SCOTTISH HOSPITALS INQUIRY

Bundle of documents for Oral hearings commencing from 13 May 2025 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Bundle 43 – Volume 2
Procurement, Contract, Design and Construction, Miscellaneous Documents

Table of Contents

Project Name	Implementation of ASRII (New Acute and Children's Hospitals)
Project Sponsor	Helen Byrne, Director of Acute Services Strategy Implementation and Planning, NHS Greater Glasgow & Clyde
Terms of Reference	The Acute Services Review Programme Board (ASRPB) had initiated the implementation of the Acute Clinical Strategy. The overarching arm of the Strategy is to ensure long-term clinical and financial viability in tandem with a re-design of the delivering of patient service linked to an extensive patient focused information technology system. The ASRPB commissioned a Steering Group (Project Executive Group – PEG) to take overall responsibility to deliver the programme of work in relation to the development of the Southern General campus to include the new South Glasgow Adult Acute Hospital, new Children's Hospital and related estate with clear milestones agreed with ASRPB and to operate within a clear framework of delegated decision making, working through agreed project management arrangements. 1. To oversee the work of the project teams including the external advisers to achieve key milestones, to meet project timescales within cost. 2. To ensure completion of, and get approval for, the Outline Business Cases (OBCs) for the new South Glasgow (SGH) and Children's (CH) Hospitals, for submission to the appropriate Board forum and subsequently to the Scottish Executive for approval. The OBCs will outline the options for the new SGH and CH respectively with clear design briefs and design solutions and relevant supporting information. 3. Once the OBC for the SGH & CH is approved, to oversee the PFI Procurement Process including: a. Advertisement in the OJEU and identification of potential providers and the best privately financed solutions; b. Selection of a preferred bidder with whom negotiations can be completed, involving stakeholders in the assessment of the proposals c. Completion of all necessary detailed work towards full business case, obtaining necessary internal and external approval at key stages; d. Finalisation, award and implementation of the contract To determine the most appropriate procurement strategy for the children's hospital, which will be financed from direct public funding and to ensure delivery on all key stages of the new hospital.

Terms of Reference

4. To co-ordinate the respective Procurement Processes of the SGH and CH to maximise the benefits of co-location and concurrent construction programmes and to minimise all associated risks.

5. To ensure ongoing progress against key milestones with regular evaluation and monitoring of the project.

6. To ensure the necessary senior managers, clinicians and staff maintain regular and ongoing involvement in the project, ensuring the necessary ownership at the most senior levels in the organisations.

7. To oversee appropriate patient and public involvement in the design/construction/processes of the new South Glasgow and Children's hospitals.

8. To ensure integration with other elements of ASR planning and other service plans and developments including national and regional planning.

Key Aims/ Objectives

- Produce detailed project plan identifying milestones, deadlines and critical elements to success to achieve OBC
- Complete and submit OBC to SE CIG
- Provide outline design plan for both new hospitals
- Develop Risk Register
- Develop and submit proposals for the procurement method for both hospitals
- Complete option appraised process including financial, economic, non-financial benefits and risk
- Complete benefit appraisal
- To work with staff and re-design team to identify optimum patient journeys or processes and work with design team to ensure the building design facilitates this
- Develop hospital design to radically improve acute and children's services
- Complete Campus plan for submission to obtain outline planning permission
- Develop and maintain appropriate communications with all stakeholders
- Submit proposal on strategies for FM services
- Understand needs of clinical users
- Develop project plan beyond OBC to achieve Full Business Case and financial close

Project Structure and Controls

The implementation of NHSGG&C Acute Strategy Review will be overseen by the ASR Programme Board

A Steering Group (PEG) is required to drive the implementation of each phase of work
The Steering Group will be Chaired by the Project Sponsor
The Steering Group will comprise appropriate representatives form those with an interest in acute services, including staff side representation, community representatives and CHP's
A Project Team will be established to service the Steering Group and ensure ASR II is driven forward at the appropriate pace of progress

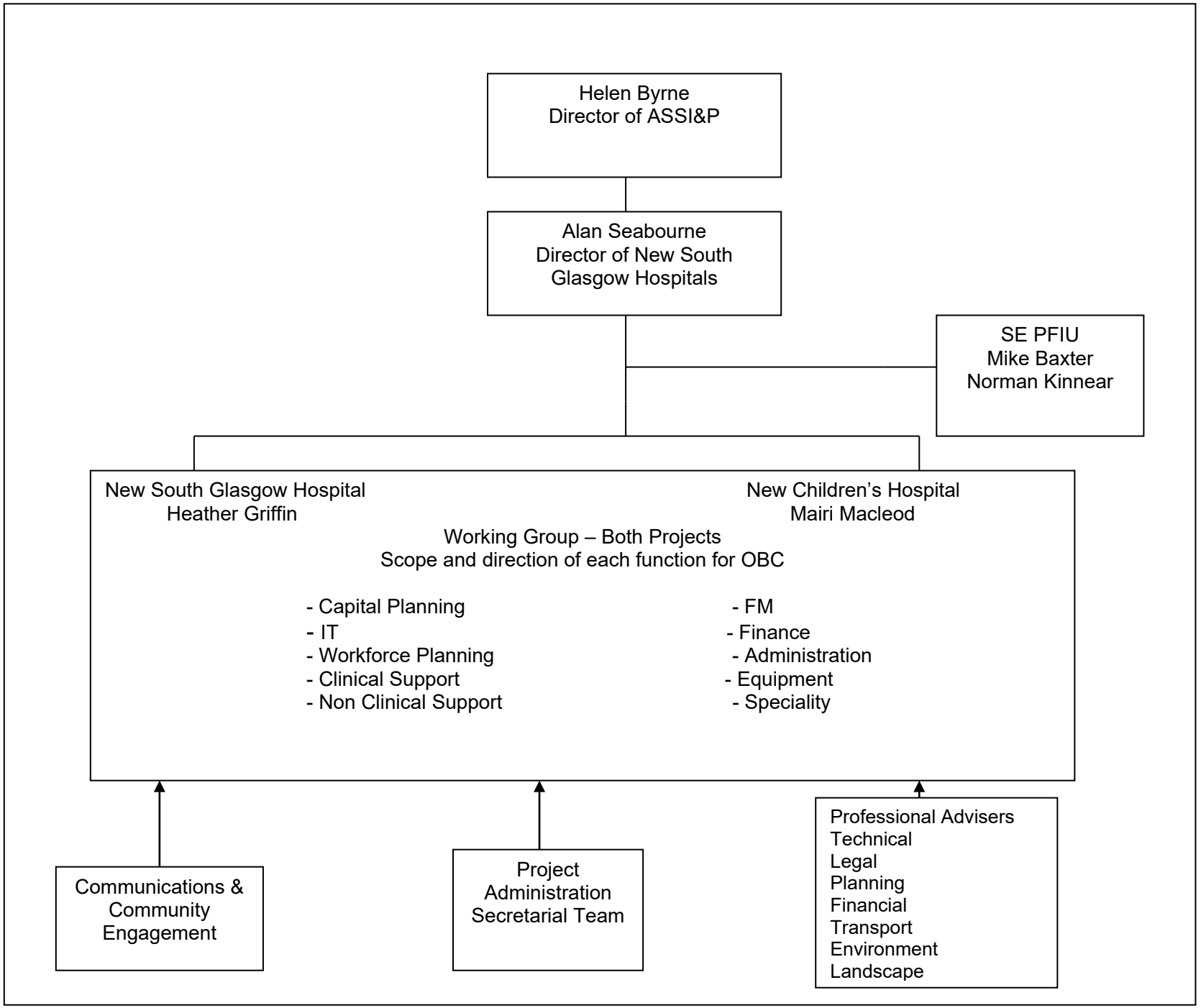
The Project Team will be led by a Project Director and supported by a Project Manager for each of the two new hospital developments. The Project Team will also include Capital Planners, Financial Planners, re-design staff. This team will be responsible for commissioning and managing all external advisers including – Financial, Technical, Legal etc.

A structure will be put in place to manage the progress and review of above. See diagrams.

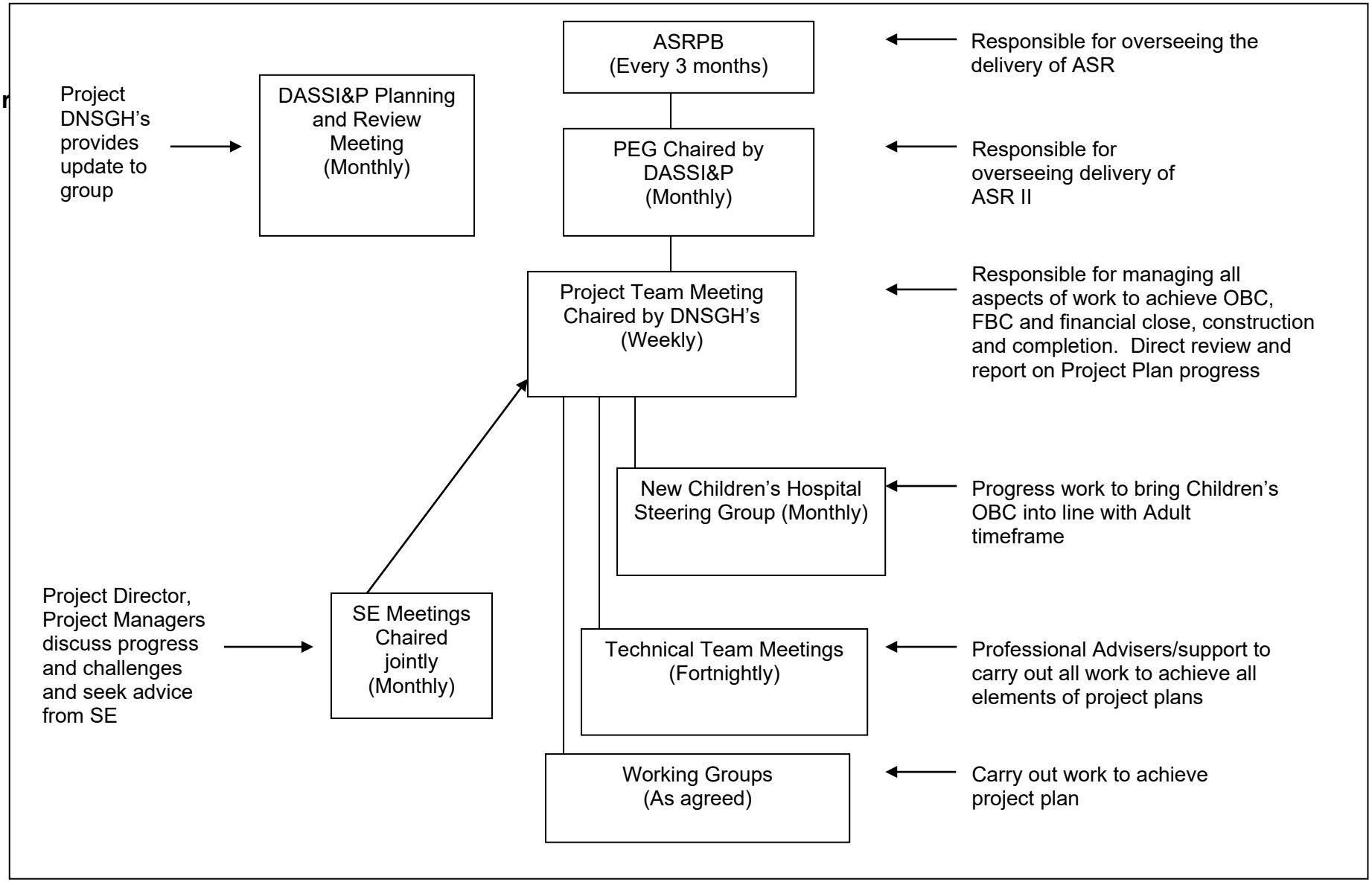
A series of Working Groups will be set up to undertake detailed planning of the work necessary to complete the OBC
Leads from each Working Group will be put in place to lead the delivery of the aims and objections set out in the Working Group briefs.

Specialist external professionals will be commissioned to support the Steering Group, Project Executive Group, Project Teams and all the Working Groups.

Diagramatic Representation of Project Structure



Project Structur and Controls



Working Principles

All Groups will work in accordance with the principles and protocols set out below and in the spirit of good partnership working

- Meet regularly (set out meeting schedule)
- Agenda and relevant papers will be circulated 5 working days in advance of monthly meetings
- All members will receive papers
- Minute circulated in draft no more than 5 days after each meeting
- Members will respect each other's views and will allow others a fair share of air time during meetings
- Members will raise any concerns they have relating to process or method with Chair's as and when they arise and not following the conclusion of the process
- Members will complete the actions assigned to them within agreed timescales
- Members will make every effort to arrive at consensus decisions
- Appropriate recommendations will be submitted to ASR, PRG or Board for approval
- Members will act corporately - ie should be supportive where possible of the consensus view
- Members will make themselves available to answer questions from staff and will play a proactive way role in cascading information about implementing ASR II

Benefits

Benefits

1. Provision of a New Adult & Children's Hospital complex which will be state of the art in all aspects of its design, construction and operation and puts in place the renewal of another part of Glasgow's acute healthcare facilities
2. Meets a major element of service provision through implementing next stage of ASR
3. Provides radically redesigned clinical services to meet the needs of the local and wider Scottish population
4. Public, staff and other agencies involved in developing design
5. Achieves greater clinical adjacencies and co-locations within and between Adult Acute & Children's Acute Services
6. Provides greater value for money than compared to the present service configuration
7. Will improve recruitment of all types of staff
8. Puts patients at the heart of service planning
9. Will operate in conjunction with new hospitals at Stobhill and Victoria

Key Milestones /Deadlines ***(Initial Plan)***

Project launch		-	April 2006
Project Plan Approval		-	June 2006
Schedules of Accommodation		-	September 2006
Do-ability Plan		-	September 2006
Option Appraisal		-	October 2006
Gateway Review		-	November 2006
Submitted OBC to Board SE		-	December 2006
OBC considered by SECIG		-	January 2007
Complete PSC		-	February 2007
Pre OJEU Key Stage Review		-	March 2007
Submit Outline Planning Document		-	March 2007
OJEU Notice Posted		-	April 2007
Start Bidding Period	Competitive Dialogue Period	-	July 2007
Complete Bidding Period (select PB)			
Financial Close		-	December 2008
Start on Site		-	January 2009
Completion of Works		-	September 2012
Commission		-	December 2012

Interface With Other Projects On SGH site

Projects Affected	Action
Maternity refurbishment	Project Director of NSGH's will put in place arrangement for communication, liaison and joint design and construction. Members of Project Team (Major Projects Manager) will be co-ordinating all activity on SGH site. Set up design team liaison meeting.
Enabling works for new hospital development on SGH site	Within control of Project Team
Laboratories development	Liaison through new acute hospital project manager who is on Laboratory Steering Group and the sharing of all minutes.
University Development	Liaison through New Children's Hospital Project Manager playing lead role in University developments on SGH site.

Key Risks

Full risk assessment programme set up to inform project will be set up. Minimum workshop requirement

-	Risk Workshop	-	(Types of Build and Procurement ①)	-	January 2006
-	Risk Workshop	-	(Types of Build and Procurement ②)	-	August 2006
-	Risk Workshop	-	All risks - A assignment of risk - Cost of risk	-	October 2006

The outcome of the above work will be fed into the appraisal process.

Steering Group Membership

PEG Membership
ASRPB Membership
SE
NCHSG
Technical Team
NSGH'sG
DASSI&P
PTM

Stakeholder Communication Plan

Background

Over the next few years the Southern General Campus will undergo a major redevelopment as part of wider plans to modernise ar redesign hospital services across the city.

This will include the development of

- A new South Glasgow Hospital that will provide general medical and surgical inpatient care, a range of specialist health services and A&E services for the south of the city
- A new children's hospital to replace the existing children's hospital at Yorkhill. This will be co-located alongside adult and maternity services to provide the best care for mothers and children
- A refurbished maternity unit which will become one of the two maternity hospitals serving the city

Effective communications are vital throughout the redevelopment of the campus. A comprehensive communications plan will therefore be required to raise awareness, understanding and support for the new hospitals amongst all key stakeholders.

Aims and Objectives

The communications plan will aim to:

- Raise awareness of the plans for the new hospital and the wider redevelopment of the Southern General Campus
- Build and maintain enthusiasm for the project amongst the local community
- Ensure staff, patients, the general public and other key stakeholders are kept updated as plans progress – including key milestones and decisions

Highlight benefits for patients, staff and the local community – including new or improved facilities and services, economic impact and contribution to the wider regeneration of the Govan area

Stakeholder Communication Plan

Communications Framework

The following core tools will provide a framework for communications throughout the planning and development of the Southern General Campus. They will also underpin communication plans for each of the key projects, therefore ensuring a consistent and integrated approach to communications across the entire Campus.

Internal Communications

NHSGGC Core Brief – this electronic bulletin, which is used to brief staff across the organisation on key developments, decisions and achievements, will be used to update staff on developments across the Southern General Campus, including the new South Glasgow Hospital, new Children's Hospital and refurbishment of the maternity unit.

