin-00144
25	Final Tender Submission - Executive Summary Video	Board	Bulletin-00143/BULL RES-120
26	Final Tender Submission - Executive Summary Video	Bidder B	Bulletin-00143/BULL RES-119
27	Final Tender Submission - Executive Summary Video	Board	Bulletin-00143
28	Final Tender : C31	Bidder B	Bulletin-00142/BULL RES-118
29	Appendices	Bidder B	Bulletin-00141/BULL RES-117
30	Appendices	Bidder B	Bulletin-00141/BULL RES-116
31	Final Tender : C31	Board	Bulletin-00142
32	Appendices	Board	Bulletin-00141
33	Final Tender : C4	Bidder B	Bulletin-00140/BULL RES-115
34	Final Tender : C4	Board	Bulletin-00140
35	Final Tender Finance Submission	Bidder B	Bulletin-00139/BULL RES-114
36	Final Tender Legal Submission	Bidder B	Bulletin-00138/BULL RES-113
37	Financial Submission	Bidder B	Bulletin-00137/BULL RES-112

38	Financial Submission	Board	Bulletin-00137/BULL RES-111
39	Final Tender Finance Submission	Board	Bulletin-00139
40	Final Tender Legal Submission	Board	Bulletin-00138
41	Financial Submission	Bidder B	Bulletin-00137/BULL RES-110
42	Financial Submission	Board	Bulletin-00137
43	Financial submission	Bidder B	Bulletin-00136/BULL RES-109
44	Financial submission	Board	Bulletin-00136
45	Final Tender Submission Folders	Board	Bulletin-00135

RHSC & DCN
At Little France

CONFIDENTIAL

Meeting:	**Design Steering Group**	
Location:	Canaan Lane Edinburgh	
Date and time:	14 July 2014 – 1000hrs	
Subject:	Design Steering Group 04	
Meeting Chair:	Darren Smith	BMCE
Attendees:	David Stillie	MM
	Barry McCormack	RBG
	Graeme Greer	MM
	Maureen Brown	MM
	Lorraine Robertson	HLM
	Stewart McKechnie	WW
	Jackie Sansbury	NHSL
	Stuart Davidson	NHSL
	Liane Edwards-Scott	BMCE
	Janice Mackenzie	NHSL
Apologies:	John Ballantyne	BMCE
	Brian Currie	NHSL
	Panya Upama	BYES
	Richard Osbourne	MAC
Distribution:	Anne Alexander	BYES
(inc. Attendees)	Bob Nethery	BMCE
	Ken Hall	BMCE
	Jim Miller	IF
	Tom Littlewood	GINKO
	George Miller	BMCE
	Chris Martin	BMCE
	Graham Coupe	BMCE
	Corinna Neupert	RBG

1.0 Design Steering Group		**Action**	**Target Date**
1.1	Previous minutes agreed as accurate record of events, with the exception of minutes 7.1 + 7.2, challenged by MM. Wording to read: Minutes noted as 'ADJUSTMENT' see below.		
2.0 Town Planning			
2.0	Progressing as required in line with programme. Consultation complete. NHSL to feedback on proposed responses to representations	NHSL	20/06/2014
3.0 PCP Deliverables			
3.1	The meeting was held on PCP submissions on 17.06.14. Next drafts are all in progress, some have been submitted and are also being reviewed.	BMCE	17/06/2014
3.2	MAC still to advise the design team on key deliverables required and dates for funders. Matter Outstanding.	MAC	16/05/2014
3.3	NHSL noted that C-Sheets were missing from 4.24 Drawing Lists (HLM) Post Meeting Note: This was discussed at the RDS meeting and a schedule of rooms for which C sheets are to be provided will be submitted at that meeting	HLM	
3.4	MM requested an expanded RBG 4.24 section to include some of the construction information	RBG	
4.0 PB letter 05/03/14			
4.1	Tracking matrix discussed at meeting – update to be provided on Design issues. Update provided, GG ongoing review and comment for feedback into DSG/Design Team.	MM	06/06/2014
5.0 RDD			

5.1	Draft schedule and sign of sheet provided for comment. Thereafter to be populated by BMCE. Schedule submitted by BMCE – no comment received. GG noted he considered there was a difference with RDD submission and operational sign off. GG to review and advise for further discussion on the basis of Section 9. GG noted difference between RDD sign off and Operational sign off ref clause 12.5 GG noted he would review document stamps for sign off.. Post Meeting Note: Sign off stamp produced as sent to GG, now being incorportated on drawings	GG	16/05/2014
5.2	Process of submission to be reviewed and discussed - DS and GG to meet and discuss/agree. Meeting on Monday 21 July	DS/GG	27/06/2014
5.3	MM /BMCE to set review for RDS / environmental matrix. Matter Outstanding. Post meeting note: Meeting took place NHS ask if IHSL could incorporate additional infiormation onto the RDS. IHSL to consider. A further separate meeting to be arranged to resolve	MM/BMCE	27/06/2014
6.0 Energy Strategy			
6.1	All agreed nothing to report.Subject maintained for future reporting.		
7.0 UGM Progress			
7.1	Methodology for reporting progress using red,amber, green markups to floor plans discussed with sample tabled. Agreed acceptable way to monitor progress. 'Traffic Light' Plans showing progress to end of UGM R2 discussed. NHS Noted and agreed Ewn to be provided if pressure on programme. '**ADJUSTMENT**. MM asked for adjustment. BM agreed that post metting this was changed between BC/JB and EWN was not issued.- Instead the same detail was provided by e-mail'. Post Meeting Note: UGM rounds have now been completed and a report has been provided to the board.	BMCE/NHS	ongoing
7.2	BMCE (DS) noted that the confirmation of the accuracy of the previously issued progress drawings had not been receievd from DStillie. At the previous meeting MM agreed that they would indicate also how they considered progress was being made through round 2. NHSL (BC) noted that NHSL would not provide any reports, but rather input into the process of tracking. BMCE (DS) reiterated major concern that at the end of UGM R2, a number of red (rooms not reviewed) still exist. This could impact significantly on sign off at UGM R3 as required and that a number of UGM R4's have already been noted as required.'**ADJUSTMENT** MM noted that they would not be providing a report. BC agreed and indicate only comment was sought on the UGM progress reporting provided by HLM'. A regular update meeting was to be arranged by LE to review and agree the accracy of the UGM progrees montinoring. BMCE noted that the late changes being requetsed could not be accomodated and all changes need to be made at the UGM's, not after the meeting.. This was also having an adverse affect upon strategy workstreams. NHS / BMCE / MM agreed need to work through. NHS noted that with ecxpetion of Child life and Helath other depts should be closed at final UGM's	BMCE/NHS	23/05/2014
7.3	DS echod the request that all UGM and workstream correspondence should be issued via Aconex, and no correpsondence should be issued directly to consultants. All agreed this is now taking place and item can be closed.	CLOSED	
8.0 Derogation Schedule			
8.2	Schedule to be populated for regular review at the next DSG.	BMCE	14/07/2014
9.0 Table of finishes – Samples Schedule			
9.1	Schedule to be populated for regular review at the DSG initial submission ongoing		ongoing
10.0 Fire Safety			
10.1	*All agreed nothing to report.Subject maintained for future reporting.*		
11.0 Client Design Meetings Schedule			
11.1	BC to review Helipad internally, having noted concern about NHSL direction to BMCE. DS confirmed no anticipated change from Bayards submitted spec.	NHSL	
11.3	NHSL to confirm suitable dates for Helipad visit - took place on 30.06.14	CLOSED	20/06/2014
11.4	Access Control meeting 01 scheduled to take place on 19/06/2014. Meeting took place, no need for further reporting	CLOSED	16/05/2014
11.5	Secure by design. BC meeting with Police this week, and will feedback strategy for SBD review. IHSL(WW) to review comments and advise any BREEAM impact. Comments awaited from NHSL.	NHSL	20/06/2014
11.6	FM meeting took place and considerable change to 1:50s required, now taking place.	note	

12.0 Document Distribution and Meeting Attendance			
12.1	*All agreed nothing to report.Subject maintained for future reporting.*		
13.0 Change Control			
13.1	Regular Change Control meetings now taking place every Monday. No major items to report in this forum at present.	NHS	CLOSED
13.2	NHS asked the implication on plant for changes to the theatres. WW advised plant would need to change consequently NHS confirmed change would not be pursued. Change would be requested for windows to theatres on outside walls. NHS confirmed that windows still to be investigated. HLM to advise when they can issue options. This will be recorded in the change tracker.	HLM	20/06/2014
13.3	BMCE confirmed that Rfi reports will be ciruclated for discussion at future meetings.	Note	
14.0 Programme			
14.1	Final Factual report awaited from Raeburn. RBG to review.	RBG	20/06/2014
15.0 Consultants reports			
15.1	**HLM** Issues as noted above in planning and UGM		
15.2	**WW** 'Hot Topic' RFIs to be circulated by WW this week.	WW	20/06/2014
15.3	**RBG** RBG to provide confirmation that SER certification application has been submitted.	RBG	20/06/2014
15.4	MM requested revised Civil/Structures PCP submission for review.	RBG	20/06/2014
16.0 AOB			
17.0 Date of next meeting			
17.1	11 August 2014 at 1000hrs - Canaan Lane Offices		

RHSC & DCN
At Little France

CONFIDENTIAL

Meeting: **Project Management Group Meeting**

Location: **Warlow**

Date and time: **3rd September 2014 @ 1100**

Subject: **Project Management**

Meeting Chair: **Wallace Weir**

Attendees:

Sorrel Cosens	NHSL	(SC)
Graeme Greer	NHSL	(GG)
Maureen Brown	NHSL	(MB)
Paul Serkis	IHSL	(BC)
John Ballantyne	IHSL	(JB)
Liane Edwards	IHSL	(LE)
Panya Upama	IHSL	(PU)
Sean Ferm	IHSL	(SF)
Wallace Weir	IHSL	(WW)

Apologies:

Matthieu Dannoot	IHSL	(MD)
Richard Osborne	IHSL	(RO)
Kamil Kolodziejczyk	NHSL	(KK)

Distribution (over and above attendees):

Brian Saunders	IHSL	(BS)

Number	Action	Owner	Date
1.0 Matters Arising			
1.1	1.3 - RDD Schedule being populated by IHSL. Target 05/09/14.	LE	05/09/14
1.2	1.4 - Schedule of derogations by IHSL, to be issued by 05/09/14.	LE	05/09/14
	1.4 - Schedule of derogations workshop organised for 12/09/14.	SC	-
1.3	1.6 - Board to provide delta view of updated corporate policies where possible. Under way to be completed by 05/09/14.	SC	05/09/14
1.4	1.7 - Title of Revision D/E of the BCRs partially resolved. GG to add footer identifying version and issue as a Transmittal to IHSL, including legal advisers.	GG	05/09/14
1.5	2.4 - WW to clarify Legals have been advised to include both the RDD and Table of Finishes in their gaps list.	WW	08/09/14
1.6	2.7 - Schedule Part 13 (Independent tester) to be clarified at meeting on 04/09/14.	SF	04/09/14
1.7	2.8 – Environmental Matrix issue discussed at DSG on Monday 01/09/14. Feedback from IHSL by 05/09/14.	LE	05/09/14
1.8	2.9 – Finalisation of PayMech Gross Service Units relies on issue of SoA. SoA due by 05/09/14.	LE	05/09/14
1.9	2.10 - FM – Schedules Part 12 and Part 16 – complete and submitted. Detail not yet received or reviewed by the Board. Board to confirm	SC	05/09/14

	receipt.		
2.0 Technical Schedule Tracker			
2.1	TS and PCP trackers reviewed line by line with status and commentary to be updated by IHSL.	LE / PS	05/09/14
2.2	Key works Personnel table to be updated. FM lead not required, SPV / Project Co lead representative not required.	SF	04/09/14
2.3	As planning consent has been granted Schedule Part 6, Section 1, Planning / Consents will be closed and Planning Conditions will now be tracked under Part 29. Tracker to be updated.	PS	04/09/14
2.4	BCRs sub sections D and E updates to be provided by Board by 23/09/14.	SC	23/09/14
2.5	RDS schedule on the basis of generic and specialist rooms to be proposed by IHSL for agreement by Board.	LE	10/09/14
2.6	Operation functionality caveat and related stamp to be confirmed by the Board.	GG	05/09/14
2.7	Equipment schedule to be issued by IHSL.	LE	03/09/14
2.8	Remaining Individual meetings to review PCPs to be scheduled.	SC/LE	05/09/14
2.9	Schedule of derogations to be submitted by IHSL, target 05/09/14.	LE	05/09/14
2.10	PCP 4.4 Architectural and Landscaping has a review meeting arranged for 09/09/14. Board comments in respect to this PCP to be reviewed by both the Board and IHSL prior to this meeting, as these seem to include inappropriate feedback.	SC / PS	09/09/14
3.0 Work Streams			
3.1	No comments.		
4.0 Requests for Information			
4.1	Open RFIs reviewed line by line. All parties to close open RFIs that have been addressed /superseded by subsequent work.	MB / LE	10/09/14
5.0 Programme			
5.1	Programme reference 8J to be updated to relate to construction.	PS	04/09/14
6.0 Preparation for PDG Meeting			
6.1	To be addressed at next meeting pending PDG on 12/09/14.	-	-
7.0 Schedule 31, Interface			
7.1	All 8 appendices have been submitted. Awaiting feedback from Consort at meeting arranged for 05/09/14.	-	-
8.0 FC Document Collation			
8.1	IHSL to confirm proposal / process for the collation of documents for FC. Update at next meeting	WW	10/09/14
9.0 AOB			
9.1	None		

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Design Steering Group
Action Tracker

Issue Date **24.09.14**
Issued By **L E Scott**

ITEM	ACTION	DATE RAISED	CURRENT ACTIVITY	ACTION WITH	DATE CLOSED
01	Town Planning - current conditions schedule up to date and circulated on Aconex. Board to be issued formally.	02/09/2014	Final wording being agreed for all conditions, issue to Board imminent.	IHSL/BMCE	
02	OF/FC/RDD - stamps wording to be agreed for return of all drawings	16/05/2014	Stamp wordings agreed, stamps delivery awaited.	CLOSED	19/09/2014
03	OF/FC/RDD - drawing lists to be progressed and issued.	02/09/2014	All in progress, all issued in draft to NHSL except RDD, due w/e 26/09/14.	IHSL/BMCE	
04	Environmental Data Matrix - issues with room type allocations noted.	02/09/2014	IHSL reviewed, revised PCP 4.9 reviewed.	CLOSED	19/09/2014
05	RDS - content and numbers still to be agreed. IHSL confirmed an RDS will apply to each room and will be provided during RDD as agreed.	27/06/2014	Content agreed, list issued, RDS issued for review.	CLOSED	19/09/2014
06	Board reviewed all 1:50 loaded plans and noted 23 departments with no comments, 33 depts with minor and major comments.4 depts not yet reviewed. Board/IHSL to review comments.	02/09/2014	Meeting took place 08/09/14 to discuss all comments. None required drawing updates as none were affecting Operational Funcitionality.	CLOSED	08/09/2014
07	Samples Schedule - requires to be populated further.	02/09/2014	To be populated further when sub cts appointed.	IHSL/BMCE	
08	Derogations Schedule - meeting planned 12.09.14 to review first drafts.	02/09/2014	Meeting took place ; comments received, BMCE have issued via aconex for next level of review by Board.	NHSL	
09	Secure by Design - progress required.	02/09/2014	IHSL are reviewing current situation, contact received from B Currie	IHSL/BMCE	
10	RFI reports to be reviewed in PMG meeting.	02/09/2014	Reports now reviewed weekly.	CLOSED	02/09/2014
11	Theatre windows to be issued to Board for consideration.	02/09/2014	Issued, and instruction received from NHSL	CLOSED	19/09/2014
12	DCN Courtyards - design options to be issued to the Board for consideration.	02/09/2014	Issued, instruction awaited from the Board.	NHSL	
	SPECIFIC DESIGN MATTERS				
13	**Anti Ligature** - IHSL to ensure mental health room in A1 has plasterboard ceiling.	02/09/2014	Drawing is already submitted to Board, comment to be made on drawing.	NHSL	
14	**Anti Ligature** - Board to consider reduction in scope of anti- lig windows to whole hospital.	24/09/2014	IHSL to make proposal for consideration.	IHSL	
15	**Communication spaces / street widths** - derogation sought for street width reduction at resting places. Reviewed in meeting 24/09/14	02/09/2014	Board to review interior finishes drawings submitted and markup for further discussion with IHSL	NHSL	
16	**Downstand beams / service runs** - NHSL to return comments on the downstand beams.	02/09/2014	All reviewed, NHSL accepted the proposal. Derogation to be signed off.	CLOSED	24/09/2014
17	**CHP optimisation -** NHSL to return comments on paper issued under PCP 4.10.	02/09/2014	Board to issue final comments on PCP	NHSL	
18	**Lifts** - NHSL to return comments - revised PCP issued. Possible issues surrounding FM lift sizes. Discussed at length in meeting.	02/09/2014	Comments received by Board. IHSL to confirm compliance in writing. NHSL to consider instruction required as necessary.	IHSL NHSL	
19	**Acoustics** - issue to be resolved regarding reverberation time to the atrium. Discussion ended at 2.0 seconds at 1:1 communication spaces, and maximum upper limit of 2.75 seconds. Target 2.5 seconds.	02/09/2014	ACL to redraft minor comments throughout and resubmit PCP. NHSL to consider RT's again and escalate to Project Delivery Group if necessary.	IHSL/ACL NSHL	

IHS LOTHIAN
INTEGRATED HEALTH SOLUTIONS

Design Steering Group
Action Tracker

Issue Date **24.09.14**
Issued By **L E Scott**

ITEM	ACTION	DATE RAISED	CURRENT ACTIVITY	ACTION WITH	DATE CLOSED
20	**Access for Replacement** - NHSL asked who is responsible for building 'unzip'. Motts confirmed that it is normal for the equipment supplier to provide appropriate platform.	24/09/2014	Post meeting note: BYES confirmed that all works, including the building works form part of the turn key project by the equipment supplier. BYES carry out delapidation survey pre and post and the works are guaranteed by the supplier.	CLOSED	25/09/2014
21	**ETFE** - NHSL indicated request to install rain suppressant - IHSL noted concerns which Board should consider. Agreed further discussion required.	24/09/2014	IHSL/BM to set up meeting to discuss detail further.	IHSL/BMCE	
22	**Equipment List -** NHSL indicated a number of comments on equipment list.	24/09/2014	NHSL to issue comments for IHSL review.	NSHL	
23	**Environmental Data Matrix** - NSHL intidcated some minro comments.	24/09/2014	NHSL to issue comments for IHSL review.	NSHL	
24	**MRI Chillers** - proposed locations issued to NHSL.	24/09/2014	NHSL to review and comment via workstream. Item closed in this forum.	CLOSED	25/09/2014
25	**Gauss Lines** - NHSL to provide comment.	Jun-14	NSHL to provide comment.	NSHL	
26	**Radiation Protection -** comments received from NHSL.		IHSL to review. Item closed in this forum.	CLOSED	25/09/2014
	POST FC DESIGN MATTERS				
27	**Canopies** - Board indicated intention to instruct combined canopy to ED/RIE post FC.	24/09/2014	Post Meeting Note : IHSL note that this area forms part of early works programme and request further briefing information now such that the impact can be assessed to avoid any potential delay to early phase works	NHSL	

From: BMEdinburgh DocControl [auto-reply-lhr@aconex.com] on behalf of BMEdinburgh DocControl
Sent: 29 September 2014 07:50
To: GRAHAM COUPE
Subject: BMCE-GC-001193: RE: Environmental Matrix ACNXREF<wTIpqL4GftTpZj1KhIJJSB>
Attachments: RHSC_DCN RDS Environmental Matrix- 140904.xlsx

You have received a new **General Correspondence: BMCE-GC-001193**

Project: RHSC & DCN (PB)
Type: General Correspondence
Mail Number: BMCE-GC-001193
To: Maureen Brown, Mott MacDonald Ltd (Head Office UK)
Graeme Greer, Mott MacDonald Ltd (Head Office UK)
Colin MacRae, Mott MacDonald Ltd (Head Office UK)
Mr Andrew Wholley, Mott MacDonald Ltd (Head Office UK)
NHSL RHSC + DCN, NHS Lothian
Cc: Ms Anne Alexander, Bouygues E&S FM
Mr Didier Blanchet, Bouygues E&S FM
Mr Matthieu Dannoot, Bouygues E&S FM
Mr Panya Upama, Bouygues E&S FM
Mr Graham Coupe, Brookfield Multiplex Construction Europe
Mr Ken Hall, Brookfield Multiplex Construction Europe
Mr George Miller, Brookfield Multiplex Construction Europe
From: B DocControl, Brookfield Multiplex Construction Europe
Sent: 29/09/2014 7:49:31 AM BST (GMT +01:00)
Attribute 1: Stage 2 - Preferred Bid
Attribute 2: 33. M&E Building Services
Status: N/A
Subject: **RE: Environmental Matrix**

Maureen,

Please see attached RHSC DCN RDS Environmental Matrix in excel format as requested.

Best Regards

Anne

BM Edinburgh Document Control

RHSC and DCN
Little France
Edinburgh
Scotland

This is an automatic notification from **Aconex** .
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Royal Hospital for Sick Children and Department for Clinical Neurosciences - Edinburgh

RHSC / DCN RDS Environmental Matrix

Dept Code	Index
~	Cover
~	Guidance Notes
~	Room Function Reference Sheet
A1 - A4	Front Door - A&E / Assessment Ward
B1	Critical Care / HDU / Neonatal Surgery
C1- C5	RHSC In Patient Pathway / Ward Care
D1 - D10	RHSC Ambulatory Care
E1	Pod
F1	Child and Adolescent Mental Health
G2 - G3	Clinical Support
H1 - H3	Academic
I1 - I2	Facilities / Infrastructure Support Services
J1 - J2	Patient / Family Support
K1 - K2	Family Facilities
L1 - L2	DCN In Patient Pathway / Ward Care
M1- M4	DCN Support Space
N1	DCN Out Patient Departments
P1	Combined Theatres
Q1	Combined Radiology
R1 - R2	Office / Admin Support Services
S1 - S7	Combined Facilities / Infrastructure Support Services
T1	Plant
U1	Shelled Space

Rev	By	Description	Date

Environmental Matrix - Guidance Notes

1 This workbook is prepared for the Reference Design Stage as an easier reference tool to replace ADB RDS M&E Sheets for the Environmental Criteria elements as described on these sheets.

2 The services matrices are produced from the NHS Lothian Schedule of Accommodation Sheets Version 13 issued 19th September 2012.

3 The design of the HVAC systems to the theatres shall be in accordance with SHTM 03-01.

4 Where radiant panels are indicated in any room in these matrices, detailed design development may remove the need for these without detriment to environmental temperature. This design development is dependant on actual room layout - i.e. whether a room is located adjacent to an external wall, ground bearing floor, roof surface or is internal.

5 Ventilation air change rates and the use of natural ventilation in Patient Areas shall be reviewed throughout the detail design process to ensure a maximum internal temperature of 25°C (dry bulb) is not exceeded during normal occupancy. This criteria shall also apply to cellular and open plan office spaces.

6 Maximum internal temperatures listed relate to normal occupancy and Summer Design Conditions ; External Summer Conditions for Cooling Plant Selection as per SHTM2025,Enthalpy 54kJ/kgda.26degC db,19degC wb. External Winter Conditions as per CIBSE Guide A Table A 2.2 for locality = - 6C for Heat Losses, and as SHTM 2025 for locality = -10C for AHU Ventilation Plant design.

7 Examination lamp notes where listed are provisional. Detailed requirements (fixed, mobile, illumination) will be detailed on C sheets as agreed from signed off 1:50 RDS, which shall take precedence over this schedule.

8 All lighting levels are derived from CIBSE Lighting Guide LG2. Client briefing may take precedence over Environmental Matrix.

9 Colour rendering refers to CIBSE Lighting Design Guide and will be applied throughout

"80" : Normal
"90" - Enhanced to provide close as possible match to natural light for clinical purposes

10 Thermostatic Mixing Devices - SHTM 04-01 Guidance shall be employed for specific TRV Type versus listed Area/Activity.

11 Standby Lighting to be Grade A throughout .

12 The internal temperature in naturally or mechanically ventilated rooms shall not exceed the maximum temperature as listed on these Environmental Matrices provided external summer design criteria is not exceeded .

13 Local Radiant Panel TRV's shall be tamper proof head type with limiting/locking facility.

14 Local Control BMS Temperature Sensors for ducted reheat zones and chilled water cassettes for hotspots shall be provided with local range adjustment to +/- 2C of BMS Set Point. BMS set point shall be adjustable via operator/user dialogue through formal

15 **Typical bedroom** - Design Criteria - SHTM 03-01 Clause 2.11 - internal temperatures in patient areas should not exceed 28C db for more than 50 hrs per year. Appendix 1 SHTM 03-01 gives 18C to 28C float range. NHSL however require that the maximum internal design temperature is 25C

HDU bed areas - Design Criteria - HBN 57 gives specific guidance as well as SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply, 18C to 25C control range. (Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions).

The department should be air conditioned and controlled on a zonal basis.

Central AHU plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Post theatre recovery areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 15ac/hr S&E , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions).

Central AHU plant requires humidification to achieve RH range during winter.

Critical Care areas - Design Criteria - SHTM 03-01 - esp Appendix 1 for air change rates - 10ac/hr Supply , 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the maximum and minimum range conditions). NHSL may require specific rooms to have a control range up to 28C

Central Air Handling Plant requires humidification to achieve RH range during winter (HBN 57 Clause 4.60).

Theatre areas - Design Criteria -SHTM 03-01 - esp Appendix 1 and 2 for air change rates Appendix 3 for design logic and pressure cascade criteria, 18C to 25C control range.(Capability shall be provided but not at the summer and winter external ambient design extremes against the internal maximum and minimum range conditions). SHTM 03-01 advises Humidification is no longer to be provided for theatres ventilation as a matter of course. Users to verify any specific requirements depending on clinical requirement. Space in plant rooms should be provided together with blank section within air handling units for future provision. NHSL may require specific rooms to have a control range up to 28C

16 **Corridor** ventilation may be either mechanical or where the opportunity exists natural. To be determined during detailed design with due regard to clinical functionality.

17 **Single Room WC** - SHTM 03-01 Appendix 1 suggests 3ac/hr extract air change rate only. HK have applied 10ac/hr extract rate to provide a more robust rate of extract.

18 **Diagnostic Rooms** - (X Ray, CT Scanner, MRI Scanners, Gamma Camera) - air change rates listed at 8ac/hr. Actual air change rate must be derived through room heat gain analysis and actual equipment guidance.

19 **Operating Theatre Laminar Flow/UCV Requirements -** Refer to Operational Policy Documents for specific theatres which require Laminar Flow/UCV canopy style ventilation solution. Note specific requirements for screenless canopies to avoid conflict with particular surgeon instruments/microscopes.

20 **Small workshop Areas -** Local Extract Ventilation (LEV) unit requirement to be determined from room equipment schedules

21 **Note that Isolation Suite ventilation solutions for this project shall follow HBN 4 Supplement 1 Section 4 Item 4.8 Guidance i.e.**
A common departmental AHU shall be employed to provide supply air ventilation (and shall therefore employ duty & standby motors)
Isolation Rooms En Suite Extracts shall be provided with an independent Isolation Room toilet extract ventilation system.
Isolation Rooms En Suite Extracts shall be provided with either externally located 3 mtr high discharge stack in a safe location or with extract filters (H14) within a safe change housing outside the building on the suction side of the fan.
Heating & Cooling Isolation Suites shall be provided via the ventilation system.