NHSGGC Staff News - the bi-monthly NHSGGC staff magazine, which is circulated to 44,000 staff across the organisation and available online via the intranet, has already carried several features on plans for the new £550m Southern General Campus. It will be used to update staff as plans progress and showcase artist's impressions of the new hospitals as soon as they are available.

NHSGGC Intranet - work is underway to create a single NHSGGC intranet that will reflect the new organisational structure and provide a key tool for communicating with staff. Each of the new acute directorates and partnerships will have the ability to populate their own local pages with details of latest news and events, key documents and reports and updates on key projects including the redevelopment of the Southern General Campus.

Staff Briefings – in recognition that there is no substitute for face-to-face briefings, all the above will be underpinned and supported by a regular programme of staff briefings and open drop-in sessions to update staff on the development of the new South Glasgow and Children's Hospitals. These will be organised and staffed by key project leads and, where appropriate, involve relevant clinical and HR Leads.

External Communications

NHSGGC Website - receives around 10,000 hits a month and is currently being redesigned to create a more attractive and user-friendly site. A new section has been created for the Southern General Campus with links to the latest news and information on the two new hospitals and the refurbishment of the maternity unit.

Health News – the bi-monthly NHSGGC newspaper that is circulated as an insert in the Daily Record and widely distributed across Greater Glasgow and Clyde, is a key vehicle for updating patients, the general public and other key stakeholders on the latest health news. It has already carried a series of articles on the hospital modernisation programme and will be used to provide regular updates on the redevelopment of the Southern General Campus as plans progress.

Stakeholder Communication Plan

Media Relations – the communications directorate will work with project leads to identify promotional opportunities to maximise media coverage on the redevelopment of the Southern General Campus. To-date there have been major features in the Govan Press, the Evening Times and key business publications. This proactive work will inform the development of an action plan of activities to promote the new hospitals on an ongoing basis. Communications will also explore opportunities to develop campaigns and joint initiatives with key media partners.

Stakeholder Briefings – regular one-to-one briefings with key stakeholders such as local MSPs, business leaders and university colleagues will also be arranged to ensure they are kept updated on the development of the Campus.

Community Engagement

These core communication tools will support the work of the community engagement team and their activities to engage patients and their families in the development of the new South Glasgow Hospital.

Community Engagement – the Community Engagement Team will work to inform and involve communities in the development of the new South Glasgow Hospitals. Geographical communities, patients, parents, carers and those with an interest in the new hospitals will be targeted. Two Community Engagement Managers will lead on this work:

New Children's Hospital – following an extensive programme of consultation with families, children, young people, charities and voluntary groups a community engagement structure has been agreed. This structure, will manage a comprehensive 5 year programme of engagement that seeks to:

- Build relationships with all interested groups
- Ensure that all aspects of engagement are conducted in an inclusive, sensitive and values-based manner
- Work with colleagues to ensure that patient and family input is central to the planning and design processes
- Develop special PFPI initiatives for children and young people
- Develop community ownership for this significant development
- Ensure compliance with 'Fair for All' in promoting equality of participation and considering the specific impact of the development on any communities or equalities groups

Stakeholder Communication Plan

A Community Engagement Advisory Panel with representation from clinical and nursing staff, support services, families and young patients will oversee this activity. It will ensure that the widest possible range of views are represented; that these are fed back into the planning and design processes; and that this activity is understood and supported within Yorkhill.

A **Youth Panel** has been established to make sure that the issues, needs and hopes of young people are included in the design of the new hospital and a **Family Panel** will provide guidance on how best to engage with families and to include their ideas in the planning and design processes.

A Community Engagement Manager, Kate Munro, will manage these structures. In association with the Office of the Children's Commissioner for Scotland, the National Steering Group for Specialist Children's Services and the Scottish Health Council she will be responsible for re-interpreting the PFPI agenda to ensure its' appropriateness for teenagers and children thus ensuring their full engagement. She is also responsible for ensuring that this process meets NHSGG&C's statutory responsibilities and PAF on Patient Focus and Public Involvement.

New South Glasgow Hospitals' Campus Engagement

Due to the scale of the investment represented by the new hospital's development it will have a significant positive impact on the South West of Glasgow. Opportunities exist to secure added value from this development both to the benefit of the local community and to the hospital development. New planning guidance requires community engagement on major developments. Key areas such as employment, transport, housing, art and the environment and regeneration will be the subject of joint working initiatives. A Community Engagement Forum involving key stakeholders from relevant agencies and community representation will oversee this work.

Mark McAllister, Community Engagement Manager, will service the work of this Forum and is also the Project Team's representative on or link with the following working parties, fora and organisations: Communities Scotland, Glasgow City Council Area Forums, Govan Action Plan Steering Group, Govan and Craigton Housing Forum, South West Glasgow Community Planning, South West Glasgow CHCP, Govan Initiative (Local Enterprise Company), Clyde Waterfront Regeneration Ltd and local Community Councils.

South West Glasgow CHCP will have a particular role to play in realising this approach and helping to maximise the benefits the development could bring to local communities.

The Community Engagement Manager also works with patients, carers and community groups to ensure that their views inform the design, construction and processes associated with the building of the New Hospitals. He is also responsible for ensuring that this process meets SE guidance and legislation on Patient Focus and Public Involvement and Planning Guidance on Community Engagement, best practice on Community Engagement and, with the support of the Board's Corporate Inequalities Team, championing the diversity agenda.

NHS Greater Glasgow & Clyde

Children's Hospital & Acute Hospital PFI Project

Soft Facilities Management – In-house Bidding Process & Support

March 2007 (Final Version)

The PFI process (Soft FM Delivery)

1.0 The main characteristic of a PFI project are:

- The long-term nature of the contract (approximately 30 years) between the public sector procurer and private sector service provider;
- The transfer of design and construction risks to the private sector through the use of output specifications;
- The transfer of building life cycle and maintenance risks to the private sector through the inclusion of life cycle and hard FM services in the contract; and
- The potential for a broader range of Soft FM Services to be included in the contract and delivered by the private sector provider.

1.1 In procuring the new Children's & Acute Hospital PFI Project, NHS Greater Glasgow & Clyde wants its existing in-house service providers to have an opportunity to participate in the process whenever possible. As discussed above, this can only be in the area of Soft FM Services as Hard FM must be undertaken by the private sector service provider to deliver the risk transfer which forms a core element of a PFI contract.

1.2 The Scottish Executive and STUC are equally keen for a sound and fair process to be followed for in-house service provider's participation in procurements of this nature, and in 2002 published guidance "The Protocol" which NHS Greater Glasgow & Clyde is following. The Protocol provides that a decision between in-house and private sector provision of Soft FM Services must be made on Value for Money (VfM) grounds and that this VfM decision should not be skewed by any less favourable conditions of employment that may be offered by private sector bidders to their workforce.

1.3 The Protocol allows for a decision between in-house and private sector Soft FM provision to be made prior to commencing procurement where a clear VfM case can be made at that stage. NHS Greater Glasgow & Clyde considered this in detail and decided that it would not be possible to make a robust decision prior to the procurement as there was not a clear VfM case in favour of either option. The second option in The Protocol is for the decision to be tested through the procurement by evaluating competitive bids from the private sector and in-house service provider's for comparable Soft FM Service provision. NHS Greater Glasgow & Clyde has adopted this approach and will be testing private sector provision of Soft FM Services (with TUPE transfer of staff as appropriate).

1.4 The In-House Bid Team is responsible for preparing the in-house bid for the provision of Soft FM Services that will be evaluated against private sector provision.

2.0 External Bids

The PFI Bidders will be asked to submit the following Bids:

Bid 1– this will contain detailed proposals for the design, build, finance and maintenance (both hard and soft FM) of the new facilities;

Bid 2 – this will contain detailed proposals for the design, build, finance and maintenance (hard FM only) of the new facilities;

Bid 3 – this will contain detailed proposals for the provision of Hard and Soft FM services for the retained estate.

2.1 Services to be tested

The In-House Bid Team must bid for the following Soft FM Services:

Soft FM	Hard FM (Provided by successful bidder)
Sewing Room	Grounds Maintenance
Porter	Estates Maintenance
Domestic	Estates MC Works
Internal Waste	Energy Management
Mail	Boilerhouse
Lab Spec	Estates Workshop
Patient Meals	
Staff Meals	
Hospitality Catering	
Security	
Marshalling Yard/Distribution	
Waste Compound	
Medical Gas Cylinder Store	
Cashier Office	
General Services	
Mortuary	
Helpdesk	
Staff Changing	
Green Transport Management	
Meeting Rooms	
Car Parking	
Pest Control	
Sanitary Bins	

3.0 Process for the In-House Bid Team

3.1 It is anticipated that NHS Greater Glasgow & Clyde will issue ITPD (Invitation to Participate in Dialogue) documents to the Bidders around January 2008. Bids will be received from the Bidders around June 2008. (Interim Stage)

3.2 It is the intention to treat the In-House Bid Team comparably with the Bidders during the Bid Period. However, in order to develop a detailed Soft FM proposal, the In-House Bid Team will require detailed knowledge of each Bidder's facility design and Hard FM proposals. This will require significant interaction with Bidders during the Bid Period which will impose a very significant workload on the In-House Bid Team and we need to ensure it doesn't inadvertently compromise the probity of the procurement process.

3.3 To maintain equity of treatment, on the same date the Bidders submit their Bids, the In-House Bid Team will be required to submit its Generic Bid. This will be a proposal for the delivery of the Soft FM Services and will be priced on the basis of the Public Sector Comparator exemplar indicative Schedule of Accommodation and indicative Room Data Sheets which will be made available to the In-House Bid Team.

3.4 Upon receipt of the Bids from the Bidders (interim bid stage), NHS Greater Glasgow & Clyde will distribute to the In-House Bid Team the design, build and maintenance proposals contained within the Bid 2's. This information will be provided to the In-House Bid Team shortly after receipt from Bidders. For the avoidance of doubt, the distributed information will not contain price information or information on Bidders' proposals for providing Soft FM Services. This will enable the in-house team to submit specific bids. The Specific Bids shall contain tailored Soft FM Services proposals specific to each Bid 2 received from the Bidders. These submissions will identify any changes from the Generic Bid.

3.5 The evaluation of the Bids (received from the Bidders) and Specific Bids (received from the In-House Bid Team) will be carried out as detailed in the ITPD documents. The In-House Team's Specific Bids will not be evaluated on a stand alone basis but rather as an overall proposal once each Specific Bid has been consolidated with the corresponding Bid 2's (which excludes Soft FM Services).

3.6 The evaluation process will identify the option which offers NHS Greater Glasgow & Clyde the most economically advantageous proposal and will in turn identify whether the Soft FM Services will be delivered by the In-House Bid Team or the private sector partner.

4.0 Potential Outcomes

4.1 If the In-House Bid combined with any of the Bidders' Bid 2's demonstrates better value for money than any of the Bidder's Bid 1's then NHS Greater Glasgow & Clyde will exclude Soft FM Services from the services awarded to the Preferred Bidder. Under this scenario the Soft FM Services will be provided by NHS Greater Glasgow & Clyde. The staff requirements and method for carrying out the Soft FM Services will be as per the In-House Bid Team's Specific Bid (for the respective Preferred Bidder) after negotiation and agreement with the Preferred Bidder and NHS Greater Glasgow & Clyde.

4.2 If the In-House Bid combined with any of the Bidders' Bid 2's does not demonstrate better value for money than any of the Bidders' Bid 1's, then the Soft FM Services will be provided by the Preferred Bidder. Under this scenario, NHS staff employed in the delivery of the Soft FM Services associated with that project will transfer their employment to the Preferred Bidder. In this situation, the transfer of their employment and pension rights will be governed by TUPE and the Protocol, which means that their terms and conditions of employment will transfer to their new employer.

4.3 NHS Greater Glasgow & Clyde will reach agreement with the Preferred Bidder to ensure that employees pension rights are dealt with fairly. NHS Greater Glasgow & Clyde will consult with staff during the bidding process.

Facilities Management Services

Proposal to support in-house Facilities Management bid submission.

Determine

I. Key tasks to be carried out and indicative timescale

II. Lead and support the work

I. Set out in appendix 1

II. - 1 wte Project Manager to lead the in-house team, plus 1.5wte admin support (backfilled where appropriate)

- 1 wte staff representative (backfilled)
- 1 wte Estates Maintenance manager
- 1 wte Domestic Manager
- 1 wte Portering Manager
- In-house HR and financial support – secured for pieces of work to be undertaken or substantially seconded to support whole process.
- Allocate office/accommodation support. (Separate from project office/operational offices).
- Provide in-house team with professional support and advice particularly in the areas of:

a. Specialist FM advice - (brought in when required)

b. Financial advice - In-house

c. Project Management - In-house

d. Legal Advice - CLO

Attached at appendix 2 is a paper that describes this support in further detail.

Acute Services Healthcare Strategy

NHS Greater Glasgow & Clyde Facilities

Task	Actions	Timescale	Lead	Team Support
Development of soft FM specifications	▪ Output specifications ▪ Interface specifications ▪ Service specifications	▪ November 2007 TBC	Project Manager	▪ In-house team ▪ Advisers
In-house bids for soft FM services	▪ Generic bid x 1 ▪ Specific bid x (No of bids)	▪ June 2008 TBC ▪ August 2008 TBC	Project Manager	▪ In-house team ▪ Advisers
Evaluation of bids	▪ Review and evaluation of FM aspects of ITPD submissions (interim & final)	▪ September 2008 TBC	Director of Facilities GM of Facilities	▪ Staff side input (not involved in the in-house bid)

NHS Greater Glasgow & Clyde
Children's Hospital & Acute Hospital PFI Project

FM advice for in-house teams

1 Introduction

The purpose of this paper is to advise the Board in relation to providing support through the appointment of external/internal adviser(s) to assist NHS Greater Glasgow & Clyde's in-house FM team(s) through the procurement process for the new Children's Hospital and Acute Hospital Projects.

This paper also sets out a proposed brief and scope of services for the advisers.

2 Background

The STUC protocol clarifies that PPP/PFI projects can include an element of public delivery of Soft FM services, subject to meeting certain criteria and requirements of the procurement process. The Board have decided to test VFM in Soft FM provision by permitting an in-house team to compete with the private sector providers as part of the procurement process for each project.

As described in this paper, the Board's in-house team(s) will prepare their submissions in 2 stages:

1. Stage 1 – At the same time as the external bidders are preparing their bids, the in-house teams will be required to prepare a preliminary generic cost and service proposal for the delivery of the Soft FM services. This proposal will be based on data available as part of the Public Sector Comparator; and

2. Stage 2 – The in-house teams will be sent a copy of each of the external bids which exclude Soft FM. The in-house teams will then develop the generic bid produced in Stage 1 above into specific bids to suit the external bids received, subject to the Board's decision on the agreed approach.

The "Guidance Note on Public Sector Involvement in PPP Facilities Management (FM) Delivery", issued by the Scottish Executive in October 2003, indicates that:

"The in-house provider must be in a position to construct and provide a comparative submission to bidders at PITPD stage. To do this they must be in an informed position of the commercial aspects of PPP, in particular, they may require detailed briefings on the principles of the output specification and payment mechanism."

Section B.2 of "Guidance Note on Public Sector Involvement in PPP Facilities Management (FM) Delivery"

In line with the guidance note, in-house teams will have to produce a compliant bid and address all issues raised within the ITPD documentation. They will have to ensure their own bid(s) offers value for money, addresses and mitigates risks, is commercially sound, financially accountable and identifies all service delivery issues.

To do this it is envisaged that the in-house team(s) will require access to external/internal advice in order to ensure a fully compliant bid is produced that can be evaluated against the private sector on a like-for like basis. The Board's current advisers are prohibited from providing this advice, as they will be involved in the evaluation of in-house bid against each bidder and also in evaluating the bids received from each of the bidders. Therefore advisers will need to be engaged to provide the necessary advice to the in-house teams.

It is likely that the advice required will comprise:

- Facilities Management - when required
- Financial advice - internal
- Legal advice - CLO
- Project Management - internal

3 Duties of the in-house teams' external/internal adviser(s)

In order for the in-house teams to compete with bidders on a level-playing field, they will have to understand key PPP/PFI procurement principles and processes, such as:

- Risk transfer;
- Value for money;
- Output specifications, including performance parameters and key performance indicators;
- Principles of payment mechanism;
- Interaction with Hard FM services (e.g. estates, utilities)
- Purpose of the helpdesk and the reporting of faults;
- Structure of in-house bids to comply with ITPD evaluation criteria;
- Correct completion of financial pro-formas;
- Project management, training, quality management and health and safety procedures;
- Evaluation process and selection of Preferred Bidder.

3.1 Suggested scope of service

It is currently envisaged that the provision of this technical advice will commence from the issue of the ITPD documents up to the selection of the Preferred Bidder. Further input may be required on an ad-hoc basis.