22 **Retail Provision -** Service provisions listed are Infrastructure only for future fit-out by retailer

23 **Comfort Cooled Fresh Air -** Where noted as such on the matrices, this means as provided via departmental air handling plant via chilled water cooling coils.

Room Function Reference Sheet.

The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

Room Function	Temperature		Heating		Cooling Present	Cooling	Ventilation					Safety temperatures		Safety Notes	Lighting							Notes	Medical Location
	Design Max deg C	Design Min deg C	Type	Control		Type	Type	Supply ac/hr	Extract ac/hr	Relative Pressure	Min Filtration	Surface deg C	Water deg C		Normal lux	Night lux	Local lux	Standby Grade	Colour Rendering	Control	Plane		Group
Bathroom	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Bedroom	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	5	300	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	1
Cellular / Ward Offices	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	3	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Changing Facilities	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	4	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Circulation Areas	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	None	Refer to Guidance Notes	Refer to Guidance Notes		G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
Circulation Areas - Entrance Lobby	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Classroom	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Common room/staff room/lounge	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Consulting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Clean Utility	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
Dirty utility	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	60		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Diagnostic room	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	8	8	Balanced	F7	43	41		300	n/a	1000	A	80	switch	General working plane 1m	See Guidance Notes	1
Eating/Drinking	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Ward Kitchen	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
Small Workshop	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
IT equipment (comms server)	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Kitchen (Commercial)	28	16	None	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
Laboratory	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Laundry	28	18	Adjacent Space Transfer Air	None	No	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Meeting Room	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Patient Accommodation Day	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Multi-bed Wards	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	0	Positive	G4	43	41		100	5	300	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Physiotherapy Studio	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
Body View	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Reception	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	3	0	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a

query

Room Function Reference Sheet.

The following table details reference templates which are used to populate cells within the environmental matrix. Refer to individual department sheets for individual room environmental conditions

Storage Area Med Gas	28	16	Adjacent Space Transfer Air	None	No	None	Natural ventilation	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Storage Area Equipment	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Tea Making	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Toilet	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Waiting Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Treatment Room	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Isolation Lobby	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant		F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Resusitation Bay	25	21	Radiant Panels	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Circulation Equipment Storage Bays	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Isolation Bedroom	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	HBN4 Dependant	HBN4 Dependant	HBN4 Dependant	Balanced	F7	43	41		100	5	300	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
Operating Theatre Suite	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	In line with SHTM 03-01	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	n/a		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Disposal Hold	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
DSR	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Resus Trolley bay	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	0	0	Balanced	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Baby Feeding Room / Nappy Change	25	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Relatives Overnight Stay	25	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
Pantry	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
Linen Bay	28	16	Adjacent Space Transfer Air	None	No	None	Central Supply and Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Multi Disciplinary Work Areas	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Open Plan Office	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	4	Positive	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
Equipment Decontamination	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
Circulation Phone Both	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	0	0	Balanced	G4	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Recovery Bay / Recovery Room	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		500	n/a	1000	A	80	switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
IPS Room	Manufacturer Dependant	Manufacturer Dependant	Adjacent Space Transfer Air	None	No	None	None	0	3	Negative	None	43	n/a		200	Not Applicable	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
					Bathroom		28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Bedroom		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
					Cellular / Ward Offices		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Changing Facilities		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Circulation Areas		28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	Central Supply and Extract or to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
					Circulation Areas - Entrance Lobby		28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Classroom		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Common room/staff room/lounge		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Consulting Room		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
					Clean Utility		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
					Dirty utility		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Diagnostic room		25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
					Eating/Drinking		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Ward Kitchen		28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
					Small Workshop		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					IT equipment (comms server)		25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Kitchen (Commercial)		28	16	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
					Laboratory		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Laundry		28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Meeting Room		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Patient Accommodation Day		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Multi-bed Wards		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Physiotherapy Studio		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
					Body View		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
					Reception		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Storage Area Med Gas		28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Storage Area Equipment		28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Tea Making		28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Toilet		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Waiting Room		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Treatment Room		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Isolation Lobby		25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Resusitation Bay		25	21	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Circulation Equipment Storage Bays		28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Isolation Bedroom		25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Positive	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
					Operating Theatre Suite		25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Disposal Hold		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					DSR		28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Resus Trolley bay		28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Baby Feeding		25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Nappy Change		25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Relatives Overnight Stay		28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Pantry		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
					Linen Bay		28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Multi Disciplinary Work Areas		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Open Plan Office		25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
					Equipment Decontamination		28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	7	10	Negative	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
					Circulation Phone Booth		28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
					Recovery Bay / Recovery Room		28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
					Staff Base		28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
A1	Emergency Department	Main Entrance Draught Lobby	2	10.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parking Bay: 6 wheelchairs	1	4.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parking Bay: 3 accident trolleys & 3 wheelchairs	1	12.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception:2 staff	1	16.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area inc Play Area	1	63.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Triage Room	1	16.0	Consulting Room	X0242-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room: Dual Access (Mental Health)	10	16.0	Treatment Room	X0242-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room: Single Access	4	14.0	Treatment Room	X0242-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Plaster Suite (2 bays)	1	24.0	Consulting Room	X0206	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store - Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Quiet Room	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Supplies Base	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Washdown Room	1	16.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		General X-Ray Room	1	33.0	Diagnostic room	E0128	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Consultant Psychiatrist / Psychologist Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Changing Cubicle	1	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Room: 2 places	2	50.0	Resusitation Bay	X0242-06	25	21	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Sitting Room	1	16.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Body Viewing Room	1	10.0	Body View	S0027-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Laboratory - Near Patient Testing / Status	1	8.0	Laboratory	L1308	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry - Staff / Patient	1	5.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Shower: ambulant	2	2.5	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing Room and Lockers: 20 places	1	11.5	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers: 30 places	1	16.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Secretary/Filing Office	1	18.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Manager's Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview/Meeting Room: 6 persons	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store - Equipment & Supplies	1	18.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Stock & Sterile Supplies	1	18.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dispensing Drugs	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Major Incident / Ambulance Equipment	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Medical Gas Cylinders	1	3.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
A2	Paediatric Acute Receiving Unit 34 Beds	4 Bed Room	1	63.0	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	6	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	6	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception/Staff Base	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	4	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Isolation Bed Room	1	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	13	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	14	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dining / Play Room	1	37.0	Common room/staff room/lounge	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Head of Department Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laboratory / Finance Manager's Office	1	11.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Senior Academic Staff Office	6	11.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		16 Person Office	1	80.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	10.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	2	1.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
A3	PARU / Emergency / Radiology Shared Support	Meeting / Case Conference Room	1	32.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Seminar & Training Room	1	32.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	1	80.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Area (Visitors)	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
B1	PICU and HDU's - 24 Beds	WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	2.0	Circulation Phone Booth	G0710	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	7.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office - 4 person	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Base	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Isolation Cubicle	2	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	2	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Cubicle	2	26.0	Bedroom	B1401	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	B1609-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff Base	1	4.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Cubicle	1	26.0	Bedroom	B1401	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	1	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (4 beds)	1	80.0	Multi-bed Wards	B1609-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Base	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Cubicle	1	15.0	Bedroom	B1401	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (3 cots)	1	45.0	Multi-bed Wards	B1407-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff Base	1	4.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Cot Cubicle	1	26.0	Bedroom	B1421	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Isolation Cubicle	1	26.0	Isolation Bedroom	B1401-01	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Gowning Lobby	1	6.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Open Plan Bay (4 beds)	1	104.0	Multi-bed Wards	B1609-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	18.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	19.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laboratory	1	10.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry / Milk Store	1	10.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	5.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Specialist Base & Store	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	3	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Relatives' Sitting Room	1	18.5	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Relatives	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Relative Overnight Stay Room	2	10.0	Relatives Overnight Stay	D1311	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	1	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Quiet / Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Family Interview Room	1	12.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Bulk Supplies Store	1	55.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	40.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bed/Patient Chair / Buggy Storage	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Retrieval Equipment Store	1	15.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Service Room	1	24.0	Small Workshop	L1804	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Gas Cylinder Store	2	2.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Cardiac Echo/ECG Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile X-Ray / Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		X-Ray Processing	1	8.0	Diagnostic room	L1804	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	4	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		On call consultant	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Retrieval Team	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Senior Nursing Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Work Area PICU	1	15.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Work Area HDU	1	15.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Seminar Room	1	37.5	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		IPS Room	1	2.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	3.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	32.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
C1.1	Medical Inpatients - 23 Beds	Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom	5	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom	3	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	3	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	8	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	19.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	1	19.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite trolley shower	4	8.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sitting Room / Lounge	1	16.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	2	10.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	20.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	3.0	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - back up clothing	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	18.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Mobile X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.8	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C1.2	Surgical Long Stay Inpatients -15 Beds	Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wetroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	5	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	5	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Discharge Lounge	1	20.0	Common room/staff room/lounge	D1135	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	1	3.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	13.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - back up clothing	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	1	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
C1.3	Neuroscience Inpatients - 12 Beds	Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Wetroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	2	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	2	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining / Play Room	1	16.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Snoezelen Room	1	12.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		WC Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Rehabilitation Room	1	30.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
C1.4	Haematology / Oncology Inpatients & Daycases - 17 Beds & 2 Chairs	Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception / Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom (RHSC)	4	17.0	Isolation Bedroom	B0308	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	4	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite wheelchair-accessible WC, Shower & wash	7	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patients' Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Multi Bed Room: day care, 4 beds & 2 chairs	1	72.5	Multi-bed Wards	B0405-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	12.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	16.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Single Bedroom	3	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Kitchen/ Lounge/Social Space	1	25.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Study Room	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Treatment / Clean Utility	1	18.0	Treatment Room	X0105-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Complementary Therapy Room	1	10.0	Consulting Room	X0613	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Staff Office	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Nursing Staff Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Research Staff Office	1	19.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Room	1	25.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pharmacy Base	1	9.0	Consulting Room	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.5	Med / Surg / Neuro / Haemo Shared Support	Family Sitting Room	1	27.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Breast Pump Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC-Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C1.6	Adolescent Shared Accommodation	Dining / Recreation Room	1	26.0	Common room/staff room/lounge	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Room / Study	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.7	Paediatric Neurophysiology	EEG Recording Room	2	16.0	Diagnostic room	X0125	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Evoked Potential Recording Room	1	16.0	Diagnostic room	C0800	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		EEG Review Room	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C1.8	Surgical Short Stay Inpatients - 14 Beds	Reception Desk/Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dining / Play Room	1	15.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	4	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite Shower / WC / WHB	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	58.5	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (RHSC)	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C2	Wards Support Areas	Staff Room	1	48.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Seminar Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
C3	Special Feeds Unit	Food Prep Area	1	24.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Store - Feeds	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office Ante Room	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wash Room	1	5.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C4	Sleep Lab	Sleep Room	2	15.0	Bedroom	B0704	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Parents Room	2	10.0	Bedroom	D1311	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Control Room	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
C5	Classrooms	Primary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Upper Primary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secondary Classroom	1	18.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resource Storage	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Administration Area	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Ambulant	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	3.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	10	15.5	Consulting Room	C0224-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Child Protection Room	1	24.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (Child Protection)	1	15.5	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	1	24.0	Consulting Room	C0217	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room (with prep area)	1	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Plaster Suite (3 bays)	1	40.0	Consulting Room	X0206	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store: Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Orthotics Workshop	1	16.0	Small Workshop	K0420	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment / General Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Room	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	2	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1

RHSC / DCN Environmental Matrix

Hulley Kirkwood

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
D1	RHSC Main Outpatients Department	Specimen/ Disabled WC	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Fully accessible changing room	1	7.0	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area (incl supervised play) with Nurse Base	1	46	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area	1	3.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	4	15.5	Consulting Room	C0224-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (Ophthalmology)	1	15.5	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	1	24.0	Consulting Room	C0217	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Equipment / General Store	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Play Therapy (inc messy play) Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	2	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Shower Room	1	5.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile Hoist Bay	1	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination (Cleft)	2	18.0	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination (ENT)	3	17.0	Consulting Room	C0224-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store Room	1	1.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room (with prep area)	2	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Linen Bay (1 Trolley)	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change	1	4.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Outpatients Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room	1	15.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D2	Cardiology & Respiratory	Waiting Area	1	9.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store/ Equipment	1	9.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Staff	1	4.5	Toilet	V1010-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		ECG Procedure Room	1	12.0	Consulting Room	C0718-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Echocardiography Room	1	20.0	Diagnostic room	C0712	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Exercise Tolerance Test Room	1	20.0	Consulting Room	C0718-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Admin Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lung Function Laboratory	1	28.0	Treatment Room	C0718-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Exercise Room/Lung Function Laboratory	1	22.0	Treatment Room	C0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Admin Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Domiciliary Sleep Studies	1	12.0	Consulting Room	C0224-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
D3	Orthoptics	Staff Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Parking Bay: pushchairs	1	2.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC & handwash: specimen; wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Examination Room: Fields test	1	16.0	Consulting Room	C0143	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		C/E Orthoptic (6 metre room)	4	15.5	Consulting Room	C0230	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D4	Audiology	Waiting Area	1	13.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	3.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Testing/Clinic Rooms	2	21.0	Consulting Room	C0515	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Obs/Control	2	8.0	Diagnostic room	C0516	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		ABR Room	1	16.0	Treatment Room	C0517	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Test Room	1	16.0	Treatment Room	C0517-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Work Room	1	12.0	Small Workshop	L1804	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Mould Room	1	9.0	Small Workshop	L1804	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shared Staff Office	1	32.8	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D5	Paediatric Dentistry	Surgeries (standard)	3	18.0	Operating Theatre Suite	C0903	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Surgery (multi-disciplinary)	1	20.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery	1	10.0	Recovery Bay / Recovery Room	C0522-04	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Laboratory	1	10.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility / Dental Store	1	23.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mobile Inter-oral Storage	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D6	RHSC Therapies	Rehabilitation Room	4	30.0	Treatment Room	X0208-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Rehabilitation Room (inc CV equip)	1	39.0	Treatment Room	X0208-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Standard Treatment Room	3	15.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room (OT equip)	1	20.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Infant Measuring Room	1	6.0	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Standard Distraction Free Treatment Room	2	15.0	Consulting Room	C0110-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Large Distraction Free Treatment Room	1	20.0	Consulting Room	C0110-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Dietetic Clinic Room	2	12.0	Diagnostic room	C0224-02	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Splinting / Casting Room	1	18.0	Consulting Room	X0206-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		management office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Office - All specialties (39 person)	1	159.0	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		A&C Staff Office/Appliance Officer	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Play Area	1	33.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - assisted (large+changing)	1	12.3	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	16.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - OT	1	2.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - SALT	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	1.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Dietetic	1	1.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	8.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	24.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	8.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	3.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Physio	1	13.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - TIP	1	4.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Decontamination	1	10.0	Equipment Decontamination	Y0335	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	7	10	Negative	G4	43	41		200	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D7	Plastics Dressings Clinic	Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dressings / DopplerStore	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sluice	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Telephone Booth	1	4.0	Circulation Areas	G0710	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Dressings Room (Burns)	2	16.0	Consulting Room	X0242	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
D8	Social Work	Open Plan Area	1	45.1	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
D9	Medical Day Care Unit - 5 Beds	Reception: 2 staff	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office and Storage 2 staff	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Waiting Play Area	1	20.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi Bed Room: day care, 3 beds	1	40.5	Multi-bed Wards	B0405-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En Suite WC / WHB	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Treatment Lounge	1	32.4	Treatment Room	X1504	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Parking Bay: 1 patient trolley/whch	1	5.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview, Counselling & Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a

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Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Ward Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Staff Room	1	48.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception Desk/Staff Base	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dining / Play Room	1	15.0	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	4	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite Shower / WC / WHB	4	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4 Bed Room	2	63.0	Multi-bed Wards	B0405	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural and Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	switch / dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	2	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	2	17.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bath / WC / Washing	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
D10	Ambulatory Care Shared Support	Ward Management Office	1	9	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	2	2	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Resus Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - General	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RHSC OPD Reception	1	10.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		RHSC OPD Main Waiting	1	15.0	Waiting Room	J1255	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		RHSC OPD Suite A Sub Waiting	1	54.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
E1	Pod	Multi-Funtional Activity Zone	1	297.0	Patient Accommodation Day	J0232-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		WC Fully Accessible changing room	4	4.5	Toilet	V0922-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Accessible	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Ambulant	1	7.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	18.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Group Room	1	24.0	Meeting Room	H1107	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Control / Viewing	1	10.0	Diagnostic room	E0604-06	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Time Out Room	1	6.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Play Room	1	24.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	1	15.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Group Room	1	24.0	Common room/staff room/lounge	H1107	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	1	15.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Single Bed Room	10	10.0	Bedroom	B0510	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Bed Room (large)	2	11.5	Bedroom	B0510	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		En-suite wheelchair-accessible WC, Shower & wash	12	4.5	Bathroom	V1610	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Base - Open Plan Area	1	10.0	Reception	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		TV / Living Room - Open Plan Area	1	24.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Open Space	1	43.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Quiet Room	1	12	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Therapy Room	1	15.0	Consulting Room	X0613	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Group Room	1	24.0	Meeting Room	H1107	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laundry Room	1	6.0	Laundry	Y0521	28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Drug Room	1	6.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
F1	CAMHS - 12 Bed	Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Multidisciplinary Office - Inpatients	1	28.7	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multidisciplinary Office - ITS	1	24.6	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Consultant Psychiatrist / Psychologis	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secretary/Filing Office	1	18	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Storage (testing)	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage / Photocopy	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Large Family Interview Room	1	14.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Family Interview Room	1	12.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	4	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower / WC / WHB assisted	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dining Room (Inpatients & Day Prog)	1	62.0	Eating/Drinking	D0608-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Therapeutic Kitchen	1	22.0	Ward Kitchen	Q0121	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Large Group Room	1	30.0	Meeting Room	H1107	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Therapy / Play Therapy Room	1	15.0	Common room/staff room/lounge	H0322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Art Room	1	24.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Recreation Room	1	45.0	Common room/staff room/lounge	H0322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Manager Office	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Quiet Zone	1	11.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Equipment	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
G2	Equipment Librar	Clean Equipment	1	50.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		On-Call Bedroom	3	10.0	Bedroom	D1311	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
G3	On-Call Suite	DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Mini Kitchen	1	3.6	Eating/Drinking	D0608-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	3	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Seminar / Tutorial Room	2	40.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Conference / Meeting Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lockers	1	12.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Ambulant	4	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Admin Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Head of Department	1	16	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Laboratory / Finance Manager's Offic	1	11	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
H1	Child Life & Health	Student Records Store	1	12.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Senior Academic Staff	6	11	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		16 Person Office	1	80	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Stationery / Photocopying	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Tissue Culture Room	1	9.0	Laboratory	L0102-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Freezer Store	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physiological Laboratory	1	45.0	Laboratory	L0102-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Molecular Biology Laboratory	1	45.0	Laboratory	L0102-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Play Area	1	9.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Study Room	1	63.0	Consulting Room	B0405-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		En Suite Shower / WC / WHB	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Room	2	15.0	Bedroom	B0305-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	1	4.0	Isolation Lobby	G0510	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En Suite Shower / WC / WHB	2	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Accessible Patients	1	3.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
H2	Clinical Research Facility	Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	6.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult / Assessment	1	12.0	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		WC Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
H3	Clinical Education Suite	Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Equipment	1	24.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sample Processing	1	15.0	Diagnostic room	L1804	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Office - 4 person	1	20	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Seminar Room	1	40.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room	1	25.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Scenario Room	1	20.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Control Room	1	8.0	Diagnostic room	C0516	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Workshop / Tutorial Room	3	20.0	Classroom	H0202-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	m/a
		Practice Based Educators Office	1	20	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Management/ Admin Office	1	15	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Manual Handling, Health & Safety	1	15.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Storage	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC / WHB disabled	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Lockers	1	8.0	Circulation Equipment Storage Bays	V0653	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Computer Carrels	6	2.0	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
I1	Main Entrance - Public Spaces	Draught Lobby	1	15.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception / Information Desk	1	12.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	16.5	Waiting Room	J1155	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	2.0	Circulation Phone Booth	G0710	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Fire Control room	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assisted Change/Nappy Change	1	7.0	Nappy Change	V1131	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Dirty Extract	0	10	Negative	None	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Security Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Areas	G0180-02	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
I2	Bed & Toy Stores	DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Beds	1	96.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Toys	1	12.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
J1	ereavement Suit	Body Viewing Room	1	18.0	Body View	S0027-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	4	6	Negative	G4	43	n/a		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Lobby	1	3.0	Circulation Areas - Entrance Lobby	G0800	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sitting Room with Beverage Bay	1	20.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
J2	itual & Pastoral C	Prayer / Meditation / Reflection Area	1	40.0	Common room/staff room/lounge	D0434-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC wheelchair accessible / Ritual Washing Area	1	6.0	Toilet	V0922-02	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
K1	Family Support	Waiting	1	8.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Meeting Rooms (family size)	2	15.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Drop-In Lounge / Beverage Bay	1	35.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Drop-In Multi-Purpose Room	1	39.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Complementary Therapy Room	1	15.0	Consulting Room	X0613	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Interview Rooms	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Radio Lollipop Broadcasting Studio, Lobby	1	20.0	Circulation Areas	C0516-01	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Office 1	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 2	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 3	1	10	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 4	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 5	1	19.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office 6	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	20.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	8.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Changing Room	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
K2	Family Hotel	Reception/Waiting	1	6.0	Waiting Room	J0232-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Office - 1 person	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Lounge - non residents	1	30.0	Common room/staff room/lounge	D1120-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Female	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Male	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Family Room accessible for 4 persons inc en-suite	2	48.0	Bedroom	D1311-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Family Room for 4 persons inc en-suite	24	19.0	Bedroom	D1311-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Kitchen / Dining Rooms	1	116.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Residents Day Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Residents Play Room	1	18.0	Common room/staff room/lounge	H1322-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Bathroom	1	8.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	2	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laundry	2	15.0	Laundry	Y0521	28	18	Adjacent Space Transfer Air	None	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	Negative	G4	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En-suite Shower / WC / WHB	26	6.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage - refuse	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
L1	DCN Acute Care - 24 Beds	Waiting Area, relatives	1	30.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Multi-Disciplinary Office / Reception	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	1000	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Refreshment: Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Visitor toilets, baby changing	2	4.5	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC: Independent Wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview/Relatives Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consulting/Examination Room	4	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Patient Waiting	1	20.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Receiving/Resuscitation area	1	30.0	Resusitation Bay	B1411	25	21	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10	6	Positive	G4	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Relatives Overnight Stay Room	1	10.0	Relatives Overnight Stay	D1311	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	0	Positive	G4	43	41		100	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ensuite Accessible Shower/Wc/WHB	1	6.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bed Room	12	19.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Ensuite Shower/Wc/WHB	12	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom (level 1)	12	19.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Shower Room:en-suite	12	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Touchdown Base	4	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Ward Management Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Base	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pantry	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Interview/Relatives Quiet Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teaching Room	1	20.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Hoist Bay	2	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	2	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Equipment	1	10.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Consumables	1	18.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage Stationery	1	4.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	9.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	1	12.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		WC Staff	3	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
L2	DCN Inpatients - 43 Beds	Reception	1	3.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC: Semi Ambulant	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC: Independent Wheelchair	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Bedroom	41	19.0	Bedroom	B0305	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Natural & Central Supply Air	4	via ensuite	positive to ensuite	G4	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Single Isolation Bedroom	2	19.0	Isolation Bedroom	B0308-??	25	21	Adjacent Space Transfer Air	BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Supply via lobby	10	0	Balanced	F7	43	41		100	5	300	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	1
		Isolation Bedroom Entrance Lobby	2	4.0	Isolation Lobby	G0510-02	25	18	Warm Air - Reheat Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply	69	0	Positive	F7	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower Room:en-suite	43	4.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assisted Bathroom	1	14.0	Bathroom	V1736	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Ward Management Office	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-disciplinary Office	2	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Touchdown Base	12	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teaching Room	1	20.0	Classroom	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sitting Room	2	12.0	Common room/staff room/lounge	D1120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry	2	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Mobile X-Ray Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	2	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a