A proposed scope of service and suggested task list is provided below:
a) Preparation of generic bid submissions for the provision of Soft FM services based on the Public Sector Comparator design, including:

- Appropriate format and structure for the submission, in response to the Board's requirements;
- Assessment of requirements from the output specifications and assessment of impact of the payment mechanism;
- Outline proposed management structure, staff training provision and compliance with policies (H&S, environment, quality etc);
- Method statements for each Soft FM service to be provided;
- Service delivery proposals including how they will manage the interface with Project Co (in particular interaction with their estates team);
- Staffing capability, resourcing levels, pension provision;
- Costs for providing each Soft FM service, including completion of pro-formas;
- Proposals for ensuring appropriate quality of service delivery;
- Innovation and value for money; and
- Risk and contingency planning.

b) Interrogation of the external bids (excluding Soft FM services) and clarifying elements of these bids with external bidders as necessary;

c) Development of the generic submissions into specific Soft FM submissions which interface with the external bids received; and

d) Assistance in dealing with clarifications received from the Board's evaluation teams relating to any of their in-house bids.

4 Terms and Conditions

The Board will have to consider how it wishes to procure the external advisers and the terms and conditions of such an appointment, for example:

- Conditions of Engagement;
- Whether the appointment is to be on a lump sum or time-charge bases

It is suggested that advice is provided from the Board's legal advisers in relation to the Conditions of Engagement.

5 Next Steps

The Board should consider how they wish to advertise, tender, evaluate and select external advisers.

It is recommended that the Board's auditors are consulted in agreeing the approach to procuring the services of the external advisers.

The Board should consider the implications of engaging established advisory firms who may be likely to team up with a private sector consortium to bid for the project, since this advisory role would prohibit them from doing so.

Programme
Policy
Project
Delivery

The Scottish Government

CENTRE OF EXPERTISE FOR
Programme, Policy and Project Delivery

gateway review programme

SENIOR RESPONSIBLE OWNER: Helen Byrne

PROJECT: New South Glasgow Hospital Project

Gateway Review 1
(Business Justification)

Report Status:	Final
Date/s of Review:	08/01/08 to 10/01/08
Date Report Issued to SRO:	10/01/08
Date Copied to Centre of Expertise:	17/01/08
Overall Report Status:	Amber
Review Team Leader:	William Harrod
Review Team Members:	Tom Steele
	Jim Leiper
	Bert Niven

Contents

1. Background

1.1 Aims of the Project

The New South Glasgow Hospitals project is one of the largest NHS projects currently underway in the UK. It involves the co-location and reconfiguration of Acute Services onto the Southern General Hospital site. The project is one of the key vehicles for the delivery of the Greater Glasgow and Clyde Acute Services Strategy. The project sets out to deliver the following benefits:

- Provision of a New Adult & Children's Hospital complex which will be state of the art in all aspects of its design, construction and operation and puts in place the renewal of another part of Glasgow's acute healthcare facilities;
- Meets a major element of service provision through implementing the next stage of ASR;
- Provides radically redesigned clinical services to meet the needs of the local and wider Scottish population;
- Public, staff and other agencies involved in developing design;
- Achieves greater clinical adjacencies and co-locations within and between Adult Acute & Children's Acute Services;
- Provides greater value for money than compared to the present service configuration;
- Will improve recruitment of all types of staff;
- Puts patients at the heart of service planning;
- Will operate in conjunction with new hospitals at Stobhill and Victoria.

1.2 Driving Force for the Project

NHS Greater Glasgow approved the Acute Services Strategy (ASS) to modernise services across the city in 2002. Ministerial approval was received in August 2002. The strategy is underpinned by extensive consultation with local communities and planning partners, locally and nationally, and identifies the future reconfiguration of services in Greater Glasgow -requiring investment capital of some £900 million overall.

The strategy is based on retaining three adult in-patient hospitals at Southern General Hospital, Glasgow Royal Infirmary and Gartnavel General Hospital, supported by two new hospitals at Stobhill Hospital and the Victoria Infirmary.

1.3 Procurement Status

The Outline Business Case (OBC) is currently being finalised – a paper which will reference the OBC is due to be submitted to the January 22 2008 GGC Health Board Meeting.

due to be submitted to the January 15th 2008 GGC Health Board meeting. Options appraisal work has been completed. Work is underway on funding considerations, which may lead to some limited re-scoping of the project.

1.4 Current Position Regarding Gateway Reviews

This is the first Gateway review of the project.

2. Purpose and Conduct of Review

2.1 Purpose of the Review

Gateway Review 1: Business Justification. This Review confirms the business case is robust, that is, in principle it meets the business need, is affordable, achievable, with appropriate options explored and likely to achieve value for money.

A full definition of the purpose of a Gateway Review 1 is attached for information at Appendix A.

2.2 Conduct of the Review

The Gateway Review 1 was carried out on 08/01/08 to 10/01/08 at the project offices in Glasgow. The Review Team members are listed on Page 2 of this report.

The people interviewed are listed in Appendix B.

The Review Team would like to thank the SRO, the New South Glasgow Hospitals Project Team and all interviewees for their support and openness, which contributed to the Review Team's understanding of the project and the outcome of this review.

3. Gateway Review Conclusion

The Review Team finds that the New South Glasgow Hospital project is in the final stages of preparing the Outline Business Case (OBC). The project represents a very significant challenge in terms of scale of investment, business change and complexity. The project team is well established and has already demonstrated an ability to draw upon internal skills and experience as well as lessons from clinical practices across Scotland, Ireland and England. The review team have been impressed with the amount of work already completed on site, which will make this complex project more achievable. However, at the time of the review, uncertainty around the procurement route was hampering the project team's ability to prepare for the next phase. Once the procurement route is agreed with Scottish Government, the project must ensure it takes adequate time to put the necessary elements in place for the delivery phase – particularly with regard to the external technical advisor team. As the project moves past OBC stage, the project team will need to adopt an increasingly rigorous approach to project management and we have made recommendations below.

The overall Report Status is Amber.

4. Summary of Recommendations

The Review Team finds that the following recommendations are:-

4.1 Critical for immediate action - **RED**, i.e. to achieve success the project should take action immediately to address the following recommendations:

None

4.2 Critical before next review – **AMBER**, i.e. the project should go forward with actions on the following recommendations to be carried out before the next Gateway Review of the project:

The project team should ensure that the consequences of delays to decisions are made clear in all communications with the Scottish Government and other decision makers. (Recommendation 1)

The project team should take appropriate time to consider the full implications of a decision to adopt a traditional (design and build) procurement route. (Recommendation 2)

The project team should ensure that communications with staff side representatives are fully understood. (Recommendation 4 – Amber)

The project should produce a consolidated risk management register, with regular review and reporting. (Recommendation 5 – Amber)

The project team should review their draft plans for project governance and management of the next phase. (Recommendation 6 – Amber)

4.3 Potential Improvements – **GREEN,** i.e. the project is on target to succeed but may benefit from uptake of the following recommendations:

The project team should expand the benefits realisation plan to reflect the commitment to change demonstrated by interviewees. (Recommendation 3)

5. Findings

5.1 Policy and Business Context

This project is a significant part of NHS Greater Glasgow and Clyde 's response to the acute services review (ASR), which gained approval from the then Health Minister, Malcolm Chisholm, in 2002 following a significant period of consultation. Since then the structure of the project has been developed under the Acute Services Review Programme Board (ASRPB). As the project has progressed, it has developed significant support from the public, clinicians and the Scottish Government. In order to meet the demands of a range of initiatives, including Modernising Medical Careers, the working time directive, and required financial efficiencies, NHS Greater Glasgow and Clyde (NHS GG&C) does not have a 'do nothing' option and even with the

current project timetable, transitional plans are being developed to cover the expected gaps between closing existing facilities and opening the new hospitals.

The project represents a considerable delivery challenge given its scale and complexity, although NHS GG&C has considerable internal experience of major project delivery. The project has set out to benchmark its performance – both clinical and project management – against other projects and hospitals across Scotland, Ireland and England. In terms of clinical performance, the targets are described 'top quartile' and the review team were impressed by the consistently positive message on the level of clinical engagement and commitment to new ways of working.

The project has maintained close communications with the Scottish Government and this will need to continue as the timing of political decisions has the potential to impact the project timetable and budget.

Recommendations:

> **The project team should ensure that the consequences of delays to decisions are made clear in all communications with the Scottish Government and other decision makers. (Recommendation 1 – Amber)**

5.2 Business Case and Stakeholders

At the time of the review, the Outline Business Case (OBC) was in the final stages of preparation. The project team had set out a clear process to complete the OBC, gain NHS GG&C Board approval and submit to the Scottish Government Capital Investment Group (SGCIG), where approval is expected by April 2008. One major challenge to the project is the impact of the chosen procurement route. Early drafts of the OBC were predicated on a PFI procurement route, however, because of issues about affordability and a change of emphasis on alternative procurement options by the new government, a wider selection of procurement possibilities has been considered. The OBC will set out the implications of three different procurement routes for the project: PFI, PFI (non-profit distribution model) and traditional (design and build). The project team are confident that the financial implications of these options are manageable. However, the additional complexity, impact on timetable, and form of contracts are less clear although the project team will be seeking advice from the Board's legal, financial and technical advisors.

It is likely that such a large project will be attractive to the market, and early resolution of the procurement model will help maintain interest.

The draft OBC includes a section on benefits realisation, which sets out high level benefits for both the Children's and Adult hospitals with appropriate measures and allocated responsibilities. Further work in developing the benefits realisation plan will reflect the positive messages given to the review team by interviewees.

The project team has expended considerable effort in engaging with and developing support from the clinicians affected by the project. The project's approach has been

to create specialist sub-groups to develop the detailed thinking needed to take the project forward. The review team were impressed by the commitment of the clinical teams in developing new ways of working, and plans to implement transitional arrangements so that the new ways of working can be employed in existing accommodation before making the transition to the new facilities. This approach will bring significant assurance that the efficiency goals will be achieved.

The project team has an open and inclusive approach to staff side communication, with two seats on the Project Executive Group allocated to union representatives. The review team acknowledge that while the project has worked hard to make information available more work may be needed to ensure that the representatives have a full understanding of the detail and implications of that information, for example, in relation to the bed model and workforce planning. It is encouraging to see that the HR sub-group has already been established to help manage change.

The project benefits from a significant community engagement team which is part of the wider ASR Programme. This team has been in place since the start of the programme and has developed a detailed understanding of the local stakeholder environment. The community engagement team continues to run both general public PR activities – such as meeting the public in busy 'supermarket' areas – and specific progress activities – such as an event for the families of sick children to inform them of progress with the new children's hospital.

The review team has noted that the Community Health and Care Partnerships (CHCPs) are engaged at a number of levels of the project structure. Clear communication and ongoing engagement is key to developing an integrated strategy for service redesign.

Recommendations:

The project team should take appropriate time to consider the full implications of a decision to adopt a traditional (design and build) procurement route. (Recommendation 2 – Amber)

The project team should expand the benefits realisation plan to reflect the commitment to change demonstrated by interviewees. (Recommendation 3 – Green)

The project team should ensure that communications with staff side representatives are fully understood. (Recommendation 4 – Amber)

5.3 Risk Management

The project is maintaining discrete risk registers for separate areas of the project, although these registers were not consolidated to allow a comprehensive and consistent assessment of risk. Although the project had created a document which identifies the owners of a small number of issues, an issues log was not considered necessary at this stage of the project. The review team also heard different views on risk ownership, with some interviewees stating that collective ownership was appropriate and others stating that key risks should have named individual owners.

In a project of this scale and complexity, it is inevitable that a large amount of detailed information will be retained by key individuals. The project should continue to develop the online information resource to mitigate the risk of loss of key personnel. Whilst the timetable for the project has been produced by advisers and independently verified, the review team believe that it remains extremely challenging. The review team suggest that the project team should consider the timetables actually achieved by other complex public sector procurements as a further assurance measure.

Recommendations:

The project should produce a consolidated risk management register, with regular review and reporting. (Recommendation 5 – Amber)

5.4 Readiness for Next Phase

Preparation for the next phase of the project (delivery strategy) is being planned for, although detailed plans are being hampered by the uncertainty around the procurement route. Until this is clear, the project will be limited in how far it can develop plans, with an obvious potential impact on the timetable and cost. The project recognises that the requirements for external specialist advice will be different dependent upon the procurement route, and although a team appropriate to a PFI procurement have been pre-qualified, a new competition will be needed to appoint a non-PFI team.

The review team were encouraged to hear the level of detailed discussion with the utilities providers, although in the review team's experience, more formal agreements need to be in place as soon as possible.

The project recognises the need to increase resources and implement greater rigour in terms of project management and control. The review team were shown a draft document which describes the governance arrangements to take the project up to Final Business Case (FBC). The review team believe that as the project progresses past OBC, the scale and complexity of the project will demand a significant change to the current project structure. The review team believe it would be valuable for the project managers to visit other projects (possibly outside the Health environment) which are already working in later project phases, to identify useful project management practices which may be implemented in this project.

The review team suggest that the project considers the following:

- A programme structure to cover all projects on the Southern General site;
- Inclusion of a colleague with commercial experience on the Southern General Programme Board;
- Individual project teams with discrete project boards;
- Consistent project reporting process
- Appointment of a deputy project director.

Recommendations:

The project team should review their draft plans for project governance and management of the next phase. (Recommendation 6 – Amber)

6. Previous Gateway Review Recommendations

Not appropriate.

7. Next Gateway Review

The next Gateway Review 2 is expected in May 2008.

8. Distribution of the Gateway Review Report

This Gateway Report was produced for the SRO.

The contents of this report are confidential to the SRO and their representative/s. It is for the SRO to consider when and to whom they wish to make the report (or part thereof) available, and whether they would wish to be consulted before recipients of the report share its contents (or part thereof) with others.

The Review Team Members will not retain copies of the report nor discuss its content or conclusions with others.

A copy of the report is lodged with the Scottish Government's Centre of Expertise (CoE) for Programme, Policy and Project Delivery so that it can identify and share the generic lessons learned from Gateway Reviews.

The CoE will provide a copy of the report to Review Team Members involved in any subsequent review as part of the preparatory documentation needed for Planning Meetings.

Any other request for copies of the Gateway Report will be directed to the SRO.

APPENDIX A

PURPOSES OF A GATEWAY REVIEW 2: DELIVERY STRATEGY

- Confirm the Outline Business Case now the project is fully defined
- Confirm that the objectives and desired outputs of the project are still aligned with the programme to which it contributes
- Ensure that the delivery strategy is robust and appropriate
- Ensure that the project's plan through to completion is appropriately detailed and realistic, including any contract management strategy
- Ensure that the project controls and organisation are defined, financial controls are in place and the resources are available
- Confirm funding availability for the whole project
- Confirm that the development and delivery approach and mechanisms are still appropriate and manageable
- If appropriate, check that the supplier market capability and track record are fully understood (or existing supplier's capability and performance), and that there will be an adequate competitive response from the market to the requirement
- Confirm that the project will facilitate good client/supplier relationships in accordance with government initiatives such as Achieving Excellence in Construction
- For a procurement project, confirm that there is an appropriate procurement plan in place that will ensure compliance with legal requirements and all applicable EU rules, while meeting the project's objectives and keeping procurement timescales to a minimum
- Confirm that appropriate project performance measures and tools are being used
- Confirm that there are plans for risk management, issue management (business and technical) and that these plans will be shared with suppliers and/or delivery partners
- Confirm that quality procedures have been applied consistently since the previous Review
- For IT-enabled projects, confirm compliance with IT and information security requirements, and IT standards
- For construction projects, confirm compliance with health and safety and sustainability requirements
- Confirm that internal organisational resources and capabilities will be available as required for future phases of the project
- Confirm that the stakeholders support the project and are committed to its success
- Evaluation of actions taken to implement recommendations made in any earlier assessment of deliverability.

APPENDIX B

List of Interviewees:

Name	Organisation/Role
Helen Byrne	SRO
Dr. Brian Cowan	Medical Director
Jane Grant	Dir Medical Services
Alan Seabourne	Project Director
Ken Fraser	Davis Langdon
Jane Peutrell	Paediatric Anaethetist
Rosslyn Crokett	Dir Women & Children
Niall McGrogan	Community Engagement
Iain Wallace	Associate Med Dir
Robert Calderwood	Chief Operating Officer
Peter Moir	Capital Planning Manager
Peter Gallagher	Finance
Tony Cocozza	Finance
Heather Griffin	Project Manager – Adult
Alastair Ireland	A&E Consultant
Mandy Robertson	Staff Side
Sandra Davidson	Staff Side
Mairi Macleod	Project Manager - Children

9.2 AFFORDABILITY APPRAISAL

As a preliminary to appraising the affordability of the project there is a need to consider what shape of construct would be represented by the Outline Business Case (OBC) in terms of what would go to the market. On this basis, the key assumption is that the refurbishment schemes and enabling costs on the existing SGH site would be funded by the Boards General Capital Resource Allocation. This leaves the new build elements to shape the contract of a procurement solution:-

9.2.1 Capital Costs for Option 1a

	Base Case	**100% single Rooms**
	£m	£m
OBC Procurement Option	813.1	841.7
Refurbishment on SGH site	16.8	16.8
Total Capital Expenditure	829.9	858.5

Revenue costs in the form of capital charges driven from the £16.8m refurbishment (approximately £1.1m) are covered within the Boards Financial Plan and so remain out-with the scope of this review of affordability of the 3 procurement options.