RHSC / DCN Environmental Matrix

Hulley Kirkwood

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Hoist Bay	5	3.0	Circulation Equipment Storage Bays	G0180-03	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store	2	12.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clean Utility	2	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility	3	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Ward Kitchen	2	16.0	Ward Kitchen	P0627-01	28	18	Adjacent Space Transfer Air	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	6	Negative	G4	n/a	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		WC: Staff	4	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
M1	DCN Outpatients	Enquiry / Information Desk: 2 staff	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Records Store	1	8.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Main Waiting	1	59.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Public Telephone Booth	1	1.5	Circulation Phone Booth	G0710	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Public Telephone: Single Booth, Accessible	1	2.0	Circulation Phone Booth	G0712	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	n/a	0	0	n/a	n/a	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Fully Accessible Changing Room	1	7.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Refreshment: Vending Machine	1	3.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Nurse Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination	15.5	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Multi-Disciplinary	2	24.0	Consulting Room	C0207-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Treatment Room (with prep area)	1	16.0	Treatment Room	X0105-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Phlebotomy Room	1	8.0	Consulting Room	C0224-??	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Store - Equipment / General	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub Waiting Area	1	16.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Nurse Base	1	2.0	staff base	T0151	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Consulting Room	V0922	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Physical Measurement	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Consult/Examination	4	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Multi-Disciplinary Office	1	26.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility	1	8.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility: urine test	1	11.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Outpatients Management Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: Clinical Supplies, Equipment & Stationery	1	15.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
M2	DCN Therapies	Waiting	1	18.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff Lockers	1	4.5	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		ADL Kitchen	1	22.0	Pantry	Q0120	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		ADL Bathroom, Shower, WC with hoists	1	13.0	Toilet	V1736-01	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Physio Treatment Room	1	15.0	Physiotherapy Studio	X0105-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Multi-Purpose Rehabilitation Room	1	80.0	Physiotherapy Studio	X0318	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	6	Negative	G4	43	41		300	n/a	None	A	80	Switch / Dimmer	Floor 0m	See Guidance Notes	n/a
		Consult/Examination	1	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Distraction Free Treatment Room	2	15.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Store: General/Equipment	1	25.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: General/Equipment	1	20.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store: General/Equipment	1	5.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	4	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Office	1	65.6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Interview Room	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Patient Toilet	2	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Toilet	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
M3	Programmed Investigations Unit	Waiting area; 4 & 2 wheelchairs	1	17.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Treatment Area	1	45.0	Treatment Room	X0111	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Treatment Room	1	16.0	Treatment Room	X0105	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
M4	DCN Neurophysiology	Waiting Area (DCN)	1	15.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - wheelchair accessible (DCN)	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		EEG Recording Room	3	16.0	Diagnostic room	X0125	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		EMG/Nerve Conduction Room	3	16.0	Diagnostic room	X0136	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		VTEM/Ambulatory Review Room	1	20.0	Diagnostic room	M0251	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Reporting Room	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		HOD Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clinical Physiologist Room	1	24.6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Secretarial Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Quiet Room	1	10.0	Common room/staff room/lounge	H1107-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Store / Records	1	32.5	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
N1	DCN Entrance	Reception / Information Desk	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Draught Lobby	1	9.0	Circulation Areas - Entrance Lobby	G0800-01	28	Not Controlled	Warm Air Door Curtain	BMS Adjustable Sensor	No	None	None	0	0	Balanced	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Area	1	8.0	Waiting Room	J1155	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Vending Machine	1	3.0	Circulation Areas	P0808	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Visitors	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Wheelchair Bay	1	6.0	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
N2	DCN Wards / Health Records Support - (N2)	Staff Room	1	34.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
P1	Operating Theatres & RHSC Surgical Day Case Unit	Staff Reception / Office / Control Base	1	20.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Multi-Disciplinary Office	1	18.0	Multi Disciplinary Work Areas	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Main Waiting/Play Area	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Single Rooms ensuite	3	15.0	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		En Suite WC / WHB	3	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	3	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Locker Bay	1	13.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview Rooms	2	12.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consult/Examination	2	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Physical Measurement Bay	1	3.5	Consulting Room	C0522-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Reception, administration office & communication base: 4 staff	1	24.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Duty Room: 2 porters	1	5.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admissions Lounge	1	36.0	Common room/staff room/lounge	D2155	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Consulting, examination & changing room	3	15.5	Consulting Room	C0224	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Interview, counselling & quiet room: 5 persons	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Changing Cubicle	1	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC & handwash: accessible, wheelchair assisted	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Immediate Pre Theatre Wait	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	3	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Anaesthetic Room	8	19.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Anaesthetic room: emergency operations	1	29.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Operating Theatre	9	55.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Minor Procedures Room	1	19.0	Operating Theatre Suite	N0106-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Scrub-up (single)	9	11.0	Operating Theatre Suite	N0224	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Preparation Room	10	12.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Utility Room	5	14.0	Operating Theatre Suite	Y0431-01	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Exit Bay	5	12.0	Operating Theatre Suite	G0407	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801-02	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	16.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room - MRI	1	16.0	Storage Area Equipment	E0311	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Bay	2	4.0	Circulation Equipment Storage Bays	J1264	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Sub-Wait Area	1	4.5	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC Accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Anaesthetic Room	1	19.0	Operating Theatre Suite	N0305	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Room	1	55.0	Operating Theatre Suite	E0311	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Control Room	1	16.0	Operating Theatre Suite	X0216	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Angiography Procedures Machine Room	1	16.0	Operating Theatre Suite	E0311	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Preparation Room	1	12.0	Operating Theatre Suite	T0526	25	18	warm air via AHU Battery	Local / BMS Adjustable Sensor	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	In line with SHTM 03-01	In line with SHTM 03-01		F7	43	41		500	n/a	10,000 - 100,000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Sterile Supplies Store	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		X-Ray/Ultrasound Bay	1	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Image Intensifier Bay	3	4.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Satellite Pharmacy Store	1	6.0	Clean Utility	T0526-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Sterile Supplies Store	1	94.0	Clean Utility	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Clinical Equipment Store	1	60.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Clinical Equipment Store	1	30.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	1	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

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Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Dirty Scopes Store	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Decontaminated Scopes Store	1	8.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Medical Gas Cylinder Store	1	4.0	Storage Area Med Gas	W1585-??	28	16	Frost protection	Room Thermostat	No	None	Natural ventilation	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	15.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store - Plaster	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Resus Trolley bay	G0180-01	28	18	Adjacent Space Transfer Air	None	No	None	None	0	0	n/a	None	43	n/a		500	n/a	None	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Parking bay: fibre optic bronchoscope light source trolley DCN	1	1.0	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Holding Bay Clean	1	12.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.5	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.8	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central Supply and Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Holding Bay Dirty	2	6.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Laser Printer / CR Room DCN	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Post Anaesthetic Recovery	1	145.8	Recovery Bay / Recovery Room	B2417	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery Staff Base	1	12.0	Cellular / Ward Offices	M0254	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Recovery Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Recovery Dirty Utility	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		SDCU Dispensary	1	8.0	Clean Utility	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		SDCU Recovery	1	110.0	Recovery Bay / Recovery Room	B2517	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		SDCU Discharge Lounge	1	40.0	Common room/staff room/lounge	D1135	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Pantry (DCU)	1	8.0	Pantry	P0627	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		SDCU Post Op Staff Base/Utility	1	10.0	staff base	T0151-??	28	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply and Extract	10l/s/per person	10l/s/per person	Balanced	G4	n/a	n/a		200/300	n/a	None	A	80	Switch / Dimmer	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Wheelchair Parking Bay	1	1.5	Circulation Equipment Storage Bays	G0180-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Interview Room - DCU	2	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Charge Nurse Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Patients	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery bay: post anaesthetic, 1 place	6	13.5	Recovery Bay / Recovery Room	B2417-01	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery room: post anaesthetic, 1 place	2	26.0	Recovery Bay / Recovery Room	B2417-01	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Staff and communication base, enclosed 3 staff	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Clean Utility	1	12.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Dirty Utility: bedpan disposal & urine test	1	14.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff Room	1	60.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	4	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office Senior Nurse Theatres	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office Staff	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Charge Nurse Office	1	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC-Staff	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing and Lockers	1	60.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers	1	70.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Footwear Machine Washing Area	1	4.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		General X-Ray Room	2	33.0	Diagnostic room	E0128	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Changing Cubicles	5	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Screening Room (fluoroscopy)	1	39.0	Diagnostic room	E0218-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Preparation Room	1	10.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Ultrasound Room	2	16.0	Diagnostic room	E0115	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Dental Room	1	20.0	Consulting Room	E0135	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Main Reporting	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Acute Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		MRI Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Processing Area	1	30.0	Diagnostic room	M0251	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Gamma Camera	2	40.0	Diagnostic room	E0176	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Gamma Camera Control Area	1	17.0	Consulting Room	E0604-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Radioactive Waste Store	1	2.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant (Hot)	2	4.5	Toilet	V0922-03	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Injection Room	2	8.0	Consulting Room	E0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Hot Waiting Area	2	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Cold Waiting Area	2	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Stress Room (myocardial work)	1	14.0	Consulting Room	C0224-04	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Counting Laboratory	1	14.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Admin Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Ambulant (Cold)	1	4.5	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery Area	1	15.0	Recovery Bay / Recovery Room	C0522-04	28	20	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	15	15	Balanced	G4	43	41		500	n/a	1000	A	80	Switch / Dimmer	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Gamma Camera Reporting	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Medical Physics Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Emergency Shower	1	2.5	Bathroom	V1643-01	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception Area	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	10	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area - Main Dept	1	50.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Nappy Change Room with handwash	1	4.0	Toilet	V1131	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Reception	1	8.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Admin Office	1	28.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Waiting Area	1	35.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Patients	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Acute Reporting	1	25.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Quiet Reporting	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Teleradiology Reporting	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Doppler Ultrasound	1	16.0	Diagnostic room	E0113	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Ultrasound Admin Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Resuscitation Trolley Bay	1	1.0	Circulation Equipment Storage Bays	G0180-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Waiting Play Area	1	10.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Patient Interview Room	1	9.0	Meeting Room	M0724	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dirty Utility	1	9.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Room	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	2	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	1.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Bay	2	1.5	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
Q1	Radiology	Photocopy Room	1	6	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - CT/MRI	1	24.0	Cellular / Ward Offices	E0604-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room - MRI	1	16.0	IT equipment (comms server)	E0311	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		CT Room	1	36.0	Diagnostic room	E0601-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Baby Infant / Feeding Room	1	4.0	Baby Feeding	S0012	25	18	Radiant Panels	TRV Remote Head Adj.	No	None	Central Supply Air	5	0	Positive	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Induction Area - 1 place	1	16.0	Treatment Room	X0145-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Recovery Area - 1 place	1	16.0	Treatment Room	B2417-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Waiting Area	1	12.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Trolley Bay	2	4.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Adult Waiting Area	1	8.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible & change	1	7.0	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Wheelchair accessible	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		CT Room	1	36.0	Diagnostic room	E0601	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - CT	1	16.0	Cellular / Ward Offices	E0604-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Injection Room	1	12.0	Treatment Room	E0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	10	0	Positive	F7	43	41		500	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	n/a
		Changing Cubicles	2	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Inpatient Holding Bays	1	43.2	Circulation Equipment Storage Bays	J0132-02	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Toilets	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disabled Toilet	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		MRI Room	2	45.0	Diagnostic room	E0801-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	24.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room	2	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Preparation Room	1	14.0	Consulting Room	T0526-?	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Injection Room	1	12.0	Consulting Room	E0715	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	3	3	Balanced	G4	43	41		300	n/a	1000	A	80	Switch	Bed / Trolley 1.45m	See Guidance Notes	1
		Sub Wait	1	6.0	Waiting Room	J0132-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	5	5	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Changing Cubicles	6	4.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Recovery Bays	1	8.0	Circulation Equipment Storage Bays	B2417-01	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Toilets	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disabled Toilet	1	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		MRI Room	1	45.0	Diagnostic room	E0801-01	25	18	Warm Air - Reheat Battery	BMS Adjustable Sensor	Yes	Comfort Cooled	Central Supply and Extract	to suit location	to suit location	Balanced	F7	43	41		300	n/a	1000	A	80	Switch / Dimmer	General working plane 1m	See Guidance Notes	1
		Control Room - MRI	1	24.0	Cellular / Ward Offices	E0604-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Equipment Room	1	16.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Equipment Store	1	6.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		University Staff Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store Room	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Dirty Utility	1	9.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		IPS Room	1	3.0	IPS Room	Engineering	Manufacturer Dependant	Manufacturer Dependant	None	None	No	None	Central General Extract	0	3	Negative	None	43	n/a	0	n/a	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

Dept	Dept	Room Name	Qty		Room Function	ADB Code	Temp (max)	Temp (min)	Heating Type	Heating Control	Cooling (present)	Cooling (type)	Ventilation (type)	Supply (ac/hr)	Extract (ac/hr)	Relative pressure	Min filtration	Surface temp	Water temp	Safety Notes	Normal lux	Night lux	Local lux	Standby grade	Colour render	Control	Plane	Medical Location	
		Clean Utility	1	10.0	Clean Utility	T0101	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	6	0	Positive	G4	43	41		150	n/a	None	A	80	Presence detection	General working plane 1m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing and Lockers	1	27.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female Staff Changing and Lockers	1	65.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Resource Room / Library	1	39.0	Open Plan Office	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Consultant Office (5 person)	2	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Registrars Office (5 desks)	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Superintendent/PACS Manager/Radiographers/Nursing Office	1	28.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	9.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	2	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	233.7	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	143.5	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	180.4	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	221.4	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	69.7	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	147.6	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		2nd Floor Desks	1	180.4	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	7	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	2	9.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	18	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair Accessible	2	4.5	Toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	17.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	11.0	toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	18.0	toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	21.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Clinical	1	24.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Printer/Photocopier Room	1	16.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
R1	al Management	Staff Room	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	2	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		4th Floor Desks	1	213.0	Open Plan Office	M0132-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 4 person	1	6.0	Meeting Room	H1313-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Meeting Room - 6 person	1	4.0	Meeting Room	H1313-02	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	2	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Management Conference Room	2	26.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC - Wheelchair Accessible	1	4.5	toilet	V0922	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Male)	1	8.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC - Staff (Female)	1	11.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Store Management	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store Management	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Beverage Bay	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Printer/Photocopier Room	1	6.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff Room	2	6.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold (small)	1	4.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Receipt / Dispatch Counter	1	6.0	Reception	J0132-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply Air	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Trolley Area	1	6.0	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RHSC Office	1	15.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
R2	Health Records	RHSC & DCN Records Library (160,000 records)	1	368.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Assistant Health Records Manager / Supervisors	1	12.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		WC Staff	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RHSC / DCN Office 17 Person	3	3.0	Open Plan Office	M0132-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Receipt Bay	1	3.0	Circulation Areas	cds	28	18	underfloor heating / none to suit location	BMS Adjustable Sensor	No	None	to suit location	to suit location	to suit location	Balanced	G4	43	41		200	n/a	None	A	80	presence detection	Floor 0m	See Guidance Notes	n/a
		Dry Goods	1	9.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Kitchen Equipment	1	6.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Refuse	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposables / Detergent	1	6.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Veg Store	1	6.0	CDS	cds	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Raw Meat	1	7.0	CDS	cds	8	5	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Dairy Store	1	9.0	CDS	cds	5	2	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Freezer	2	5.0	CDS	cds	-18	-20	None	None	Yes	By Specialist	None	0	0	n/a	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Preparation/Cooking Area	1	110.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Diet Prep Area	1	12.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
S1	Kitchen	Diet Store	1	5.0	CDS	W1585-??	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Pan Wash	1	12.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Temperature Controlled Sandwich Prep	1	18.0	CDS	cds	12	10	None	None	Yes	Ceiling Cassette - Chilled Water	General Supply and Extract	4	4	Balanced	G4	43	41		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Weighing	1	7.0	CDS	cds	28	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	DW172 Dependant	DW172 Dependant	Negative	G4	43	60		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Clean Trolleys Park	1	21.5	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	1	2	Negative	None	n/a	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bakery Preparation	1	13.0	CDS	cds	12	10	None	None	Yes	Ceiling Cassette - Chilled Water	General Supply and Extract	4	4	Balanced	G4	43	41		500	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Returned Trolleys	1	25.0	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	1	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Trolley Wash Area	1	6.0	CDS	cds	28	16	Adjacent Space Transfer Air	None	No	None	General Supply and Extract	2	3	Negative	None	43	41		300	n/a	None	A	80	Switch	General working plane 1m	See Guidance Notes	n/a
		Office 5 person	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Female Staff Changing inc Shower	1	13.0	Changing Facilities	V0554	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Male Staff Changing inc Shower	1	10.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
S2	e-Health Infrastructure	Core Server Room	1	40.0	IT equipment (comms server)	Engineering	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Domestic Service Office	1	20.5	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Dictation/ 1:1/Phone Booth	1	4.2	Cellular / Ward Offices	M0251-01	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Sanitary Bins Store	1	6.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S3	Domestic Services	Bulk Equipment Store	1	10.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Supplies Store	1	20.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Pool (Clean)	1	32.0	Linen Bay	W1594-01	28	16	Adjacent Space Transfer Air	None	No	None	Central Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Linen Pool (Dirty)	1	32.0	Dirty utility	Y0431	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	6	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Storage/Holding Area	1	100.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S4	Materials Management	Porters Office	1	10.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Office	1	3.0	Tea Making	P0625	28	18	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	5	Negative	None	43	41		200	n/a	None	A	80	switch	Floor 0m	See Guidance Notes	n/a
		Mailroom	1	20.0	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Female Staff Changing , Shower, WC & Lockers	1	240.0	Changing Facilities	V0554	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S5	Central Staff Changing	Male Staff Changing , Shower, WC & Lockers	1	100.0	Changing Facilities	V0554-01	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bay for Token Machine	1	5.0	Circulation Equipment Storage Bays	P0808	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Workshop (NPD)	1	45.0	Small Workshop	K0421	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Workshop (NHSL)	1	30.0	Small Workshop	K0421	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	6	Negative	G4	43	41		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Store	1	30.0	Storage Area Equipment	W1585	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S6	Estates	Staff Room (4th floor)	1	12.0	Common room/staff room/lounge	D0608-03	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	8	Negative	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		BMS Room	1	10.0	IT equipment (comms server)	query	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Staff Change	1	15.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Staff WC	1	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Shower	2	2.5	Bathroom	V1643	28	20	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Restaurant	1	157.0	Eating/Drinking	D0608-02	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	41		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Storage/Dishwashing	1	25.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S7	Restaurant	Male WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		DSR	1	7.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Female WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S8	Sterile Support Store	Trolley Holding Bay	1	23	Circulation Equipment Storage Bays	J1624	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		RFFS Changing / Support	1	29	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Bed Bay	1	3.4	Circulation Equipment Storage Bays	G0180-06	28	16	Adjacent Space Transfer Air	None	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		WC Ambulant	1	3	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
S9	Helipad Support	RFFS Medical Equipment Store	1	6	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
T1	Plant	IT Node Rooms	25	9.0	IT equipment (comms server)	query	25	18	None	None	Yes	Ceiling Cassette - Chilled Water	Central General Extract	0	2	Negative	None	n/a	n/a		300	n/a	None	A	80	Switch	Floor 0m	See Guidance Notes	n/a
		Main Lab	1	120.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Utility Area Wash Up	1	12.0	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Temp Controlled Store	1	15.2	Laboratory	L1804	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	6	6	Balanced	F7	43	60		500	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		DSR	1	8.0	DSR	Y1510	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	60		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
U1	Labs	Record Store	1	15.0	Storage Area Equipment	W1585-??	28	16	Radiant Panels	TRV Remote Head Adj.	No	None	Central General Extract	0	3	Negative	None	43	n/a		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Disposal Hold	1	10.0	Disposal Hold	Y0646	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	n/a		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Meeting/Staff	1	16.0	Meeting Room	H1313-03	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Ceiling Cassette - Chilled Water	Central Supply and Extract	10 l/s per person	10 l/s per person	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Male Change	2	6.0	Changing Facilities	V0726	28	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	6	10	positive to wc	G4	43	41		100	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a
		Office	1	29.7	Cellular / Ward Offices	M0251	25	18	Radiant Panels	TRV Remote Head Adj.	Yes	Comfort Cooled Fresh Air	Central Supply and Extract	4	4	Balanced	G4	43	n/a		300	n/a	None	A	80	Switch	Desk 0.75 to 0.85m	See Guidance Notes	n/a
		Staff WC	2	3.0	Toilet	V1010	28	18	Adjacent Space Transfer Air	None	No	None	Central Dirty Extract	0	10	Negative	None	43	41		200	n/a	None	A	80	Presence detection	Floor 0m	See Guidance Notes	n/a

From: Maureen Brown [auto-reply-lhr@aconex.com] on behalf of Maureen Brown
Sent: 14 October 2014 15:30
To: GRAHAM COUPE
Subject: MM-GC-000339: Re: RE: Environmental Matrix ACNXREF<SYHquCAeEpgHKB4KhIJJSB>
Attachments: 141013 Environmental Matrix Comments.docx

You have received a new **General Correspondence: MM-GC-000339**

Project: RHSC & DCN (PB)
Type: General Correspondence
Mail Number: MM-GC-000339
To: BMEdinburgh DocControl, Brookfield Multiplex Construction Europe
Graeme Greer, Mott MacDonald Ltd (Head Office UK)
Colin MacRae, Mott MacDonald Ltd (Head Office UK)
Mr Andrew Wholley, Mott MacDonald Ltd (Head Office UK)
NHSL RHSC + DCN, NHS Lothian
Cc: Ms Anne Alexander, Bouygues E&S FM
Mr Didier Blanchet, Bouygues E&S FM
Mr Matthieu Dannoot, Bouygues E&S FM
Mr Panya Upama, Bouygues E&S FM
Mr Graham Coupe, Brookfield Multiplex Construction Europe
Mr Ken Hall, Brookfield Multiplex Construction Europe
Mr George Miller, Brookfield Multiplex Construction Europe
Mr David Stillie, Mott MacDonald Ltd (Head Office UK)
Mr Brian Currie, NHS Lothian
From: M Brown, Mott MacDonald Ltd (Head Office UK)
Sent: 14/10/2014 3:29:50 PM BST (GMT +01:00)
Attribute 1: Stage 2 - Preferred Bid
Attribute 2: 33. M&E Building Services
Status: N/A
Subject: **Re: RE: Environmental Matrix**

Liane,

Please find attached the Boards initial technical comments on the draft 1 Environmental Matrix.

Kind regards,

Mo

From: B DocControl
Sent: 29/09/2014 7:49:31 AM BST (GMT +01:00)
To: Maureen Brown, Graeme Greer, Colin MacRae, Andrew Wholley, NHSL RHSC + DCN
Cc: Anne Alexander, Didier Blanchet, Matthieu Dannoot, Panya Upama, Graham Coupe, Ken Hall, George Miller
Mail Number: BMCE-GC-001193
Subject: RE: Environmental Matrix

Maureen,

Please see attached RHSC DCN RDS Environmental Matrix in excel format as requested.

Best Regards

Anne

BM Edinburgh Document Control

RHSC and DCN
Little France
Edinburgh
Scotland

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Regards,
The Aconex Team

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Environmental Matrix Comments - 13 October 14

The Board has the following initial technical comments on the draft 1 of the Environmental Matrix;

1. The submitted Environmental Matrix does not reflect the current Schedule of Accommodation, e.g. theatres and DCN acute care changes are not included. IHSL to provide up to date Environmental Matrix.

2. Issues within the guidance notes relating to:
    a. Environmental Matrix still dated as version 13 issued 19th September 2012,
    b. Humidification, the requirement is for the space for future installation,
    c. HK Design reference to be removed.

3. The detail contained in the Clinical Output Specification requires theatre temperatures to be able to be raised to 31°C for certain operations. IHSL to reflect this in the Environmental Matrix.

4. Body view rooms to be able to reduce temperature for body storage. IHSL to reflect this in the Environmental Matrix.

5. Room descriptions are given but no room numbers shown – IHSL to add room numbers.

6. SHTM 03-01 clause 2.11 states;

    "Internal temperatures in patient areas should not exceed 28°C db for more than 50 hrs per year", however the Board added an additional BCR clause regarding the 25°C as clarified below:

    *"*Measures shall be assessed, modelled and implemented to demonstrate that the internal air temperature of any room or area does not exceed the maximum acceptable level of 25°C for more than 50 hours per annum".

    Further review and development of the Environmental Matrix is required to clarify the following;
    a. There are some rooms at 28°C which are provided with comfort cooling.
    b. There are areas / rooms in the Environmental Matrix that contradict the above BCR clause, hence once IHSL produce an updated Environmental Matrix, further discussion is required with the Board to confirm which rooms or areas are not going to meet the Clause.

7. Bedrooms 4ac/hr, SHTM says 6 ac/hr
    Bedrooms have no extract
    Bedroom en-suites 10 ac/hr, SHTM says 3 ac/hr
    Bedrooms stated as positive pressure, SHTM says 0 or –ve pressure
    The supply air to a bedroom has to be balanced with extract
    e.g. Bedroom area 19m2 and 2.4m high = volume 45.6m3 x 6ac/hr =273.6 m3 / hr
    En-suite area 5 m2 and 2.4m high = volume 12.0m3 x 3ac/hr = 36 m3 / hr
    To achieve balanced pressure within room bedroom extract required = 273.6 – 36 = 237.6 m3 / hr

8. Recovery stated as 4 ac/hr, SHTM says supply and extract 15 ac/hr

9. Query DSR at 10 ac/hr, this seems high for a predominantly empty room – IHSL to confirm if this correct?
10. Query disposal hold extract 10 ac/hr, this seems high – IHSL to confirm if this correct?

11. Public telephone booth area of $2m^2$ fitted with a radiant panel – IHSL to confirm if this correct?

12. Colour rendering all stated as 80 where certain areas should be 90.

RHSC & DCN
At Little France

CONFIDENTIAL

Meeting: **Project Management Group Meeting**

Location: **Islay**

Date and time: **22nd October 2014, 12:30**

Subject: **Project Management**

Meeting Chair: **Wallace Weir**

Attendees:

Sorrel Cosens	NHSL	(SC)
Graeme Greer	NHSL	(GG)
Liane Edwards	IHSL	(LE)
Sean Ferm	IHSL	(SF)
Paul Serkis	IHSL	(PS)
Maureen Brown	NHSL	(MB)
Panya Upama	IHSL	(PU)
Wallace Weir	IHSL	(WW)
Kamil Kolodziejczyk	NHSL	(KK)

Apologies:

John Ballantyne	IHSL	(JB)

Distribution (over and above attendees):

Brian Saunders	IHSL	(BS)

Number	Action	Owner	Date
1.0 Matters Arising			
1.1	1.2 Meeting schedule requirements post FC to be defined by Board.	SC/GG	01/11/14
1.2	1.3 IHSL to respond to petrol station interpretive report comments from Board.	LE	24/10/14
2.0 Technical Schedule Tracker			
2.1	TS and PCP trackers reviewed line by line with status and commentary to be updated by IHSL. Actions are also noted below.	PS/LE	22/10/14
2.2	PCP 4.1 Project Overview to include HCP management arrangements.	WW	22/10/14
2.3	PCP 4.3 Construction Methodology, Board require to understand where room mock-ups are to be provided. Local or not? IHSL to consider and respond.	LE/PS	24/10/14
2.4	PCP 4.5 Interior Design and Wayfinding, IHSL to respond to Board comments.	LE	24/10/14
2.5	PCP 4.8 Civil and Structural being reviewed with drawings received 14/10/14, feedback to be issued by Board. A meeting may subsequently be required.	MB/GG	23/10/14
2.6	PCP 4.9 to be reissued following review by Ken Hall on his return 23rd October 2014. A meeting may subsequently be required.	LE	27/10/14
2.7	PCP 4.10 Energy Model, IHSL to update and submit to Board for final review.	LE	27/10/14

2.8	PCP 4.11 Sustainability/Breeam, IHSL to complete drafting changes further to Board comments.	LE	27/10/14
2.9	PCP 4.12 Fire Strategy, final subject to review of derogations on 24th October 2014.	GG	24/10/14
2.10	PCP 4.13 Acoustic Strategy, IHSL to update and to Board for final review.	LE	27/10/14
2.11	PCP 4.14 ICT Strategy, IHSL to update and to Board for final review.	LE	27/10/14
2.12	PCP 4.15 Vertical Transportation, IHSL to update and to Board for final review	LE	24/10/14
2.13	PCP 4.16 Commissioning, Board to provide comments, a meeting may subsequently be required.	GG/SC	24/10/14
2.14	PCP 4.17 Access Control Strategy, IHSL awaiting comments from Wallace Whittle. Respond to Board ASAP.	LE	27/10/14
2.15	PCP 4.18 Security Strategy, IHSL awaiting comments from Wallace Whittle. Respond to Board ASAP.	LE	27/10/14
2.16	PCP 4.21 Equipment Strategy, Board to review and respond to IHSL.	MB/GG	24/10/14
2.17	PCP 4.23 Specifications, - IHSL to issue revised specs - Board to review C&S specs, comments to IHSL	 LE MB	 27/10/14 24/10/14
2.18	PCP 4.24 Schedule of Design Drawings, IHSL to review and update drawings on receipt from Board. Board request a 1:50 of Service Yard to allow final agreement of Operational Functionality.	LE LE	Update 29/10/14 ASAP
2.19	PCP 4.25 Operational Design Considerations, IHSL to issue revised PCP.	LE/PU	24/10/14
2.20	PCP 4.28 Health and Safety, IHSL to update PCP and issue to Board.	LE	24/10/14
2.21	PCP 4.32 Schedule of Derogations, internal Board review meeting on Friday 24th October 2014. Full detail requested from IHSL for that date. IHSL noted it may not be possible to provide full detail by that date.	LE	24/10/14
2.22	PCPs agreed as final to be transmitted to LTA	SF	On-going
2.23	FC drawings, there is a drive to issue all drawings to IHSL by 24th October 2014. (Excluding Acoustics and Fire)	Board	24/10/14
2.24	Section 5 – RDD discussed at Board internal meeting 22nd October 2014, Board to formally respond.	GG	24/10/14
2.25	Section 6 – IHSL to update Environmental Matrix incorporating Board comments.	LE/PS	27/10/14
2.26	Section 9 – Operational Functionality text to be issued by Board.	GG	24/10/14
2.27	Schedule part 14 Paymech requires updates to SoA. Board to provide feedback and guidance on how IHSL to measure and include lifts and stairs. IHSL will need time to update and calibration will be required before LTA issue.	GG	29/10/14
3.0 Work Streams			
3.1	No update required		
4.0 Requests for Information			
4.1	No update required		
5.0 Programme			
5.1	Schedule Part 7 Programme to be updated by IHSL. Useful if this could be available for the PDG on 27th October 2014.	JB	27/10/14