The affordability analysis therefore considers the relative costs of CPAM, PFI and NPD procurement models of option 1a) for both base case and 100% single rooms

9.2.2. Revenue costs

Table 12: Showing revenue consequences of the 3 procurement models for option 1a

	Treasury CPAM £'000	**PFI £'000**	**NPD £'000**
Capital Charges - Buildings	39,100	nil	nil
Unitary Charge – Buildings	nil	66,676	66,571
Capital Charges - Equipment	7,690	7,690	7,690
Life Cycle Costs incl. in Unitary Charge	4,600	Incl.	Incl.
Lease cost for laboratory Lease	1,000	1,000	1,000
Total Gross Additional Expenditure for Base Case	**52,390**	**75,366**	**75,261**

Additional Revenue costs for 100% single rooms	1,476	2,142	2,134
Total Gross Additional Expenditure with 100% single rooms	**53,866**	**77,508**	**77,395**

The above table demonstrates a gross annual cost of £52.3m for the CPAM procurement route (£53.8m for the 100% single rooms) against a spread of £75.2m to £77.5m for the various PFI/NPD options.

With regard to Bond financing the vfm section elaborates on potential difficulties in delivering this. If this proved to be deliverable, it would generate a cost of circa £76m which is still £22m more expensive annually than the CPAM model.

The key thrust here is which procurement route is deliverable in terms of affordability. The overarching financial objective is to self fund the additional costs associated with the New Adult and Children's Hospitals from cost efficiencies generated within the Acute Division from the reduction of various sites into the SGH. Savings identified to date and actions still required are shown below.

	£'000
Capital Charge and Maintenance Savings - Buildings	(22,800)
Operational Efficiencies Identified	(22,100)
Sub total	**(44,900)**
Initiatives to be identified	(8,900)
Total Savings	**(53,800)**

Based on the above, additional cost savings of £8.9m are required to achieve self funding. In revenue terms against an annual Acute Budget of £1.5billion this equates to approximately 0.6% and is considered attainable. An additional £24m over and above this, which represents the further level of cost savings challenge associated with making a PFI procurement approach affordable, is not considered attainable in the light of the Board's existing costs savings programmes and so would require to be funded either by the allocation of additional funds by the Board or through costs savings achieved through a reduction in service delivered.

In a period where it is unrealistic to expect the allocation of further revenue funding on this scale, this would effectively require a reduction in service which would be capable of releasing £24m per annum.

NHS Greater Glasgow & Clyde (NHSGG&C) has an established record of sound financial management and has consistently achieved its targets. The Board's financial plan forecasts that total expenditure will be contained within its overall funding envelope thereby enabling it to secure achievement of its revenue financial target by managing within its "revenue resource limit" (RRL).

The financial plan incorporates provisions for the latest forecast of additional funding required to support implementation of the Acute Services Review (e.g. Beatson Cancer Centre, and Stobhill and Victoria new hospitals).

The baseline assumption is that the new South Glasgow and new Children's Hospitals and new Laboratory facility are revenue neutral."

Given the above, the CPAM procurement route is considered the only deliverable option.

9.3 AFFORDABILITY OF PROPOSAL FOR NEW ADULT AND CHILDREN'S HOSPITALS IN CONTEXT OF NHSGG&C 10 YEAR FINANCIAL PLAN

9.3.1. Revenue Consequences

A top level 10 year financial plan is set out in the table below with a more detailed summary provided in Section 9.4. This projects the Board's anticipated sources of additional revenue funds and likely expenditure commitments over the forthcoming 10 year period, including the additional cost commitment associated with developing new Adult and Children's Hospitals on the Southern General site.

Table 13: Top Level Financial Plan : 2008/09 – 2017/18

	08/09 £'M	09/10 £'M	10/11 £'M	11/12 £'M	12/13 £'M	13/14 £'M	14/15 £'M	15/16 £'M	16/17 £'M	17/18 £'M
Forecast additional funding	74.7	77.6	79.4	73.4	75.3	77.3	79.4	81.6	83.7	86.1
Forecast expenditure commitments										
Unavoidable expenditure growth / existing commitments	92.3	105.2	80.4	78.0	74.3	76.7	79.5	83.9	86.5	88.8
New adult/children's hospitals	-	-	-	-	-	13.0	46.5	-	-	-
General provision for new expenditure commitments	-	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Total expenditure commitments	92.3	113.2	88.4	86.0	82.3	97.7	134	91.9	94.5	96.8

OPERATIONAL POLICY MEETING:14th August 2008

HAEMATO-ONCOLOGY - NEW SOUTH GLASGOW HOSPITAL

Present

Myra Campbell	Service Manager Haemato-Oncology
Heather Griffin	Project Team
Frances Wrath	Project Team

Outcome

Reviewed Schedule of Accommodation:

- Confirmed 14 Inpatient Beds and 4 Day Beds (schedule being revised to reflect this).
- Confirmed that three there are 3 Treatment Rooms located on the ward. One provided for intrathecal chemotherapy (government requirement). Note the Pentamidine treatment room needs to be negatively pressurised.
- A Significant number of the rooms will require positive pressure. Myra to ask John Hood for further details.
- Currently 8 Gowning Lobbies – are these all needed? MC to make enquiries.

Outpatient And Daycase Activity

Currently reviewing services, plan for efficiencies in outpatients therefore reducing activity (especially in returns). May also amalgamate some clinics into the ACH.

The anticoagulant clinic is currently held in the laboratory. Currently have 0.8 WTE of a Band 6 Nurse who is retiring soon, salary will move across to ACH. Separate anticoagulant nurses will come across to SGH to undertake the anticoagulant clinics.

Projections for outpatient activity in 2014 is taking place centrally through the Planning Department, however as numerous movements are planned between the Victoria and SGH sites will need advice and input from MC in developing projections. **Action** - HG to follow up .

Day Area Within The Ward

MC perceives this as an open plan area located at the front of the ward to reduce day traffic into the inpatient areas. Day area should have natural light (*NB natural light and good patient views is one of the key criteria for the ward design).*

Points From Last Minutes

- Location of Haemato-oncology should be within easy travel time of Critical Care. As before, position given in the draft ward stacking diagram thought to be acceptable.

- MC to feedback re aspirations around food preparation.

- Aphoresis was previously mentioned as a possibility (thought not to require additional space). MC to investigate whether nor not Aphoresis is planned for New South.

Operational Policy

Format discussed, similar to ACH. Sections of the Operational Policy developed by MC for Beatson Oncology Centre can be used.

Require patient floors for Inpatients, Daycases and Outpatients.

Action – MC to draft Operational Policy and return to HG prior to the commencement of the Design Team on 1st September.

New South Glasgow Hospitals Project

Procurement Process Workshop

1st October 2008

Background

- Affordability of OBC
- Investigate Public Finance
- Procurement options and process
- Legal & technical
- Preliminary views
- Workshop

Workshop – Feb 2008

- Facilitated by S+W
- Presentations by 4 companies
- Their brief
- CSF – drivers
- Attendees
- The presentations
- Output

Key Points Arising

- Partnering / Prime contracting
- 2 stage D&B – early selection??
- Early partner involvement
- Design development parallel with packages
- Price open book basis, degrees of cost certainty through process.
- Bid cost risks
- Design high on Board's list
- Lifecycle considerations
- 3-5 year maintenance bolt on

Post Workshop

- Meetings with Senior Board colleagues
- Reviewed against key drivers
- Internal review of options by Project Team
- Partnering v 2 Stage D&B

NEW SOUTH GLASGOW HOSPITALS PROJECT TEAM — **PROCUREMENT ROUTE - SUMMARY EVALUATION FORM**

POST PROCUREMENT WORKSHOP - REVIEW OF OPTIONS — **4th APRIL 2008**

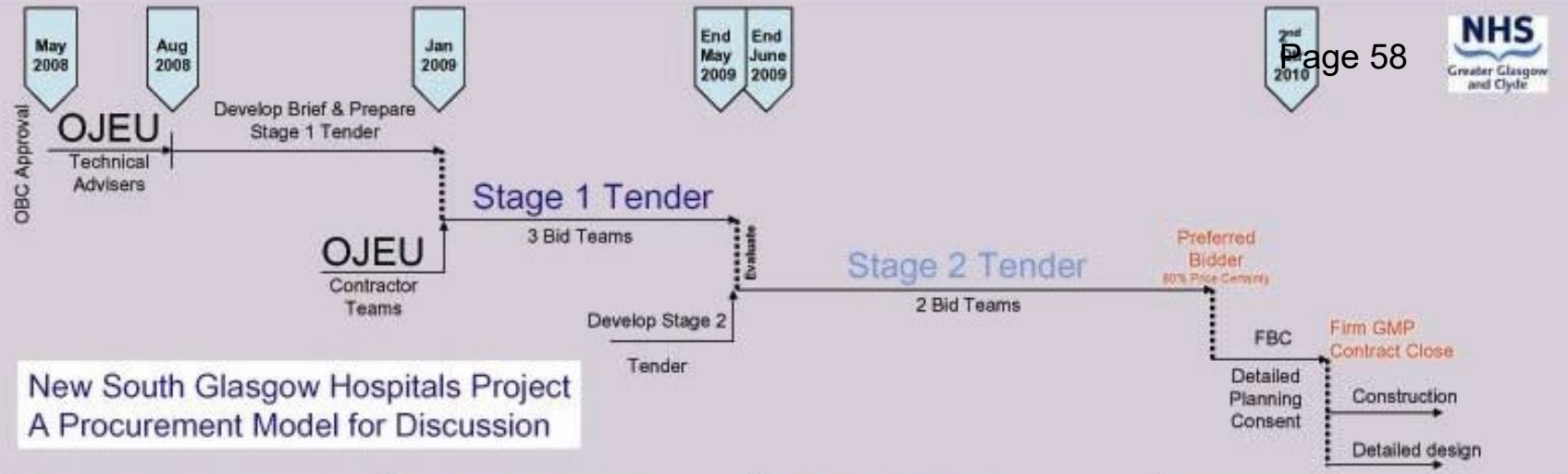
Procurement Route	Agreed Weighting		Traditional		Design & Build Single Stage		Design & Build Two Stage		Management Contracting		Construction Management		Design Build Manage Operate		Alliancing (eg frameworks with national companies)		Prime (eg Procure 21)	
Evaluation Criteria			Score 1-5	Weighted Score	Score 1-5	Weighted Score	Score 1-5	Weighted Score	Score 1-5	Weighted Score	Score 1-5	Weighted Score	Score 1-5	Weighted Score	Score 1-5	Weighted Score	Score 1-5	Weighted Score
Cost	40																	
Ability to meet the Board's and Scottish Governments annual cashflow requirements.	10		1	10	4	40	4	40	2	20	3	30					4	40
Cost certainty as early as possible, at latest pre-contract award.	9		4	36	3	27	3	27	1	9	2	18					3	27
Competitive pricing.	12		4	48	4	48	3	36	2	24	2	24					2	24
Collaborative relationship reduce potential for disputes or claims	9		2	18	3	27	3	27	3	27	4	36					4	36
Programme	20																	
Delivers facilities to meet Board's site start, completion and operational dates. (SOS Nov 2010).	10		1	10	3	30	4	40	2	20	3	30					4	40
Early transfer of programme risk.	3		2	6	3	9	3	9	2	6	2	6					3	9
Incentivise contractor to achieve early completion.	3		2	6	4	12	4	12	3	9	2	6	See Note 1		See Note 1		4	12
Achieve early programme certainty.	4		2	8	3	12	3	12	2	8	2	8					4	16
Quality	15																	
High degree of control over detailed design and design quality	3		4	12	3	9	3	9	3	9	3	9					3	9
Control of sustainability and whole life issues.	4		4	16	3	12	3	12	2	8	2	8					3	12
Integrated design and construction solution.	6		1	6	3	18	4	24	2	12	3	18					4	24
Ability to deliver against Board's quality benchmarks	2		4	8	3	6	3	6	3	6	3	6					3	6
General Risks	25																	
Flexibility for change post preferred bidder/contract.	3		2	6	3	9	4	12	4	12	4	12					4	12
Shift design and construction risk to contractor early as possible.	1		2	2	3	3	3	3	2	2	2	2					4	4
Collaborative approach to cost risk, continuous review and mitigation.	5		2	10	2	10	4	20	3	15	3	15					4	20
Is procurement route suitable for this value of project.	6		2	12	3	18	4	24	3	18	3	18					2	12
Early involvement of contractor for buildability and programme advice.	2		2	4	3	6	4	8	3	6	3	6					4	8
Procurement route is attractive to market.	6		2	12	2	12	4	24	2	12	2	12					4	24
Design development process to have least disruptive interface with user groups(staff availability).	2		4	8	2	4	3	6	3	6	3	6					4	8
Total Weighting	100																	
Total Score				238		312		351		229		270						343
Ranking				6		3		1		5		4						1

Notes:
Score: 1 - 5 = Poor - Good maximum score 500.

Note 1 - Although discussed at the Procurement Workshop on 19th February 2008, after consideration the the Project Team decided that these options were not viable for this project and would not form part of the review.

Market Sounding

- Ernst & Young
- Marketability / interest
- Views on procurement
- Meet and discuss
- Summary report and recommendation



Board's Tender Documentation	Stage 1 – Tender Response	Stage 2 – Tender Response	FBC, Pre-contract and Mobilisation
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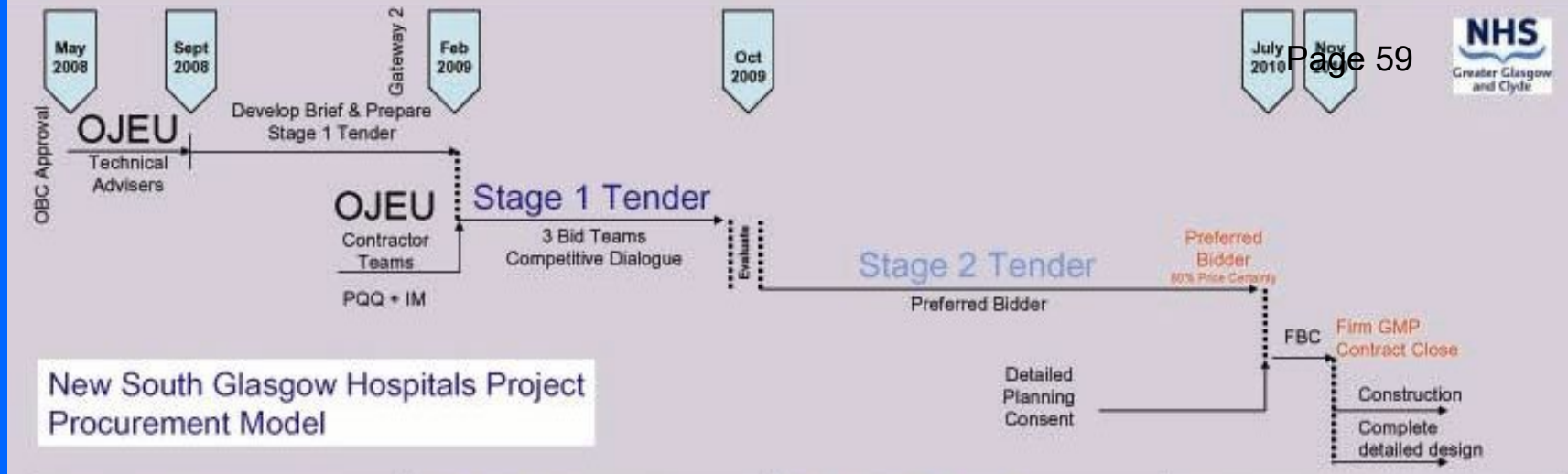
Two Stage D&B Model 3-2-1



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Two Stage D&B Model 3-1

Feedback from Market Testing

- Interest in project confirmed - OJEU may flesh out others
- Prefer 3-1
- High bid cost of full engagement at second stage by 2 teams - £8-10m or more
- Only 1 expressed interest in full competition
- Re-imbursement of bid costs????
- Potential for one to drop out at second stage – no competition
- Stage one – design and pricing competition based on ER's and PSC design
- Two stage D&B seen as a viable route, 3 teams interviewed could work with this structure

Procurement strategy - What next…

- TA now on board
- Workshop to review current thinking
- Develop detail of two stage process
- Stages of design & cost review
- Framework for engagement
- CD or restricted??
- Contract form JCT v NEC or other
- Develop ER's
- Further warming up of market

New South Glasgow Hospitals Project - Procurement Process

NHS Board Seminar - 7th October 2008

Alan Seabourne – Project Director, NHS Greater Glasgow & Clyde

Michael McVeigh – Assistant Director (Infrastructure Advisory) – Ernst and Young

Jim Hackett – Project Director, Currie & Brown

Background

- Submitted OBC to Scottish Government in February 2008
- Selected Public Finance Route
- Procurement Method was still to be determined
- Technical Adviser – Change
- Held initial dialogue with Technical Teams locally on what were the opportunities, constraints and risks in determining the most appropriate procurement model
- Procurement planning carried out in 3 stages:
  - Develop plan
  - Test in the market
  - Finalise Plan

Workshop – February 2008

- Facilitated by Legal Adviser (Shepherd & Wedderburn)

- Considered 8 different models of procurement

- Traditional
- Management Contracting
- Construction Management
- Design and Build
- 2 Stage Design and build
- Design, Build and Operate
- Alliancing
- Prime Contracting

- Measured them against Board's requirement

Preferred two options which were the most suitable:

– Prime Contracting (Partnering)

The Board would initially appoint a partner who would be tasked with procuring a full supply chain of design and subcontractors. This partner would be selected on the basis of ability, experience, resources, management fee, etc.

The Design Team of the supply chain would lead the design up to a certain point and then handover the management of design process to the construction partner. A Guaranteed Maximum Price (GMP) could be arrived at once the design had been fully developed and tendered through open book process.

– 2 Stage Design and Build

The Board would appoint a technical adviser team to develop the exemplar design and tender documentation.

* **Stage 1** – appoint a contractor on the basis of initial costs, overheads, profit margins, design – achieve GMP and Target Price Not to be Exceeded (TPNE)
* **Stage 2** – Contractor further develop design and tender sub-contractors on a open book approach with key progression points to test design and cost

- Followed up the workshop with a Senior Officers Meeting to discuss and further develop workshop conclusions.

- Project Team then completed an appraisal of all 8 options against Board criteria

- Outcome of Appraisal –

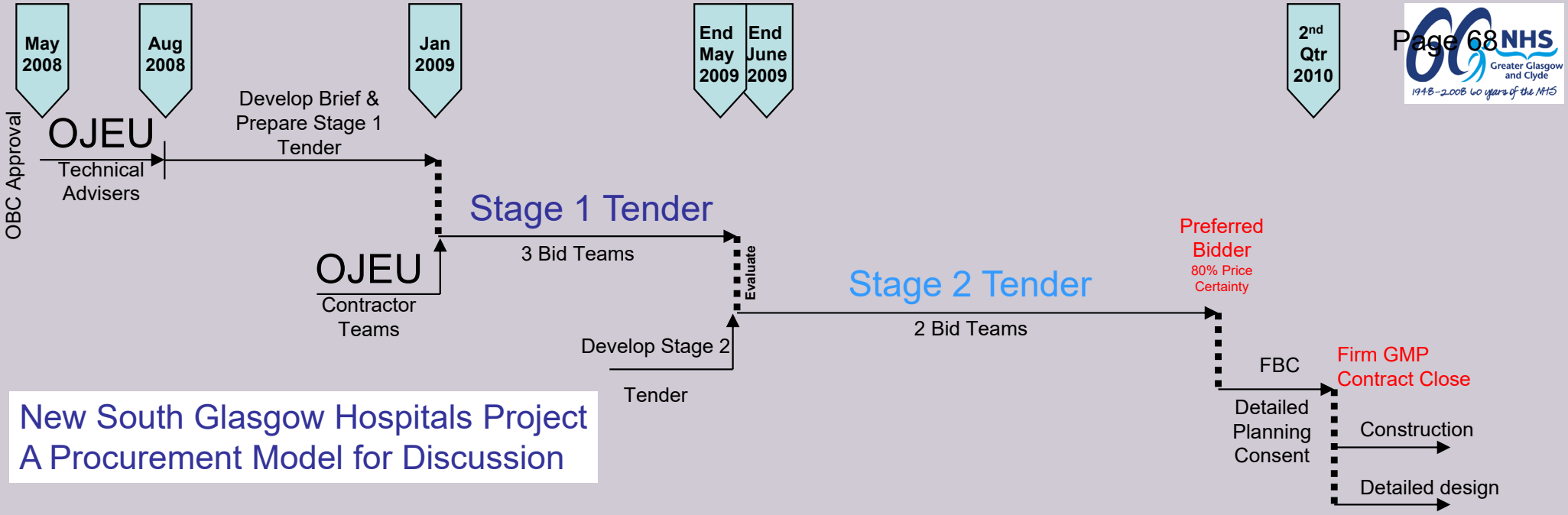
2 Stage Design & Build

Developing Procurement Model

- Project Team developed the 2 Stage Design & Build model

- Presented it to Senior Officers Group and debated the key issues of:-
  - Competition
  - Early Price Certainty
  - Attractiveness to market
  - Meeting Board Timescale

- Project Team completed Procurement Model



New South Glasgow Hospitals Project
A Procurement Model for Discussion

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Board's PSC Design Solution
- Copy of Stage 1 report – amended as required.
- Cost information – amended and updated from OBC.

Design and Tender Evaluation
The process, criteria and scoring

Design Deliverables
Stage 1 (3-2) Stage 2 (2-1) For contract (prior to construction)

General Tender Information
Project execution plan.
Contract conditions.
Project programme and other works inter dependencies.
Suggested forms for bonds, warranties, guarantees and other legals.
Site survey and site investigation reports.
Preliminaries requirements.
Stage 1 Design Report – updated as required.
Cost plan prior to tender.
Copies of statutory approvals secured by Board.
Health & Safety Plan and questionnaire.
Pricing schedules for pre-construction services
Board's FM requirements
Board's lifecycle requirements

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Stage 1 – Tender Response

Content
- Details of contractors team and structure.
- Relevant experience & reference sites.
- Key personnel and management structure.
- Legal framework for team, parent company.
- Company financial and commercial information.
- Response to PSC design, high level proposals.
  1:500 phased site plans for duration of works.
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- Healthcare planning solution.
- Typical specification for building and engineering aspects.
- Approach to building design proposals.
- Commentary on buildability.
- Detailed review and commentary of project cost plan.
- Project risk assessment and management.
- Contractors proposals on quality and lifecycle costs.
- Detailed method statement for delivery of the project.
- Design and procurement timetable.
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- Priced schedules for any advanced works.
- Fixed % for mark-up on provisional sums for trade works.
- Cost plan at Stage 1.
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- Contractor's draft tendering protocol.

Stage 2 – Tender Response

Content
- By end of stage – full clinical sign off;
- Healthcare planning proposal to include;
  Agreed functional content.
  Agreed and audited schedule of accommodation.
  Agreed audit of communication and circulation areas.
  Audit of scheme against infection control req.
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- Design programme.
- Programme to secure detailed planning consent.
- Project management and quality management arrangements.
- Construction programme, methodology phasing etc.

Guaranteed maximum price (not to be exceeded) – 80% certainty.
Contractor's overhead and profit percentages.
Agreement on LADS.
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Details on insurances.
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Draft FBC forms.

FBC, Pre-contract and Mobilisation

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- Secure detailed planning consent, prior to contract close.
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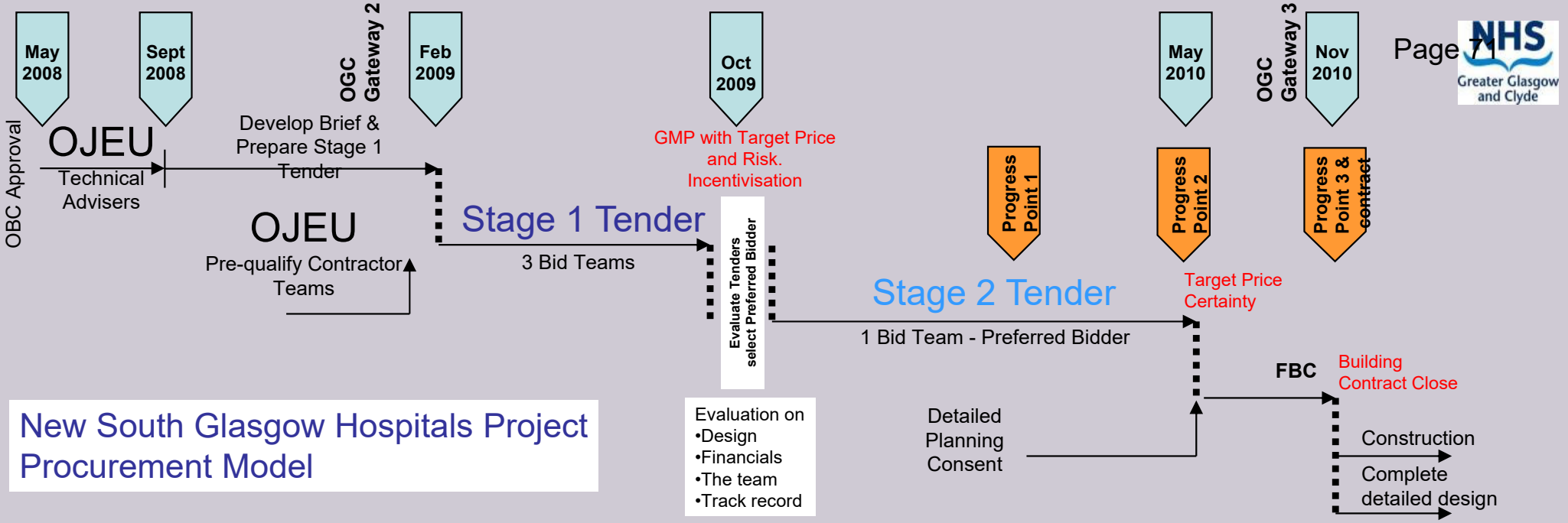
- Continue with design development and sign off within cost envelope.

Testing the Market, Fine Tune & Further Testing

- Market Sounding Exercise led by Board's ASR Financial Advisers (Ernst & Young)
- From Market Sounding Exercise the Project Team adjusted the Procurement Model to obtain the optimum outcome for the Board
- Approved by the New South Glasgow Hospitals Executive Board
- Final Workshop October 2008 with all Advisers & Project Team
  - Currie & Brown – Technical Advisers
  - Partnership UK – Procurement Advisers
  - Ernst & Young – Financial Advisers
  - Shepherd & Wedderburn – Legal Advisers

Outcome from Final Procurement Workshop

- 2 Stage Design & Build Process still most suitable to meet the Board's Requirements
- Identified all critical risks for the delivery of the project
- No show stoppers – all risks currently work in progress to control and mitigate



New South Glasgow Hospitals Project Procurement Model

Evaluation on
•Design
•Financials
•The team
•Track record

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NHS Greater Glasgow & Clyde

Market testing in relation to New Southern General Hospital

ERNST & YOUNG
Quality In Everything We Do

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Details of the market testing

- Aim of the exercise
  - To establish the markets view on how the New Southern General project should be procured, and what their bidding intentions may be.
- Target consultees
  - Larger construction companies capable of delivering project on a stand alone basis
  - 9 companies were approached of which six declined to participate.
    - Project size and lack of strategic fit were stated as reasons for non participation.
- Three firms took part in the exercise
  - Carillion plc, Laing O'Rouke, Balfour Beatty

Findings of the market testing

1. Each of the companies indicated that they were very interested in the project.
2. Each company was considering the resources that may be required for a bid.
3. The use of capital funding was not a disincentive to these bidders and in fact may enhance their view of the project.
4. The main concerns highlighted were:
   - The value of bid costs that may be incurred while in competition were substantial.
   - The degree of design development and duration of the process may limit the attractiveness of the project to the best design teams and therefore adversely impact on project quality.
5. The marketability of the process could be enhanced through:
   - The underwriting of bid costs so that the unselected company at the end of stage 2 would be reimbursed.
   - The rapid selection of a single preferred bidder who would then work through design development and single pricing.
6. Without enhancing the marketability of the project a significant risk was that a bidders may not either respond or enter into consortia arrangements. There actions would significantly reduce the competitive tension available to drive innovation and control pricing.

Key factors and outline approach

- Key factors in the development of the process
  - Delivering sufficient market interest at the outset to achieve value for money through competition.
  - Use of competitive dialogue to move from three bidders to one contractor
  - Contract awarded may be based on NEC3, but will require further examination
- Approach involves two stages
  - Stage 1 – Use of competitive dialogue procurement to select a preferred contractor from a shortlist of 3 bidders
  - Stage 2 – Work with preferred bidder to develop final design and Final Target Price.

Benefits of the approach

- Benefits of the approach
  - Allows for the Board to access market innovation in design.
  - Limits the amount of detailed design work until after the contract is awarded.
  - Sets an early cap on costs that should be reduced as the design process develops under contract.
  - Limits the exposure to abortive costs that may have to be underwritten in alternative processes.
  - Allows for a meaningful assessment of the partnership potential of the bidder.
  - May allow for the early delivery of works post the contract award (site preparation etc).
  - The phased development of the contract process from award to FBC preparation is similar to the Scottish Framework and so familiar to bidders.
  - The duration of the dialogue process may allow for a shortened procurement period.

Risk identified

- Two principle risks have been identified:
  - That setting a Target not to be exceeded price sets an upper limit on costs but may not act as an incentive to the contractor to minimise pricing. It is important therefore to include some competitive price elements in the dialogue process.
  - The contract development process should contain decision points at which the procurement could be terminated. Costs should not be underwritten post contract award.

Next steps

- Identify areas for further design development
- Value of the Target not to exceed price, and its basis of calculation
- Develop specifications of design life expectations
- Consider areas where revenue costs will be considered and which may impact upon design assessment
- Design mechanisms for carrying out an open book assessment
- Set thresholds to be met at each progress point
- Degree of payment and retention of payment at each progress point
- Determine ownership of designs
- Consider implications of the contractor not meeting progress point requirements
- Design an acceptable approach to design development through the contract period.

Thank you

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Quality In Everything We Do

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NHS Greater Glasgow and Clyde

New South Glasgow Hospitals Project

Procurement Programme and Process

7th October 2008



Key Drivers

Currie & Brown

- Cost - Cost Certainty, Cashflow, Competition
- Programme - Programme Certainty, Deliver Operational Dates, Early Completion?
- Quality – Function and Fabric, Sustainability and Whole Life, Compliance
- Risk – Cost, Programme, Quality



Procurement - Programme

Currie & Brown

- Develop Tender Documents March 2009
- Tender Period July 2009
- Preferred Bidder Sept 2009
- Formal Contract/FBC/Const Oct 2010
- Children's Complete (Const) June 2013
- Adult's Complete (Const) Dec 2014



Procurement - Stages

Currie & Brown

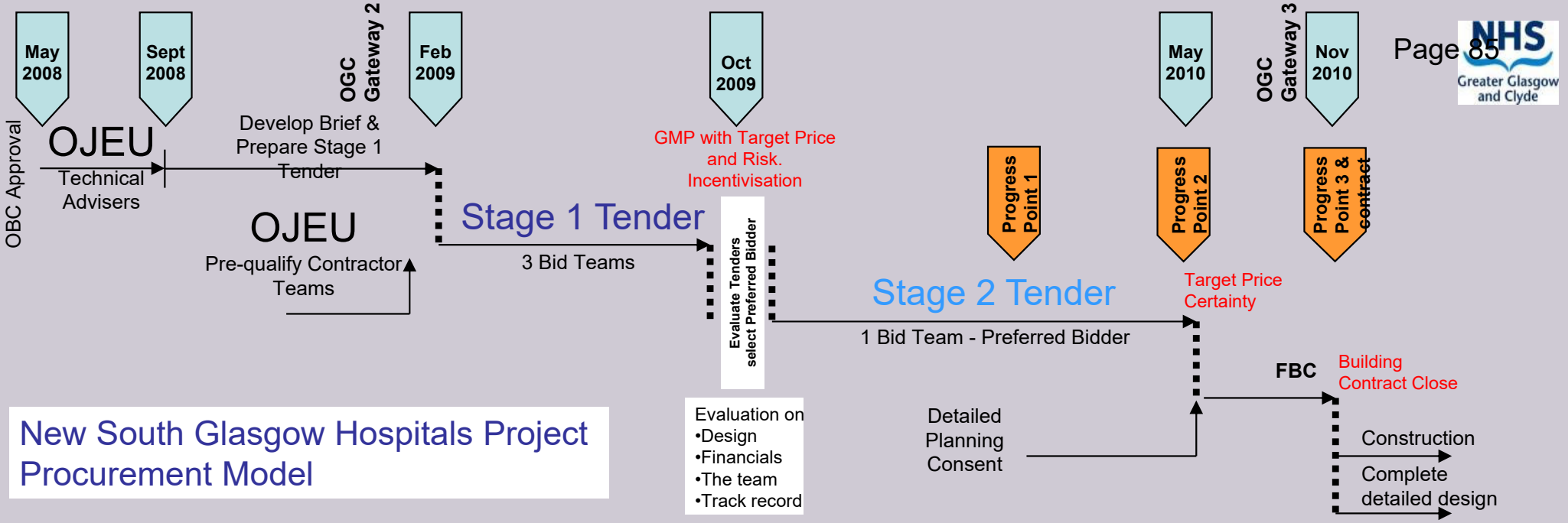
- Two Stage Design & Build
- Employee Requirements/Output spec – Stage 1A
  - 1:500 layouts
  - 5 nr key departments 1:200
  - Key Room ADB's, 1:50s
- First Stage Return – Stage 1B
  - Design Proposals in response to Employers Requirements
  - Target price
  - Priced Risk Register/Allocation
  - Incentivisation Proposals
  - Maximum Price



Procurement - Stages

Currie & Brown

- Second Stage – Stage 2
  - Preferred Bidder Appointment
  - Paid to develop design
  - Negotiate Final Target Price based on Risk Mitigation
- FBC/Formal Contract
- Stage 3 – Construction
- Stage 4 – Operational Commissioning
- Compliance Period – 3, 5, 7 Years
- Stage 5 – Post Project Evaluation



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- Copy of Stage 1 report – amended as required.
- Cost information – amended and updated from OBC.