6.0 Preparation for PDG Meeting			
6.1	Items for the PDG Agenda; • Review of Design and Technical Issues list, • Programme Update, • Capex Update, • Preparation for Project Steering Board.	JB/GG/LE	27/10/14
7.0 Schedule 31, Interface			
7.1	The group agreed this item to be removed from the ongoing agenda.	WW	22/10/14
8.0 FC Document Collation			
8.1	IHSL finalising process for use of Aconex and will confirm to Board.	LE/SF	29/10/14
9.0 AOB			
9.1	None		

From: BMEdinburgh DocControl [auto-reply-lhr@aconex.com] on behalf of BMEdinburgh DocControl
Sent: 31 October 2014 07:58
To: Liane Edwards-Scott
Subject: BMCE-TRANSMIT-001192: RE: Environmental Matrix ACNXREF<d5K0TmJ0ELPno66KhIJJSB>

You have received a new **Transmittal: BMCE-TRANSMIT-001192**

Project: RHSC & DCN (PB)
Type: Transmittal
Mail Number: BMCE-TRANSMIT-001192
To: Maureen Brown, Mott MacDonald Ltd (Head Office UK)
Graeme Greer, Mott MacDonald Ltd (Head Office UK)
Mr Kamil Kolodziejczyk, Mott MacDonald Ltd (Head Office UK)
NHSL RHSC + DCN, NHS Lothian
Cc: **Liane Edwards-Scott, Brookfield Multiplex Construction Europe**
From: B DocControl, Brookfield Multiplex Construction Europe
Sent: 31/10/2014 7:57:55 AM GMT (GMT +00:00)
Reason: Issued for Information
Attribute 1: Stage 2 - Preferred Bid
Attribute 2: 33. M&E Building Services
Status: N/A
Subject: **RE: Environmental Matrix**

Dear All,

Please see attached environmental Matrix for review.

Best Regards

Anne

From: D Miller
Sent: 30/10/2014 3:52:23 PM GMT (GMT +00:00)
To: BMEdinburgh DocControl, Liane Edwards-Scott
Mail Number: WWHIT-TRANSMIT-000077
Subject: Environmental Matrix

Uploaded Document

Document No.	Revision	Title	Status	File Name
WW-XX-XX-DC-XXX-001	01	Environmental Matrix	For Review	RHSC_DCN RDS Environmental Matrix- 140904.pdf

*To update your register, open the transmittal and click **Update Register**.*

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Regards,
The Aconex Team

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RHSC & DCN
At Little France

CONFIDENTIAL

Meeting: **Project Management Group Meeting**

Location: **Islay**

Date and time: **5th November 2014, 12:30**

Subject: **Project Management**

Meeting Chair: **Wallace Weir**

Attendees:

Sorrel Cosens	NHSL	(SC)
Graeme Greer	NHSL	(GG)
Maureen Brown	NHSL	(MB)
Kamil Kolodziejczyk	NHSL	(KK)
Rebekah Wendes	NHSL	(RW)
Brian Currie	NHSL	(BC)
Liane Edwards-Scott	IHSL	(LE)
Panya Upama	IHSL	(PU)
Wallace Weir	IHSL	(WW)
Paul Serkis	IHSL	(PS)
Sean Ferm	IHSL	(SF)

Apologies:

John Ballantyne	IHSL	(JB)

Distribution (over and above attendees):

Brian Saunders	IHSL	(BS)

Number	Action	Owner	Date
1.0 Matters Arising			
1.1	1.2 Meeting schedule requirements post FC to be defined by Board.	SC/GG/LE	14/11/14
2.0 Technical Schedule Tracker			
2.1	The TST was reviewed line by line with status and commentary to be updated by IHSL. The PCP Tracker was reviewed and noted as subject to continuous update.	PS / LE Note	11/11/14 -
2.2	PCP 4.16 Commissioning, IHSL to confirm Notice Periods are consistent with PA.	PS	07/11/14
2.3	PCP 4.32 Schedule of Derogations, Board to confirm circa 6 comments in respect to derogations. Detail to be advised to IHSL by 6th November 2014 with a view to agreement on 7th November 2014.	GG	07/11/14
2.4	PCPs in general, outstanding non material comments to be added to RDD as schedule part 4. Iterations of PCPs will be frozen as submitted to the LTA. Additional comments will form part of RDD schedule part 4 and will be available in this format by 10th November 2014.	GG	10/11/14
2.5	Balance of drawings returned from the Board are being validated and will subsequently be uploaded to Aconex FC site.	LE	Target 07/11/14

2.6	Schedule Part 6, Section 5, RDD, dates and periods to be synchronised between RDD schedule, PA, FC Programme, Construction Programme etc. First three months of proposed RDD meetings to be scheduled and subsequently rolled out. The Board has commented and suggested amendments to the RDD Schedule structure. IHSL to respond. If amendments are accepted populate RDD Schedule framework.	PS / SF PS LE	10/11/14 12/11/14 11/11/14
2.7	Schedule Part 6, Section 9, Operational Functionality, service yard accommodation and corridor drawings to be incorporated into operational functionality drawings register.	LE	10/11/14
2.8	Schedule Part 10, Outline Commissioning Programme to be provided to SF by PS.	PS	07/11/14
2.9	Schedule Part 11, Appendix 2, Equipment Responsibility Matrix (ERM) is not required by the PA. ERM will be developed as an operational tool in due course.	Note	-
2.10	Schedule Part 12, Section 4, Energy Strategy. Final version to be issued later today.	PU	05/11/14
2.11	Schedule Part 14, Appendix 2, Gross Service Units. Circa 20 issues under investigation, comments to be issued shortly.	GG	10/11/14
2.12	Schedule Part 16, Change Protocol, outstanding confirmation of indexation awaited from SFT.	Note	-
2.13	Schedule Part 29, Planning Approval, Mott MacDonald reviewed updated CGL report and noted no reliance on Parsons Brinckerhoff report but referenced the risk assessment from same. This is inappropriate and an alternative risk assessment is required.	LE	12/11/14
2.14	PCPs agreed as final to be transmitted to LTA	SF	On-going
2.15	LTA comments may require joint meetings to review.	SF	As required
3.0 Work Streams			
3.1	No update required	-	-
4.0 Requests for Information			
4.1	No update required	-	-
5.0 Programme			
5.1	FC Programme, Design Programme and Construction Programme, detail to be synchronised in respect to current FC date. Coordinate through SF.	PS / JB / SF	10/11/14
6.0 Preparation for PDG Meeting			
6.1	Agenda Items – • Updated Programmes (Design Development and Construction), • FC Documentation production and signing arrangements.	SC / WW	05/11/14
7.0 FC Document Collation			
7.1	IHSL confirm; • Technical Documents will migrate from Aconex PB to Aconex FC when final, • Documents will be printed, integrated and presented for review at a site yet to be agreed, • Burness Paull will collect and collate all documents for signing. • Signing of documents is likely to take place at Burness Paull offices in Edinburgh.	Note	-
8.0 AOB			
8.1	Environmental Matrix, GG confirmed comments will be submitted	GG	06/11/14

	by the Board shortly. It is suggested these comments form part of RDD schedule part 4 as noted in 2.4 above.		
8.2	RIE MRI development to be considered in respect to adjacencies with IHSL site and works.	IHSL	-

RHSC & DCN
At Little France

IHS LOTHIAN
INTERGRATED HEALTH SOLUTIONS

CONFIDENTIAL

Meeting: PDG Meeting

Location: MacKinlay Room

Date and time: Monday 10 November 2014 – 1.30 – 3.30pm

Subject: Progress/update to Financial Close

Meeting Chair: John Ballantyne

Attendees:

Juan Custodio	IHSL	JC
Sean Ferm	IHSL	SF
Matthieu Dannoot	IHSL	MD (dial in)
Brian Currie	NHSL	BC
Iain Graham	NHSL	IG
Graeme Greer	NHSL	GG
Stuart Davidson	NHSL	SD
John Ballantyne	IHSL	JB
Janice McKenzie	NHSL	JMcK
Lyn Pentland	NHSL	LP
Graham Coupe	IHSL	GC
Liane Edwards-Scott	IHSL	LE

Apologies:

Paul Serkis	IHSL	PS
Jackie Sansbury	NHSL	JS
Maureen Brown	Motts	MB
Sorrel Cosens	NHSL	SC
Moira Pringle	NHSL	MP

Distribution (over and above attendees):

Andy Orr	IHSL	AO
Panya Upama	IHSL	PU

RHSC & DCN
At Little France

1.0 Review of previous minutes		Action	Target date
1.1	No Comments		
2.0 Updated programme to FC			
2.1	Schedule 29 to be updated to note planning approval for EC Flue. • Planning conditions tracker to be distributed	IHSL	
2.2	Building Control • Building Warrant Tracker to be distributed • BM confirmed building warrant stages agreed with CEC. Initial submissions made & progressing with Building Control Officer. • Future building warrant distributions to include Sean Ferm	IHSL	
2.3	Programme Update for 11/11/14: • Construction Period to be confirmed *PMN: Construction Programme Rev C now in circulation*	IHSL	
2.4	LTA – all information issued except: • Derogations Schedule • GSU Calcs • RDD – (dates to be populated) • FM/Lifecycle Costs – Wrongly grouped equipment to be resolved • Revised Opex to be agreed W/E 14/11/14	IHSL	
3.0			
3.1	Derogations: • C30 Clarifications to be drafted as final derogations as necessary.	IHSL	
3.2	GSU & SoA: • GSU & SoA to be coordinated. • Comments on SoA to be circulated for review & Address • PMN: Revised SoA & GA's issued for review	All Motts	
3.3	RDD: • Part 1 & 2 – Complete • Part 3 – Motts reviewed & comments to be issued – 10/11/14 • Part 4 – Motts collated comments & comments to be issued - 10/11/14 • Part 5 – Schedule Part 31 – Issues to be resolved/met post FC (GC & BCF to meet when consort return comments)	 Note Motts Motts IHSL	
3.4	Environmental Matrix: • Room Types agreed • No. of rooms to be agreed (to be realigned with correct SoA) • Matrix to be updated • Meeting set up with Motts /WW 11/11/14	 Note IHSL IHSL	
3.5	Legal: • On target • V5 of PA to be circulated (Subject to Schedule 29 Review) • PCP's to be issued in word format for Macroberts review • Schedule 11 (Equipment) to be reviewed & Agreement on versions of Group 1 Board specified items to be included in PA.	 Note MacR IHSL All	

3.6	Funder Approval process: • Commercial close anticipated prior to Xmas – 19/12/14	Note	
3.7	IG noted blacklisting issue to be considered & included in PCP's.	IHSL	

From: Greer, Graeme [graeme.greer@[redacted] on behalf of Greer, Graeme
Sent: 11 November 2014 15:46
To: Stacey McClatchie [Stacey.McClatchie@[redacted] Ken Hall [ken.hall@[redacted] McKechnie, Stewart [Stewart.McKechnie@[redacted] Brendan.Rooney@[redacted] [Brendan.Rooney@[redacted] Brown, Maureen [Maureen.Brown@[redacted] Macrae, Colin [Colin.Macrae@[redacted] Halcrow, Fiona (Fiona.Halcrow@[redacted] [fiona.halcrow@[redacted] Stillie, David [David.Stillie@[redacted] Davidson, Stuart X (Stuart.X.Davidson@[redacted] [Stuart.X.Davidson@[redacted]
Subject: RE: Environmental Matrix NHSL Comments Feedback
Attachments: 111114 RDD Part 4 Enviro Matrix comments.docx

Dear all,

Notes attached from todays meeting,

Kind Regards
Graeme

-----Original Appointment-----
From: Stacey McClatchie [mailto:Stacey.McClatchie@[redacted]
Sent: 07 November 2014 14:17
To: Stacey McClatchie; Ken Hall; 'McKechnie, Stewart'; 'brendan.rooney@[redacted] Greer, Graeme; Brown, Maureen; Macrae, Colin; Halcrow, Fiona (Fiona.Halcrow@[redacted] Stillie, David; Davidson, Stuart X (Stuart.X.Davidson@[redacted]
Subject: Environmental Matrix NHSL Comments Feedback
When: 11 November 2014 14:00-16:00 (UTC) Dublin, Edinburgh, Lisbon, London.
Where: MacKinlay Room

When: 11 November 2014 14:00-16:00 (GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London.

Where: MacKinlay Room

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*~*

Mo,

Can you please forward to the necessary attendees from the NHS.

Thanks,

Stacey

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From: Mr Ronnie Henderson - NHS Lothian <[redacted] on behalf of Mr Ronnie Henderson - NHS Lothian
Sent: 18 April 2018 09:11
To: Mr Stewart McKechnie - Wallace Whittle; Mr Ken Hall - Multiplex Construction Europe; Mr Kamil Kolodziejczyk - Mott MacDonald Ltd (Head Office UK); Mr Douglas Anderson - Mott MacDonald Ltd (Head Office UK)
Cc: Mr Colin Grindlay - Multiplex Construction Europe; Mr Andrew McColl - Multiplex Construction Europe
Subject: Re: 12.04.18 4 Bed Workshop Summary

Hi Ken,

I note the attched schedule rev 05 still refers to Air Change rates between 2.7 & 3.5, we are seeking design for 4 Air Changes to all 14 rooms. Can you confirm that this is the brief to WW

Regards

Ronnie

From: K Hall
Sent: 17/04/2018 2:52:00 PM BST (GMT +01:00)
To: Douglas Anderson, Kamil Kolodziejczyk, Ronnie Henderson, Stewart McKechnie
Cc: Colin Grindlay, Andrew McColl
Mail Number: MPX-MM-000503
Subject: 12.04.18 4 Bed Workshop Summary

Confirmation of Key Points discussed.