Design and Tender Evaluation
The process, criteria and scoring

Design Deliverables
Stage 1 (3-2) Stage 2 (2-1) For contract (prior to construction)

General Tender Information
Project execution plan.
Contract conditions.
Project programme and other works inter dependencies.
Suggested forms for bonds, warranties, guarantees and other legals.
Site survey and site investigation reports.
Preliminaries requirements.
Stage 1 Design Report – updated as required.
Cost plan prior to tender.
Copies of statutory approvals secured by Board.
Health & Safety Plan and questionnaire.
Pricing schedules for pre-construction services
Board's FM requirements
Board's lifecycle requirements

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Stage 1 – Tender Response

Content
- Details of contractors team and structure.
- Relevant experience & reference sites.
- Key personnel and management structure.
- Legal framework for team, parent company.
- Company financial and commercial information.
- Response to PSC design, high level proposals.
  1:500 phased site plans for duration of works.
  1:500 floor plans all levels, 5@ 1:200 floor plans.
- Typical elevations and sections.
- 3-D visualization of design intent.
- Healthcare planning solution.
- Typical specification for building and engineering aspects.
- Approach to building design proposals.
- Commentary on buildability.
- Detailed review and commentary of project cost plan.
- Project risk assessment and management.
- Contractors proposals on quality and lifecycle costs.
- Detailed method statement for delivery of the project.
- Design and procurement timetable.
- Construction timetable.
- Contract management proposals.
- Manpower and resourcing proposals.
- Proposals for low carbon design and sustainable issues.
- Proposals for building commissioning and handover.
- Preliminaries costs for project
- Priced schedules for any advanced works.
- Fixed % for mark-up on provisional sums for trade works.
- Cost plan at Stage 1.
- Pricing matrix for Stage 1, needs more thought on scoring on cost.
- Contractor's draft tendering protocol.

Stage 2 – Tender Response

Content
- By end of stage – full clinical sign off;
- Healthcare planning proposal to include;
  Agreed functional content.
  Agreed and audited schedule of accommodation.
  Agreed audit of communication and circulation areas.
  Audit of scheme against infection control req.
  Audit of actual design versus brief.
- Whole site development control plans (incl. phasing).
- Site analysis of access and transport for design.
- 1:500 departmental relationship drawings and stacking diagrams.
- 1:200 department layout plans for all individual departments and wards.
- 1:200 elevations and sections.
- 1:50 typical room layouts (say 50 rooms in each facility).
- Room data sheets for all departments.
- Typical construction details for envelope, floors, walls.
- Interior design proposals including sample boards.
- Landscape proposals.
- 3-D design and computer studies.
- Wayfinding strategy.
- Fire evacuation and safety strategy.
- Demonstrate low carbon design strategy.
- Flexibility of design to change.
- Demonstrate FM services have been incorporated into design.
- Integration of sustainable issues, waste management, recycling.
- Demonstrate lifecycle on materials and equipment.
- Schedules for all building, engineering and IT infrastructure proposals.
- Details of finishes, components, fixtures, fittings.
- Engineering strategy, specification, schematics and schedules.
- Design programme.
- Programme to secure detailed planning consent.
- Project management and quality management arrangements.
- Construction programme, methodology phasing etc.

Guaranteed maximum price (not to be exceeded) – 80% certainty.
Contractor's overhead and profit percentages.
Agreement on LADS.
Agreement on contract form and willingness to enter into contract.
Details on insurances.
Finalised tendering protocol
Draft FBC forms.

FBC, Pre-contract and Mobilisation

Actions
- Secure detailed planning consent, prior to contract close.
- Final submission and review of contractors proposals.
- Agree GMP and cashflow forecast.
- Detailed review of clinical functionality, space, accommodation schedules.
- Detailed review of project specification and quality.
- Detailed review of lifecycle issues.
- Finalise all contract matters, insurance, bonds, warranties etc.
- Finalise and agree all sub contract packages and agree GMP.
- Finalise any enabling / service disconnections.
- Finalise site establishment and layout.
- Finalise FBC, clarify all outstanding contract issues in advance.
- Continue with design development and sign off within cost envelope.

New South Glasgow Hospitals

Procurement Paper

December 2008

[C&B update 01 Dec 08]

S+ W mark-up 2 December 2008

C&B update 04 Dec 08 - current

Prepared by

Shepherd & Wedderburn
Currie & Brown UK Ltd

Executive Summary

This paper has considered the relevant factors in relation to two key aspects of the procurement of the Project: the choice of procurement procedure and the form of contract.

The choice of procurement procedure will identify the engagement that can be conducted by the Board with the bidding market and sets boundaries as to the approach and conduct of both sides. The ability of the Board in this respect to pre-plan specific areas for detailed discussion with bidders, as well as react and address other material areas of the Project as the design solutions develop, is considered of key importance. Although the Project could be procured using the restricted procedure, the inherent flexibility achieved through the use of competitive dialogue in providing for an interactive and iterative process is seen as more appropriate given the scope that the Board wants to have to explore with the market the options around key elements of the Project. Only limited discussion based on clarification/understanding of requirements would be able to be conducted with bidders under the restricted procedure and therefore the use of competitive dialogue is the recommended procurement option to the Board. It is, however, recommended that further market sounding is concluded in respect of the use of competitive dialogue prior to final choice of procurement procedure as it is imperative that the particular application of the dialogue process by the Board on this Project is communicated to and understood by potential bidders.

The form of contract will govern the commercial agreement between the private sector constructor and the Board. It is therefore of critical importance that the form of contract allows the necessary management framework and controls for the delivery of the Project. Both JCT (SBCC) and NEC3 forms of contract have been considered for the Project. It is considered that the market is well versed and familiar in the use of JCT contracts, although use can encourage a “them and us” approach/culture and be reactive in decision making. It is noted that the use of NEC3 is increasing (favoured by OGC, the route selected by the Olympic Delivery Authority and the base contract for Framework Scotland for example) and this form provides a framework and cultural fit that aligns with the collaborative approach of the Project as well as the use of a Target Price option which exists in the NEC suite of contracts. Further, early warning and real time management of projects is supported by the NEC approach, avoiding hindsight based decision-making. It is therefore proposed that NEC3 represents the preferred form of contract to the Board for the delivery of the Project due to the importance of time and cost drivers to the Board as well as the cultural fit with the collaborative approach and Target Price outlook of the procurement process.

Contents

1.0 Introduction

NHS Greater Glasgow and Clyde (“the Board”) require to develop and conclude the procurement model for the New South Glasgow Hospitals development (“the Project”) in order that such can be ratified through the Gateway process and developed by the advisory team in readiness for taking the Project to the market. The aspects of procurement to be considered and concluded are the procedure choice and form of contract.

The Public Contracts (Scotland) Regulations 2006 (the "Regulations”) provide for four procurement procedures – the open procedure, the restricted procedure, the negotiated procedure and the competitive dialogue. The Board legal advisors, Shepherd and Wedderburn (“S&W”) have previously advised the Board that they consider the open and negotiated procedures to be inappropriate for this Project, which leaves the Board with the choice of the restricted procedure and the competitive dialogue. This paper sets out some issues to consider at the various stages in the procurement model when using the restricted procedure as opposed to the alternative competitive dialogue procedure and provides a conclusion as to the procedure to be followed.

The form of contract shall govern the contractual relationship between the Board and the private sector constructor chosen to design, build and construct the Project. This discussion paper considers both the Joint Contracts Tribunal (“JCT”) and the New Engineering Contract (“NEC”) options.

Given the specific nature of the Project and the current economic environment, contingency planning scenarios have been considered with regard to the various stages of the procurement. These are contained in Appendix A and identify potential options and alternatives the Board may face.

2.0 Public Contract Regulations

2.1 Introduction

The Board must decide which procurement procedure under the Regulations is most appropriate for delivering its preferred procurement model for the Project.

There are four procurement procedures available under the Regulations – the open procedure, the restricted procedure, the negotiated procedure and the competitive dialogue. S&W have previously advised the Board that they consider the open and negotiated procedures to be inappropriate for this Project – the open procedure has no pre-qualification stage and would require the Board to invite and evaluate tenders from all that respond to the OJEU notice which is unlikely to be appropriate given the nature and scale of the Project whilst the negotiated procedure is can only be used on exceptional grounds, on which the Board is unlikely to have grounds to rely in this instance. This leaves the Board with the choice of the restricted procedure and the competitive dialogue (subject to the caveat at section 2.2 below). This Section 2 sets out some issues to consider at the various stages in the procurement model when using the restricted procedure as opposed to the alternative competitive dialogue procedure: namely

- OJEU Notice;
- Pre-Qualification;
- Stage 1 – Pre-tender submission;
- Stage 1 – Post-tender submission; and
- Stage 2 – Pre-construction agreement.

What will become apparent through this Section 2 is that there are two key issues for the Board to consider in determining which procedure to use:

- To what extent does it want and/or need to be engaged in discussions with the bidders during the stage 1 tender process; and
- How does it propose to manage the stage 2 tender process with a single contractor?

The overall conclusion in relation to the choice of procurement is contained in a recommendation to the Board at Section 2.9.

2.2 Caveat on using the Competitive Dialogue Procedure

The competitive dialogue procedure is only available for "particularly complex contracts" i.e. where the contracting authority is not able objectively to:

- Define the technical means capable of satisfying its needs or objectives; or
- Specify either the legal or financial make-up of the project of both.

The question of whether or not the Project would fit the criteria for using the competitive dialogue procedure is addressed in the recommendation to the Board at Section 2.9.

2.3 OJEU Notice

What is involved: The procurement process will start with the publication of an OJEU notice advertising the Project and inviting expressions of interest.

Restricted Procedure: The OJEU notice will need to state that the restricted procedure is being used and, given that the Board intends to carry out a pre-qualification exercise, the notice will need to specify the maximum and minimum (not less than 5) bidders that the Board intends to pre-qualify.

Competitive Dialogue: The OJEU notice will need to state that the competitive dialogue procedure is being used and it will need to specify whether the Board intends to conduct the dialogue in successive stages.

Conclusions: The choice of restricted procedure over the competitive dialogue will not impact materially on the OJEU notice drafting. As a general point (and as explained in more detail below), the OJEU notice will need to state that the Board intends to award a contract to the successful bidder at the end of stage 1 (whether that is a pre-construction agreement or an NEC3 contract) which will govern the design development process at stage 2.

In order to include in the OJEU Notice, the Board will require to have established the criteria that it will apply in selecting bidders to tender/participate in dialogue.

2.4 Pre-qualification

What is involved: The Board will limit the number of bidders that are invited to tender by carrying out a pre-qualification exercise for all bidders that respond to the OJEU notice. The number of bidders invited to tender must correspond to the maximum and minimum numbers specified in the OJEU notice.

Restricted Procedure: The minimum number of bidders invited to tender must be no less than 5 i.e. more than the 3 that the Board envisages inviting to tender as per the current procurement model. If, however, fewer than 5 bidders were to respond to the OJEU notice and/or pass the pre-qualification, the Board could proceed with fewer than 5 provided that it had sufficient bidders to ensure genuine competition. The question of whether or not there is a "sufficient" number of bidders is something that would need to be considered in the particular circumstances including the state of the market and the likelihood of a fresh procurement resulting in increased interest in the Project.

Although there are only 3 contractors currently expressing interest in the Project there may still be others that will respond to the OJEU. Whilst the Board will no doubt welcome interest and competition from other parties, it will not want to allocate time and resource at stage 1 to contractors that are not genuinely interested and/or capable. The Board will therefore require to ensure that its prequalification exercise is structured appropriately so that, if 5 or more bidders express an interest, it will only be required to engage with those bidders that have the financial standing and ability to deliver the Project. It could be, therefore, that the standard set by the prequalification exercise results in fewer than 5 bidders being invited to tender, although the minimum prequalification standards of financial standing and ability specified by the Board will need to be relevant and proportionate to the Project.

Competitive Dialogue: The Board would be entitled to use the prequalification exercise to limit the number of bidders to 3. If fewer bidders pre-qualify, the Board would be entitled to proceed provided, as with the restricted procedure, that there were sufficient bidders to ensure genuine competition.

Conclusions: The prequalification exercise itself will be the same whether the restricted procedure or competitive dialogue is used but the number of bidders that the Board is required to take forward

to the next stage could vary depending on the procedure. Use of the restricted procedure could impact on the time and resources that would need to be allocated to stage 1 if 5 bidders were to pre-qualify. The key issue for the Board will be choosing an appropriate set of qualification criteria so that only those bidders that are of sufficient standing and capability for the Project proceed through to the tendering/dialogue stage.

2.5 Stage 1 – Pre-tender submission

What is involved: The stage 1 invitation to tender will detail the Board's specification and requirements for the Project and what is expected from the bidders' stage 1 responses. The purpose of stage 1 is to identify the Board's preferred contractor, which will be the bidder that submits the most economically advantageous tender at that stage.

Restricted Procedure: There is no express right under the Regulations to engage in pre-tender discussions/negotiations with bidders when using the restricted procedure. We would suggest, however, that a practical interpretation of the Regulations (backed up by common practice) would allow limited discussions for the purposes of clarification to ensure that the bidders fully understand what is required of them in terms of the Project overall and the tender submissions. In conducting any discussions the Board would need to be mindful of its obligation to treat all bidders fairly and equally and to act in a transparent manner.

Competitive Dialogue: The competitive dialogue expressly allows discussion on "all aspects of the contract". Competitive dialogue can only be used where the open or restricted procedures would not be appropriate, which would suggest that the scope of discussions under competitive dialogue must be wider than any pre-tender discussions that may be allowed under the restricted procedure.

Conclusions: The Regulations give much more flexibility in the pre-tender stage under the competitive dialogue procedure than under the restricted procedure. The competitive dialogue would allow for an interactive and iterative process in which the Board could take interim submissions and proposals from bidders and use these to shape and refine its own requirements. The restricted procedure, on the other hand, would allow some limited discussion but primarily for the purposes of clarification/understanding requirements.

Take, by way of example, the pain/gain mechanism that the Board wants to have in place during stage 2. Under the restricted procedure the Board would set out its requirements for the pain/gain mechanism in the tender documents; it might discuss this with the bidders to ensure that they have understood its requirements; it may give bidders the option to propose variant mechanisms, although it would likely want to discuss any variant proposals in advance and give some indication as to the variants that would/would not be acceptable; at the end of the day, any variant mechanism will be evaluated against the mechanism originally proposed by the Board. Under the competitive dialogue procedure, the Board would set out its requirements for the pain/gain mechanism; again this might be the subject of discussion between the Board and the bidders; the Board could ask bidders to propose and submit alternative mechanisms; the Board could respond by amending the mechanism it originally proposed; this process could be repeated as many times as desired until a mechanism is agreed; this would allow a mechanism to be agreed before final tenders are called for.

Further examples include the treatment of the FM ‘tail’ following the construction phase of the Project, as well as other commercial aspects of the construction contract including the payment profile during the design and construction phases. The ability to discuss in detail and consider various options and potential routes and applications with bidders would again be facilitated through a competitive dialogue approach rather than the restricted procedure.

The competitive dialogue offers scope to explore in detail various options and proposals from bidders which can in turn be used to refine the Board's requirements. Under the less iterative and

interactive restricted procedure, on the other hand, the Board is limited by whatever the bidders propose in their tender responses.

2.6 Stage 1 – Post-tender submission

What is involved: The Board will be selecting a preferred contractor on the basis of the most economically advantageous tender. It will be important to ensure that the tenders contain all information necessary for the Board to assess which bidder will be able to design and build the hospital for the best value. To this end we believe that it will be necessary to ask for bidders' responses to the terms of the stage 2 contract and (if a separate contract) the final form of design and build contract, as their proposals must be viewed in light of the commercial positions to which they are willing to commit.

At the end of stage 1 the relationship between the Board and the preferred contractor will be governed by a contract (a pre-construction agreement or an NEC3 contract) which will set out the parameters for design development and pricing. The risk that the Board faces at this stage is that none of the tenders submitted are capable of being accepted by the Board.

Restricted Procedure: The Regulations do not expressly allow for discussions/amendments to tenders at this stage under the restricted procedure. Any discussions would need to be limited to clarification or correcting genuine errors. Certainly it would not be permissible to engage in any informal discussions with bidders to allow them to improve their proposals. Commentators suggest, however, that if faced with a situation where none of the tenders are acceptable, the authority could conduct a formal second tendering round involving all of the same bidders. A second tendering round is less likely to give rise to fairness/equal treatment issues than informal discussions with bidders to allow them to improve their proposals. The Board's requirements for a second tendering round would, however, need to remain materially the same and so this might not provide a solution to, for example, all bids being unaffordable.

Competitive Dialogue: Under the competitive dialogue procedure, the scope for post-tender discussion is expressly limited to clarification, specification and fine-tuning with the caveat that no changes are allowed that would distort competition or cause discrimination. It is unclear whether a second tendering round would be allowed under the competitive dialogue if no acceptable bids were received at final tender stage, but a common sense approach would allow for one involving all of the same bidders. The advantage of the competitive dialogue, however, is that the pre-tender dialogue allows the authority to assess bidders' readiness and ability to submit final tenders that are acceptable and it will not call for final tenders until it is confident of this.

Conclusions: The ability for the Board to engage in wide-ranging dialogue with bidders during the stage under the competitive dialogue would reduce the risk that the Board is faced with no acceptable tenders. If using the restricted procedure, the Board could mitigate this risk by defining a clear and reasonable set of requirements (including commercial terms) and testing these with bidders through a formal clarification process. If the risk materialised the Board could run a second formal tendering round, although this would obviously have implications for the Project timetable and, given the restriction on the Board changing its requirements at this stage, an acceptable tender second time round would be by no means guaranteed.

2.7 Stage 2 – Pre-construction agreement

What is involved: The pre-construction agreement (or NEC3 contract) between the Board and the preferred contractor will set the process and parameters for the design development within the Target Price through to FBC and final contract award.

Restricted Procedure: The Regulations do not expressly allow post-tender dialogue/negotiations after the appointment of a preferred contractor under the restricted procedure, although these are probably acceptable to a limited extent (clarification, fine-tuning etc). The principles of fairness,

transparency and equal treatment will apply and so any discussions that result in a more favourable position for the bidder would generally not be permitted.

Competitive Dialogue: The same position applies, however, under the competitive dialogue, where the Regulations expressly state that the successful bidder may only be allowed to clarify aspects of its tender or confirm commitments, provided that this does not result in substantial modifications of the tender and does not risk distorting competition.

Conclusions: Given the limited scope for post-tender dialogue with a preferred contractor under both the restricted and competitive dialogue procedures this poses the question of what basis will the Board be entitled to work with the successful bidder in the design development and pricing exercise at stage 2? There are two ways of looking at this issue:

1. it could be argued that, given the award of a contract at the end of stage 1, the stage 2 discussions are taking place within the context of a contractual framework rather than as post-tender discussions. The bidders will have been notified of this contractual framework, and the process to agreeing the final design and build obligations, in the OJEU notice; or

2. even if the discussions at stage 2 are viewed as post-tender discussions, the unsuccessful bidders may find it difficult to argue that they are prejudiced or discriminated against by the stage 2 in itself. All of the bidders will know that the contract will be awarded on the basis of their stage 1 responses and that that will be their opportunity to demonstrate why they should be appointed. Whilst the stage 2 discussions do not necessarily fit neatly within either procurement procedure, this means that the risk of challenge is mitigated.

The arguments above both assume, however, that stage 2 is not a negotiation but a transparent, pre-defined process that is worked through to crystallise the design and build obligations within parameters defined in the successful stage 1 tender and the pre-construction agreement. The risk that the Board faces (in terms of procurement challenge but also commercially) is that the deal as it stands at the end of stage 1 starts to unravel during stage 2.

To manage this risk the Board has in place a strong project management structure to control (a) changes to its own requirements and specification (to avoid any challenge that the Project has changed materially from what was originally advertised) and (b) the preferred contractor looking to open-up the basis on which it was appointed at the end of stage 1 (to avoid any challenge that it is no longer offering the most economically advantageous solution).

It is suggested that the procurement route is not critically impacting on this stage of the procurement, rather the treatment and establishment of the commercial terms of the bid being set and established to allow the Board to navigate the (not dissimilar) requirements of either route is the critical requirement.

2.8 Summary of Restricted Procedure v Competitive Dialogue

One of the key advantages of the restricted procedure is market perception – bidders will anticipate that a restricted procedure procurement will be quicker and cheaper than a competitive dialogue and are therefore more likely to be attracted to bidding.

The main advantage of the competitive dialogue over the restricted procedure, on the other hand, would be the express ability for the Board to engage in detailed discussions with bidders at stage 1. This in turn would reduce the risk that the Board could be faced with no acceptable tenders at the end of stage 1. To some extent this risk with the restricted procedure can be managed by:

- A clear set of requirements and specification in the invitation to tender documents;

- A series of clarification meetings with bidders to ensure that they understand the invitation to tender and what is expected of them in their response. Some consultation may also be permissible to determine whether there are issues with the Board's specification and requirements that ought to be amended/refined;

- A formal second tendering stage if the first stage 1 tender responses are unacceptable;

Regardless of whether the restricted procedure or competitive dialogue is used, the Board will require to ensure that:-

- It requires bidders, in their stage 1 responses, to provide sufficient information to allow the Board to make an assessment of the most economically advantageous tender and not leaving until stage 2 agreement on any issues that would impact on that assessment.

- It manages the stage 2 process within the parameters defined in the stage 1 tender and the pre-construction agreement.

- It keeps control of changes to its own requirements and specification during stage 2.

2.9 Recommendation to the Board

The Project Team and advisers have considered and discussed in detail the issues raised in Sections 2.1 to 2.8 above and come to the following conclusions:

- The technical (design) and pricing information that the Board is looking for in the stage 1 tender responses could be obtained through a restricted procedure procurement. The Board and technical advisers consider that the Board's requirements and specification shall be sufficiently developed to allow the bidders to formulate their stage 1 responses without the need for dialogue with the Board. That said, it would be beneficial to have a series of clarification meetings, as is the norm in restricted procedure procurements, to ensure that the bidders fully understand the Board's specification and its requirements for the tender responses.

- There are some elements of the Project, however, where the flexibility of communication and interaction between the Board and bidders that the competitive dialogue offers would be beneficial. These include (i) the pain/gain share mechanism that will form part of the stage 2 process, (ii) certain commercial aspects of the contract including the payment profile for the design and construction phases and (iii) the lifecycle/maintenance compliance period at the end of construction. These issues will be key elements of the Board's decision in selecting a preferred bidder and, on these issues, the Board cannot be certain what the market is able to offer in response to its requirements. It is recommended that the Board formulate its requirements, however flexible at this stage, on these issues.

- In addition, it is not unreasonable to consider that other aspects of the Project (e.g. interface with other works on the site) may require engagement with bidders in a dialogue setting as the procurement develops and therefore having built-in flexibility from the outset will assist in the management and treatment of aspects of Projects risks through the tender process.

- There is evidence to suggest increased appetite amongst bidders to challenge public authorities on their conduct of procurement processes where they feel they have been prejudiced. In allowing itself flexibility to engage with bidders through a competitive dialogue process the Board eliminates the potential for criticism and/or challenge that it could otherwise face were it to find itself needing to open up discussions with bidders under a restricted procedure. That said, the competitive dialogue procedure does not give an

authority absolute freedom – it must still ensure compliance with general principles of openness, transparency, non-discrimination and equal treatment.

- On this basis, it is considered that the inherent increased flexibility during the pre-tender stage under the competitive dialogue procedure rather than under the restricted procedure sets a clear potential benefit to the delivery of the Project. That is, the competitive dialogue would allow for an interactive and iterative process in which the Board could take interim submissions and proposals from bidders in relation to the unknown/uncertain elements of the Project and use these to shape and refine its own requirements. The restricted procedure, on the other hand, would allow some limited discussion but primarily for the purposes of clarification/understanding requirements.

- In order to use the competitive dialogue procedure, however, the Project must satisfy two tests. Firstly, it must involve a "particularly complex" contract i.e. the Board must be unable to define the technical means for satisfying its requirements and/or the legal/financial make-up of the Project. A practical interpretation of this test is that the authority is unable to objectively assess what the market is able to offer by way of technical and/or legal/financial solutions. There are a number of elements of the Project that arguably fall into this category – e.g. the pain/gain share mechanism and FM/lifecycle tail – where there is potentially a number of solutions that the market may be able to offer the Board. Secondly, the Board must be of the opinion that the open or restricted procedures would not enable a contract to be awarded. Given the importance of the key commercial issues identified above in the Board's evaluation of the stage 1 tenders, to fail to address them and reach a satisfactory conclusion on these issues in the stage 1 tender responses (which would be a risk under the restricted procedure where only clarification and limited discussion would be allowed) the Board could arguably be unable to award a contract if it were to use the restricted procedure. On this basis it is suggested that the Board would have grounds to use the competitive dialogue procedure.

- It is important to note, however, that the initial market sounding in relation to the Project has identified a strong adverse reaction to the use of the competitive dialogue procedure. The Project Team and advisers consider that this view in the bidding market has manifested itself from the experience to date in bidding for PPP projects, where competitive dialogues have proved lengthy and expensive. To maintain the current market interest and engagement in the tendering process for the Project, this is a key issue that the Board needs to address.

- The Project Team and advisers believe that the competitive dialogue process could be structured so that the dialogue is limited to certain aspects of the Project – the key commercial issues such as the pain/gain share, payment profile and lifecycle/FM compliance period – to ensure that these issues are adequately addressed and solutions agreed before the stage 1 tenders are submitted. Given the limited design and the pricing information required at stage 1 in any event, these elements could be dealt with through a simple clarification process as per the restricted procedure, without the need for protracted dialogue and numerous interim submissions.

- If using the competitive dialogue procedure it will be of paramount importance that prospective bidders are informed of the Board's intended approach – i.e. a succinct dialogue devoted to certain issues over a specific time period and no interim bid submissions (and therefore increased bid costs) on technical and pricing issues.

- The engagement to date with potential bidders with regard to limiting the use of dialogue to key areas met no adverse reaction. It is, however, recommended that further market engagement with bidders is carried out to confirm the likely acceptance of a clearly specified use of the competitive dialogue procedure at stage 1 and to allay any concerns

that they might have about a protracted and expensive process (which is unnecessary and undesirable for all parties in any event).

- The next action must be to consider the detail of the competitive dialogue procedure – the different workstreams involved, meetings envisaged, interim submissions and how the Board is going to evaluate the final tender responses and ultimately choose its preferred partner for the Project.

3.0 Form of Contract

3.1 Introduction

The purpose of this section is to set out in general terms the perceived advantages and disadvantages of both the JCT/SBCC and NEC suite of contracts in order that the Board can make an informed choice of which standard form contract they want to use as the base document for entering into a contract for the design and construction of the Project.

The SBCC/JCT suite of contracts has been in common use in the industry since the 1960's. It is a form of contract both contractors and professional advisers are very familiar with. By comparison the NEC suite of contracts are a relatively new contracting format; although the contracts have been used by the utilities industries for some time. NEC is perceived to be more "modern" in its approach to contracting and has been endorsed by, amongst others, the OGC and the ODA.

3.2 Background

In 1999 the Chief Secretary to the Treasury launched the Achieving Excellence in Construction initiative ("AEC") as a three-year initiative to improve the performance of Government as a client of the construction industry. The initiative has the following key aspects:

- partnering;
- the development of long-term relationships;
- reduction of financial and decision-making approval chains;
- improved skills development and empowerment;
- the adoption of performance measurement indicators; and
- the use of tools for value and risk management and whole life costing.

In 2005, the OGC carried out an evaluation of forms of contract for the procurement of construction and concluded that the NEC3 suite of contracts was fully compliant with AEC and OGC gave its support to the use of NEC3 by public sector procurers.

The NEC3 Contract is a legal framework of project management procedures designed to handle all aspects of the management of engineering and construction projects. Its benefits – stimulus to good management, flexibility and simplicity – can be applied to any project, large or small.

The purpose of this section is to set out in general terms the perceived advantages and disadvantages of NEC3 in order that the Board can make an informed choice of whether NEC3 can provide them with a suitable contractual framework for procuring the design and construction of the Project. The paper also considers the JCT/SBCC suite of contract documents and whether they are a viable alternative to NEC3.

3.3 NEC3

NEC has traditionally been used for large infrastructure projects but is increasingly being used to procure buildings and other structures, particularly in the Public Sector. The terms and conditions are a contractual project management tool aimed at steering a project to complete on time and within budget.

Advantages	
Proactive and collaborative management of decisions and project management – resolving problems and finding solutions as they occur.	Under many other forms of contract, issues such as extra time and money tend to be "swept under the carpet" until the works are completed and are assessed by or on behalf of the Employer rather than in a collaborative manner. This can lead to

	excessive claims and delay and break down in the relationship between the Employer and Contractor. Also uncertainty as to completion and price. The NEC contains an overarching obligation on both the Employer and the Contractor (as well as on the Employer's project manager and supervisor) to act in a spirit of mutual trust and cooperation.
Early warning regime to ensure parties are made aware as soon as possible of events which may increase price or delay completion or impair performance	While many projects constructed under other forms of contract incorporate an informal early warning system for events which can impact upon the project, these provisions often have few, if any consequences if they are not adhered to. Under NEC failure to give an early warning has consequences:- Where the Contractor fails to give an early warning, the payment due to him for an event may be reduced; and if the Project Manager fails to give an early warning he risks failing to find the best solution to the problem by reducing the time available to discuss it with the Contractor.
Compensation Events with an onus on both parties to notify and to agree on changes contemporaneously with the change being implemented.	Compensation events are events that if they occur and do not arise from the Contractor's fault, entitle the Contractor to be compensated for their effect on price and programme. Failure by the Contractor to notify an event he should have notified may lead to a claim being time barred. Failure by the Employer to notify an event he should have notified may lead to late claims for delay/sums from the Contractor (thus defeating the purpose of agreeing impact when the event occurs). The regime encourages prompt notification and resolution of events, allowing the project to proceed without the distraction of unresolved claims.
PM procedures	The term and conditions are a legal framework of project management procedures. They reflect "good practice" while at the same time providing contractual remedies where one (or both) parties to the contract fail to implement the administrative requirements.
Risk Register is a contractual document	The majority of projects constructed under other forms of contract do put risk registers in place. However they tend not to have a contractual mechanism for updating the document. Under NEC, where an early warning is given, parties meet to discuss the risk and revise the Risk Register to record any decisions reached. The Risk Register is a "live" document which at any time should be up to date to avoid (insofar as possible) risk "surprises".
Programme is contract document but can flex – many of the procedures in the contract rely on an	The Programme enables the Contractor and the Employer to monitor real progress and to assess

accurate and up-to-date programme and it is used for joint decision making. That encourages the Contractor to keep it up to date.	time effects of compensation events, including changes to the Completion Date. The Contract sets out the detail the Contractor must include within the programme which includes the planned completion date, float, access, key dates, resources etc. The Contract allows for the programme to be updated either when the Employer instructs, when the Contractor chooses, or as set out in the contract. Failure by the Contractor to submit a programme requested by the Employer within the time stated in the contract, can lead to any subsequent compensation even being assessed on the Employer's project manager's own judgement.
Defined responsibility for control of quality.	Express terms and obligations for supervision of quality control, compliance and defect management.

Disadvantages	
Administratively heavy for both Contractor and Employer and therefore perceived to be more costly contract to administer.	There are consequences for both Contractor and Employer if they fail to comply with the early warning and compensation event regimes. The Contractor's claims may be time barred or assessed at the time they should have notified the event and on the project manager's sole judgement. The Employer may find himself receiving late claims from the Contractor. The perception that the contracts may be more costly to administer may be false – the NEC contains "best practice" project management provisions which are likely to be used in the majority of contracts in any event. Just because they are not contained in the terms and conditions of other projects does not mean that parties do not pay for such project management.
Huge responsibility on PM of Employer to properly manage. There are penalties if he fails to respond on e.g. compensation events	The Employer must ensure that he employs a competent and experienced project manager to undertake the various roles that individual must undertake. In large projects, the Employer may consider employing several project managers – one to manage compensation events, one to manage risk and early warning etc.
Wording is not particularly legal which has lead to criticisms that remedies are not clearly set out	NEC is a project management tool and as such is written in ordinary language – the aim being to make the terms understandable to those not used to dealing with formal contracts. There is little case law on interpretation of the contract – possibly due to the fact that it has only become popular in the last 10 years during "boom" times (when traditionally there are fewer disputes). NEC

	supporters would argue that it is because of the simplicity of the wording that claims do not arise.

3.4 Other forms of Contract

The only other viable form of contract for this project would be an SBCC contract (both ICE and GCWorks having been discounted as they do not fit with the partnering/collaborative approach of the Board and the Target Price outlook). The SBCC contracts are in common use for construction projects in Scotland are derived from JCT forms of contract. They have been in use for many years and are generally well understood by the industry. Their latest iteration are the 2005 documents which sought to update and make the contracts more user friendly by setting out the clauses in a more logical format. The latest edition did not however change the basis upon which the Employer and the Contractor engage under the Contract.

Advantages	
The market is very familiar with these forms of contract (albeit not so familiar with the 2005 edition).	The majority of the bidders will also however be familiar with other types of contract.
Employer can maintain a certain distance from issues such as EoT and changes until such time as he is ready to deal	Traditional "them and us" approach which many Employers may be more comfortable with.

Disadvantages	
Encourages a "them and us" culture	This may not be conducive to getting the project completed to time and budget (both of which are relatively inflexible in this project). Does not give the Contractor ownership in the project thus reducing the sense of "pride" and quality which could be a huge disadvantage in current market for a project of this scale.
Reactive and hindsight based decision making i.e. final decisions on extensions of time and loss and expense claims tend to be left until the end of the works	If a problem is not addressed quickly its impact may increase through extra time and money and it may lead to a breakdown in relationship between Employer and Contractor. Failure to address issues as they occur is unsatisfactory for both parties – Employer needs to know when the project will be completed and at what price as soon as possible. Contractor needs to know when he can commit to starting on his next project and how much profit he will make as soon as possible. Not to mention whole cashflow issue.
Relies on a "final account" process after the works are complete which can lead to delays in settling claims as everyone has moved on	As above, if final accounting not resolved until some time after the contractor has left site, results in retained resource and uncertainty.
Variation process is one sided	Assessment and effect of variations and events tends to be rather one sided – this may not be in the interests of the project.
No defined approach to external control of quality.	The role of 'Clerk of Works' is not clear and can

	lead to confusion and conflict over obligations and responsibilities.