Attendees: as attached.
Marked Up Drawings Tabled: as attached.
Agenda: as below - (MPX-GC-026334)
Date and Time: 12.04.18 @ 13.00Hrs

1.0 SM noted concerns on agreement from the previous workshop No1 that the objective of workshop No2 was to obtain agreement in principle on the draft drawings being tabled to allow progress to continue on 4 bed design. This was due to NHSL held up at another meeting, and no delegated authority at the workshop.

Action. Concerns resolved as Ronnie Henderson joined the workshop at 13.30.

A. 4 BED Agenda Item

2.0 14 Rooms in question tabled based on the previous Rev 05 schedule. Rooms cross referenced drawings against the schedule. See attached schedule and drawings over viewed.

3.0 Room "M" type. NHSL noted environmental matrix notes supply and extract. Drawing tabled and site inspection has no changes to the extract.

Action: TUV SUD to confirm design intent to comply with the environmental matrix.

4.0 Area I + J. NHSL requested actual air change rates be confirmed given the increase in one extract system rather than perhaps introducing it across the 3 systems in the locale.

Action: Increase in air change rate(s) to be identified due to noise concerns.

5.0 Physical sizes of all increased duct sizes to be verified at site to confirm any spatial constraints.

Post meeting note: Surveys confirmed to proceed 18.04.18. Findings to be shared with NHSL.

6.0 NHSL confirmed agreement in principal to the strategy tabled, and to proceed to the next stage of site survey based on drawings tabled. Thereafter RDD pack to be submitted for speedy approval.

7.0 Spare capacity. TUV SUD tabled the initial draft assessment:

Supply: No impact as being maintained at 4ACH as per the Environmental Matrix.

Extract: AHU-04-06: extract up by 23%.
Extract: AHU-04-07: extract up by 10%.
Extract: AHU-04-08: extract up by 15%.
Extract: AHU-02-23: extract up by 36%.
Extract: AHU-04-04: extract up by 6%.

TUV SUD noted dialogue with Supplier of AHU being undertaken.

Action: Spare capacity impact analysis document to be issued after site checks carried out on spatial review to identify impact on current spare capacity to allow NHSL to consider if the design can proceed on this basis.

B. Spare Capacity Document

NHSL noted receipt of spare capacity document. Comments on the document to be tabled at next workshop.

8.0 NHSL noted the document issued per department had the comments removed that were in the original spare capacity document issued. Specifically for example the fans in relation to 10% spare capacity comment. NHSL reiterated clarity if the fans had 25% spare capacity, this was confirmed by TUV SUD.

Action: TUV SUD to confirm statement made at the meeting, ventilation 25% design spare capacity on the fans.

C. Schneider Agreement

9.0 TUV SUD statement distributed at the meeting,

Action: NHSL to feedback at next workshop.

D AOB

10.0 NHSL requested Thursday meetings continue, perhaps alternated mechanical and electrical depending on topics to be resolved.

11.0 TUV SUD queried if generator load profile document had been returned by NHSL / MPX.

MPX confirmed after meeting TUV SUD were issued the document on 10.04.18.

Action: TUV SUD to confirm feedback on NHSL comments received.

12.0 NHSL noted query regarding earth cable and fire rated cabling. To be discussed and agreed at next workshop. NHSL requested formal confirmation to the points raised within original calculations feedback.

Action: TUV SUD to respond to Aconex MPX-GC-026161 dated 29.03.18.

Next meeting: Thursday 19.04.18, agenda to be issued prior to meeting.

From: K Hall
Sent: 11/04/2018 3:36:34 PM BST (GMT +01:00)
To: Douglas Anderson, Ronnie Henderson, Stewart McKechnie
Cc: Colin Grindlay, Andrew McColl
Mail Number: MPX-GC-026334
Subject: 12.04.18 Thursday M+E Workshop 13.00Hrs

Confirmation of agenda items to discuss tomorrow, 13.00Hrs, MPX Conference Room.

1.0 Tabling of 4 Bed Design - 14 Rooms

2.0 Feedback on Spare Capacity Review - Specific Departments

Clinical Management Suite

Family Hotel

Shelled rooms

Out patients

Child life and Health

Clinical Research Facility

Multidisciplinary offices in wards

Sphere

Class rooms

Health records

3.0 Update on Schneider Agreement - Electrical Distribution 90/70 degree debate v's BS 7671 Derating

From: Currie, Brian [brian.currie@ on behalf of Currie, Brian
Sent: 25 June 2019 10:38
To: Callum Tuckett [Callum.Tuckett@ Roger Thompson RMT [roger@ Matthew Templeton [matthew.templeton@ Goldsmith, Susan [Susan.Goldsmith@
Cc: Wallace Weir [weir@ craig.simpson@ [Craig.Simpson@ Bob Brown [Robert.Brown@ Darren Pike [Darren.Pike@ David Wilson [David.Wilson@ Colin Grindlay [Colin.Grindlay@ Henderson, Ronnie [Ronnie.Henderson@ Davidson, Stuart X [Stuart.X.Davidson@ Mackenzie, Janice [janice.mackenzie@ Graham, Iain [iain.graham@ Davidson, Stuart X [Stuart.X.Davidson@
Subject: RHCYP + DCN - Little France - IOM Issues Log dated 25 June 2019 - URGENT
Attachments: RIE_Childrens hospital issues log-rec from IOM 25 June 2019.pdf

For the avoidance of doubt, this transmittal, all attachments and our ongoing discussions concerning ventilation proceed entirely without prejudice to our whole rights, remedies and pleas and cannot be referred to or relied upon by you in any circumstances whatsoever without our express consent.

Please find attached first issues log just received from IOM.

This follows previous emails and a discussion at yesterday's Steering Group meeting.

We confirm our availability to participate in a telephone conversation on these matters at 10.00am this Friday and to meet before at IHSL's request.

We note Bob Brown's recent email to assist in these matters and we will advise availability of the Board's AE in due course.

We look forward to hearing from you at your earliest convenience.

Meantime we continue to reserve our whole rights, remedies and pleas.

Regards

Brian

Brian Currie
Project Director - NHS Lothian
RHCYP + DCN Site Office

T:
M:
E: brian.currie

PROUD HISTORIES | NEW CHAPTERS

****

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Area	item	Issue
General	Systems do not appear to have been commissioned well	Various issues identified below
General	Swirl diffusers have been widely used in the development.	Not normally used in critical areas like theatres as they can be difficult to measure accurately with balometers and they can impact on wound site velocity
Preparation	Some areas are not completed and ready for handover. Eg ceiling tiles still missing	
Theatres	Very limited extract in theatre corridors. Corridors are not at 0 absolute pressure and do not meet required 7 ach/hr (SHTM03-01 part A appndix 2 Table A2)	No escape for surplus air. Could impact on open door protection. Pressure in corridors is pushing fire doors open
Theatres	Issues with doors, door actuators, closers and interlocking to DU's	
Theatres	Some prep rooms do not meet reaquired air supply volumes. (theatres 35, 31, 32, 33 and 38)	Should be 100l/s for SPS room.
Theatres	Most theatres do not properly control temperature	There are a number of faulty control valves on plant/heater batteries
Theatres	Concers about open door protection (eg theatre 34)	Theatre supply 1171, LLE365, scrub 73. Leaves 733 for open door vs required 750.
Theatres	UCV clean zone not marked in flooring - not tape but alternative coloured zone or lines in flooring.	Para 7.108 of SHTM 03-01 part A and Para 6.26of HBN 26 which states 'In theatres with ultra-clean ventilation the floor area enclosed by the hood should be marked with lines or a contrasting coloured area of flooring'.
Theatres	Some fabric issues in theatres (eg holes to fill and under benching gaps to fill)	
Theatres	Theatre 33 - 4 cells fail 0.2 test at 0.17m/s. Filter screen may have been adapted	Re-commission UCV - may need HEPA filters as pressure drop is 170pa vs typical 100/110 for clean filters
Theatres	It is understood that extract grilles in DU are supplied one from each theatre.	Systems will need to be interlocked so both theatres are running when any one is in use.
Theatres	Dirty utility extract rates do not meet requirements in some theatres. Should be 410l/s.	Theatres 30, 36, 37, 33, 38.
Theatres	issues on some theatre light stems, covers missing, not well fitted and cabling exposed	
Theatres	Individual grilles in conventional theatres not balanced which can impact on air flows at patient wound site.	BSRIA Guide AG 3/89.3 Table 1 page 10 requires them to be within 10% of lowest grille reading.
Theatres	Noise slightly high in UCV theatres	measurements 3.5 dbA above requirements. We would expect new facilities to meet the SHTM stsndard.
Theatres	UCV hepa filter pressure drops relatively high (140-170 pa) compared with expected 100/110 pa for new filters	
Theatres	Hepa filter screens on UCV are distorted in places	
Isolation rooms	Several isolation rooms on one AHU. HBN 04-01 supplement 1 (2013) Para 2.37 states that ideally each isolation suite should have its own supply and extract system.	Para 2.37 of HBN 04-01 states that ideally each isolation suite should have its own dedicated supply and extract system
Isolation rooms	Some isolation rooms not achieving the required 10 ach/hr	Min running at 5 ach and some just under 10
Isolation rooms	Back up arrangements appear to be very complex and as such likely to be challenging in future	
HDU's	Only achieving 3-4 ach/hr vs required 10	NHS have apparently agreed this??
AHU's	Filter pleat orientation incorrect on top row of final filters	Should be vertical
AHU's	Pre filters showing signs of bypass	
AHU's	Magnahelic gauges not marked for clean and dirty limits	
AHU's	Insufficient access for cleaning (eg inlets) and access hatches are too small for cleaning/maintenance	
AHU's	Some duct traverse test points are not plugged	
AHU's	Surplus drip tray in AHU (?humidifier removed?). Tray drain is not blanked off	
AHU's	Cooling coil drip tray area not easy to clean. Cooling coil baffles cannot be easily removed due to cable installation	
AHU's	Trap arrangements incorrect. No suitable air gaps and traps dirty and incorrectly installed	
AHU's	Magnahelic gauge scale too wide	1-500pa wheras 1-250 reflects likely filter pressure drops
AHU's	Motorised dampers take a long time to open and close which impacts on the speed of auto-changeover	No spring return fitted so may not close in the event of power failure.
AHU's	Plant labelling incorrect and shows incorrect areas served.	Temporary labelling installed
AHU's	Branch ducts not generally marked up to show areas served	
AHU's	Auto change over arrangements need to be fully tested. Some MD's do not close on plant isolation and some units will not re-start after both motors have been isolated.	
AHU's	Some motors running at over 95% speed so there is limites scope for system to overcome dirty filter pressure drop and maintain system performance	
BMS	Communication problems beteen BMS and AHU (eg theatre 33)	
BMS	It is not clear if critical plant will operate in stand alone mode in the event of issues with BMS or comms	

AUHs	cableing inside AHU also cable connectors inside AHU, potentail for electrical faults to cause as ource of fire within the airstraem. Potentail for smoke/fume to enter clinical areas	Similar situation was found at an NHS hopspital in the NorthEast 2016 all wiring had to be removed from AHUs before handover to Trust

High Value Change Notice

Project:	**RHCYP & DCN**

1 – Issue of Change Notice to Project Co			
Title:	**Paediatric Critical Care Ventilation**		
Reference No:		**Date:**	
Target Cost Capital:	**£1.9m**	**Target Cost Revenue:**	**TBA**

High Value Change Requirements (Schedule Part 16, Section 4, Clause 2.1.3)

In accordance with Schedule Part 16 (Change Protocol), the Board requires Project Co to Design, Supply and Install a ventilation system or systems capable of delivering 10 air changes/hour at +10kpa as per SHTM 03-01, Appendix 1, Table A1 to the following rooms:

1-B1-065 including 1-B1-022, 1-B1-069, 1-B1- 076 and 1- B1-071 which are all open to 1-B1-065
1-B1-075
1-B1-063
1-B1-037
1-B1-031
1-B1-021
1-B1-020
1-B1-019
1-B1-009

All environmental requirements for all spaces served by these systems shall be met.

All works to be carried out and monitored after and with reference to a collaborative full Stage 3 HAI SCRIBE assessment being approved by NHS Lothian.

Design development to include input from the board and all appropriate stakeholders.'

Value for Money Assessment (Schedule Part 16, Section 4, Clause 2.1.4)

To allow the Board will assess whether the High Value Change Stage 2 Submission offers it value for money the submission shall include as a minimum the following information:

- A detailed and fully quantified pricing schedule for the construction works
- A detailed breakdown of all Preliminaries and general cost items
- Construction issue drawings and specification
- Proposed construction programme
- Construction phase method statement

Date by which parties are required to meet to review the High Value Change	*Input 5BDs*

Notice and agree the content for the High Value Change Proposal (Schedule Part 16, Section 4, Clause 2.3.1)	*following receipt of Notice*

To: **IHS Lothian**

We require the Change described above.
Please advise when Project Co will submit a High Value Change Proposal for the above.

Signed on behalf of NHS Lothian: ……..

Name of Signatory (type or print): …… ……

Date: ……..

DRAFT

SCOTTISH HOSPITALS INQUIRY

Hearing commencing 24 April 2023

Bundle 12 - Substantive Core Participant responses to Provisional Position Papers and Supporting Documents (External Version) - Volume 2 (of 2)