3.5 Summary

Use of NEC3 is on the increase. OGC favours the use of NEC3 on public contracts. The Olympic Delivery Authority has decided to go down an NEC route. Framework Scotland uses NEC 3 as its base contract.

There are advantages and disadvantages associated with using NEC on this Project. The Board must establish their priorities for the project and in so doing this may steer them down a particular route. Assuming programme and cost are priorities, the NEC compensation event and programme provisions may favour the use of that contract. If the Board want to maintain a distance from the Contractor they may opt for a more traditional contracting route such as SBCC.

Once the Board have decided which suite of contract to follow, work can start drafting up the contract documentation to include bespoke "project specific" additional clauses as well as the contractual framework to allow appointment after stage 1 and "gateway" authorisations through stage 2.

3.6 Recommendation to the Board

The Project Team and advisers have considered and discussed in detail the issues raised in Sections 3.1 to 3.5 above and come to the following conclusions:

- The construction market is well versed and familiar with the JCT suite of contracts and their application;
- The proposed approach to the Project would, however, necessitate significant amendment/redrafting to JCT to accommodate;
- The JCT approach is not a cultural fit with the collaborative approach proposed for the Project;
- NEC presents a cultural fit that supports the Target Price outlook of the Project;
- Early warning and real time management of projects is supported by the NEC approach; and
- NEC requires a significant management input from the Board.

Taking the preceding points into account, it is considered that the advantages of NEC and the inherent cultural fit as well as active management outlook offer more benefits to the Board over the JCT option.

4 Recommendations to the Board

4.1 As is identified in Section 2.9, it is proposed that the competitive dialogue procurement procedure represents the preferred option to the Board due to the inherent increased flexibility provided during the pre-tender stage.

4.2 As is identified in Section 3.6, it is proposed that NEC3 represents the preferred form of contract to the Board for the delivery of the Project due to the importance of time and cost drivers to the Board as well as the cultural fit with the collaborative approach and Target Price outlook of the procurement process and the avoidance of significant bespoke drafting that would be required if JCT were utilised.

4.3 It is recommended that further market sounding is carried out by the Board in advance of final selection of procurement procedure and form of contract. This, in the main, is in order to communicate and discuss the Board's proposed use and application of competitive dialogue to the Project with current interested parties. Such market sounding will ensure that the dialogue process is explained to potential bidders and therefore interpreted by them as not leading to elongated bid periods and costs.

Appendix A – Contingent Positions

New South Glasgow Hospitals
Procurement Paper
November 2008

Appendix A – Contingent Positions

The under noted identify potential scenarios and challenges that may be faced during the stages of procurement, as well as identifying the contingent routes/options that may be available to the Board in respect of each event. The listing is not considered to be exhaustive, rather reflective of possible known situations arising from the bidding market/external market environment or Board decision making.

OJEU period (advertisement of the scheme to the bidding market)

Scenario	Outcome/Option
No responses received	Re-scoping project and/or re-engagement with market.
One response received	Consider re-scoping or assess viability for single bidder route – Audit Scotland/VfM assessment etc.
Two responses received	If the two bidders pre-qualify the Board would be entitled to proceed with the two provided that this was regarded as sufficient to ensure genuine competition. If neither, or only one, of the bidders passed the pre-qualification stage then the outcomes/options would be as above.
Three or more responses received	The Regulations specify that the number of bidders invited to participate in dialogue may be restricted to no fewer than 3. The Board is also entitled to specify a maximum number of bidders that it will take forward to the dialogue stage. The Board needs to ensure that its pre-qualification assessment is structured so that the number of bidders can be restricted to three at this stage in order to avoid engagement with an extensive number of bidders. This means that the pre-qualification must allow for a qualitative assessment and ranking of interested parties as well as a pass/fail against minimum criteria. If, however, fewer than three bidders pass the pre-qualification then the Board would be

	entitled to proceed with two provided that this was regarded as sufficient to ensure genuine competition.

Bidding Period (post prequalification selection of bidders)

Scenario	Outcome/Option
One bidder taken forward – bidder pulls out	Re-scoping project and/or re-engagement with market.
Two bidders taken forward – one pulls out	Consider re-scoping or assess viability for single bidder route – Audit Scotland/VfM assessment etc.
Two bidders taken forward – both pull out	Process incomplete – requirement to re-advertise (including re-scoping if necessary).
Three bidders taken forward – one pulls out	Continue process with two remaining bidders.
Three bidders taken forward – two pull out	Consider re-scoping or assess viability for single bidder route – Audit Scotland/VfM assessment etc.
Three bidders taken forward – all pull out	Process incomplete – requirement to re-advertise (including re-scoping if necessary).
Tenders submitted are unacceptable	CD route would allow the Board to move to a negotiated procedure procurement without re-advertisement of the scheme in the OJEU. There are certain conditions that would need to be complied with however: (i) Board would, however, need to invite all of the bidders that pre-qualified to negotiate (ii) the contract could not be substantially altered from the contract originally advertised and (iii) the Board would need to ensure a degree of advertising that was sufficient to enable an open competition, equal treatment, non-discrimination and transparency.

Design Development (bidder appointed and working to conclude Target Price)

Scenario	Outcome/Option
Contractor pulls out due to insolvency/default	Contract to provide that design and other relevant information (IPR) is protected to allow the Board to utilise this information and re-engage with the market. Depending on the stage that had been reached in design development, this information could perhaps enable the Board to re-advertise the Project

	under the restricted procedure.
Process stopped as agreement cannot be reached	Contract to provide that design and other relevant information (IPR) is protected to allow the Board to utilise this information and re-engage with the market. Depending on the stage that had been reached in design development, this information could perhaps enable the Board to re-advertise the Project under the restricted procedure.

Construction Period (Target Price concluded scheme on site)

Scenario	**Outcome/Option**
Contractor pulls out due to insolvency/default	Contract to provide that design and other relevant information (IPR) is protected to allow the Board to utilise this information and re-engage with the market. This information could enable the Board to advertise the Project as a construction-only contract using the restricted procedure.

Programme
Policy
Project
Delivery

The Scottish Government

CENTRE OF EXPERTISE FOR
Programme, Policy and Project Delivery

Gateway Review

PROJECT: New South Glasgow Hospital

Gateway Review 2
(Delivery Strategy)

Report Status:	Final
Date/s of Review:	27/01/2009 to 29/01/2009
Draft Report Issued to SRO:	29/01/2009
Final Report Issued to SRO & Copied to Centre of Expertise:	05/02/2009
Overall Report Status:	Amber
Senior Responsible Owner:	Helen Byrne
Scottish Government's Accountable Officer:	Kevin Woods, DG-Health and Chief Executive NHSScotland
Organisation's Accountable Officer: (where appropriate)	

Contents

1. Background

1.1 Aims of the Project

The New South Glasgow Hospitals project is the largest NHS project currently underway in the UK. It involves the co-location and reconfiguration of Acute Services onto the Southern General Hospital site. The project is one of the key vehicles for the delivery of the Greater Glasgow and Clyde Acute Services Strategy. The project sets out to deliver the following:

- Provision of a New Adult & Children's Hospital complex which will be state of the art in all aspects of its design, construction and operation and puts in place the renewal of another part of Glasgow's acute healthcare facilities;
- Meets a major element of service provision through implementing the next stage of ASR;
- Provides radically redesigned clinical services to meet the needs of the local and wider Scottish population;
- Public, staff and other agencies involved in developing design;
- Achieves greater clinical adjacencies and co-locations within and between Adult Acute & Children's Acute Services;
- Provides greater value for money than compared to the present service configuration;
- Will improve recruitment of all types of staff;
- Puts patients at the heart of service planning;
- Will operate in conjunction with new hospitals at Stobhill and Victoria, in addition to the 2 other inpatient sites in Glasgow.

1.2 Driving Force for the Project

NHS Greater Glasgow approved the Acute Services Strategy (ASS) to modernise services across the city in 2002. Ministerial approval was received in August 2002. The strategy is underpinned by extensive consultation with local communities and planning partners, locally and nationally, and identifies the future reconfiguration of services in Greater Glasgow - requiring investment capital of some £900 million overall.

The strategy is based on retaining three adult in-patient hospitals at Southern General Hospital, Glasgow Royal Infirmary and Gartnavel General Hospital, supported by two new hospitals at Stobhill Hospital and the Victoria Infirmary.

1.3 Procurement/Delivery Status

The Outline Business Case (OBC) was completed and approved by both Greater Glasgow and Clyde Health Board and at Cabinet of the Scottish Government. At the time of this review, a clear delivery timetable had been developed, including details of the chosen procurement route – a two-stage design and build.

1.4 **Current Position Regarding Gateway Reviews**
This is the second Gateway review of the project. A Gateway 1 Business Justification review was carried out in January 2008.

2. Purpose and Conduct of the Review

2.1 Purpose of the Review

2.1.1 Gateway Review 2: Delivery Strategy. This Review investigates the assumptions in the Outline Business Case and proposed approach for delivering the project. If there is a procurement, the delivery strategy will include details of the sourcing options, proposed procurement route and supporting information. The Review will also check that plans for implementation are in place.

2.1.2 A full definition of the purpose of a Gateway Review 2 is attached for information at **Appendix A**.

2.1.3 This report is an evidence-based snapshot of the project's status at the time of the review. It reflects the views of the independent review team, based on information evaluated over a three to four day period, and is delivered to the SRO immediately at the conclusion of the review.

2.2 Conduct of the Review

2.2.1 The Gateway Review 2 was carried out on 27/01/2009 to 29/01/2009 at the Hillington offices of the project team.

2.2.2 The Review Team members and the people interviewed are listed in **Appendix C**.

2.2.3 The Review Team would like to thank the SRO, the Glasgow South Hospital and all interviewees for their support and openness, which contributed to the Review Team's understanding of the project and the outcome of this review.

3. Gateway Review Conclusion

The Review Team finds that the project has made significant progress since the first Gateway review in January 2008. The key managers across the project all have a very detailed of understanding of all areas of the project. This reflects both the quality and level of communication and the GG & C Health Board's approach to accountable officer responsibilities, which leads to the involvement of the key players in a large number of project boards and groups. The project has taken a very robust approach to the identification of a suitable procurement route (two-stage design and build), seeking input from technical, financial, legal and procurement advisors and the marketplace. The prudent financial planning in the OBC means that the project is as well-positioned as possible to manage the uncertainties of the current economic climate. The public support of the Scottish Government in approving the OBC is

expected to bring increased confidence to the market. This reports comments on potential improvements to the project structure, as well as the opportunity to carry out a more detailed description of the benefits outlined in the OBC. The project's approach to risk management has also improved, with the implementation of a single clear register, and the addition of a well-structured issues log.

3.1 Good Practice. The project recognised the challenge inherent in delivering such a large project without using PFI and set out to understand which traditional procurement route would generate competitive interest from the market as well as allowing the risks to budget and programme to be effectively managed. The way the project developed sufficient understanding, using both market sounding and specialist advisor workshops, is to be commended.

In addition, the review team were pleased to see that the project is learning from the experiences of other health projects through a series of site visits.

3.2 The overall Report Status is **AMBER**.

3.3 A summary of the Report Recommendations and a definition of the RAG categorisation is available at **Appendix B**.

4. Findings and Recommendations

4.1 Assessment of the delivery approach

4.1.1 When this project was initiated, it was expected that a PFI route would be used. In early 2008, the decision was made by Scottish Government to fund the project in a traditional way. This decision meant that the project had to identify a procurement route which would be:

- attractive to the market and lead to a competitive procurement;
- deliver the quality of output required by the client, and,
- provide assurance of delivery within time and budget.

4.1.2 In selecting the procurement route, the project team sought input from technical, financial, legal and procurement advisors – the project invited four project management companies to deliver presentations on their ideas on how to meet the procurement challenges – and the market place – the project has discussed the challenges from the perspective of a main contractor. This detailed analysis has led the project to identify the procurement route as a two-stage design and build, with the PQQ being used to down-select to a maximum of three contractors. Stage one will then use a short period of competitive dialogue to select a preferred bidder (this stage is kept short and will down-select to a single preferred bidder in order to keep bid costs at an acceptable level), at which point a contract will be signed including a target price. Stage two will see the contractor develop the detailed design with the client.

4.1.3 Given the circumstances, the review team considers the selection of procurement route has been a good process resulting in an appropriate strategy.

Although the review team recognises the efforts of the project team to identify this procurement route, there remain two factors which can only be assessed once the procurement is running – firstly, the appetite of the marketplace for such a large contract using a traditional route may be limited and the risk of a single bidder is real. Secondly, the current economic climate, in which even established main contractors may find it difficult to gain board and funding support for such a large project.

Recommendations:

None

4.2 Business case and stakeholders

4.2.1 The OBC was approved by the Cabinet of the Scottish Government, giving public support for the project and providing increased assurance to bidders that the project has support at the highest level. The overall funding position includes offsetting capital receipts from disposals against the costs of the new-build. The project team has recognised the impact of the property market in setting the level of capital receipts and has taken a prudent position in this respect. This approach is even more appropriate given the change in the property market since OBC approval.

4.2.2 The review team were impressed by the level of communication across a very wide stakeholder body. The project is successfully managing relationships with over 90 user groups, as well as maintaining a high level of communication with external bodies. The review team recognises the good work being done in drawing on clinical colleagues' knowledge in the design of the new hospitals. It was not clear how this level of engagement would be maintained as the design process continues. Ongoing communication with user groups will be an important way of maintaining current levels of enthusiasm for change.

4.2.3 The project has identified a series of benefits and operational changes which will be delivered through the new hospitals. These now need to be developed into more detailed benefits plan that can be managed through to delivery.

Recommendations:

R1. The project should maintain the high level of communications with internal stakeholders. (Green)

R2. The project should develop a more detailed benefits management plan. (Amber)

4.3 Risk Management

4.3.1 The review team were pleased to see that the project had implemented an improved risk register since the last review. In addition, it was clear to the review team that risks are discussed frequently in team meetings and offline, and that mitigating actions are being undertaken as a matter of course. The risk register is

also reviewed in detail at all levels of the governance structure, including at the Executive Board. The project team should ensure that all external advisors are familiar with the process for identifying, recording, prioritising, reviewing, reporting upwards and costing each risk. The project team may consider the use of the technical advisors in leading the risk management role.

Recommendations:

R3. The project should ensure all members of the team understand the risk management process. (Green)

4.4 Review of current phase

4.4.1 This review took place at a time when the project was working to deliver a number of important elements of the procurement strategy, including the evaluation criteria, the areas for inclusion in the competitive dialogue phase and development of a benefits management approach. This represents a considerable body of work, which will be delivered by a relatively small number of people in a limited time period. Interviewees did not provide a consistent description of the project's plan to finalise this work and the review team believe a clear plan for delivery would help to ensure the production of good quality outputs at the correct time.

Recommendations:

None

4.5 Readiness for next phase – investment decision

4.5.1 As noted above, the project has undertaken a detailed assessment exercise in order to identify an appropriate procurement route. The project team acknowledge that the procurement route is novel and is likely to cause a degree of concern among bidders, although the project team has worked proactively to manage this risk through communication with potential bidders. The care and intensity of communication needed to manage a successful procurement will place great pressure on the project team (particularly the senior figures involved) and the review team were pleased to hear that a revision to the project's structure was already being considered for the next phase. The review team suggest that this could lead to a more streamlined and integrated structure (i.e. amalgamate the New South Glasgow Hospitals Executive Board and the Procurement & Finance Group), and would typically include a weekly project team meeting (instead of the current fortnightly arrangement) where all currently relevant areas (e.g. design, procurement, finance etc) are reviewed with the appropriate representation from project team and advisors. This meeting would have clear authority for day to day decision making and the formulation of recommendations on more significant issues to the Executive Board for approval (the current joint project meeting does have the day to day decision making authority and makes regular recommendations and advisors are invited when appropriate). This 'all informed' approach will be essential for effective management through the next phase.

4.5.2 The review team remain concerned that the position of Project Director does not have a deputy. The appointment of a deputy would provide a useful development opportunity for the Board, as well as reducing the risk of having a single point failure. The review team acknowledges the financial pressures on the Board to deliver efficiency savings and the impact this has on resource decisions.

4.5.3 The NEC3 form of contract is different to many other forms of contract in that it provides a tool for managing the project. The appointment of an experienced NEC3 project manager pre the construction works provides an opportunity to ensure that the construction contract delivers what the client wants.

4.5.4 The project is considering how to manage the risk that the hospital does not perform to the expected standards after the construction is complete (this risk is mitigated in a PFI contract by the fact that the Special Purpose Vehicle both builds and maintains the facility). The NEC3 contract form requires the appointment of a Supervisor. It is believed that, if appropriately funded and supported by the client, this can lead to improved quality of output and a lower defect rate. The project is also looking at innovative models to incentivise the contractor to minimise defects on handover.

Recommendations:

R4. The project should consider a more integrated project structure. (Green)

R5. The project should consider the appointment of a deputy Project Director to cope with the additional workload of future project phases and enhance the experience and capability within the GG&C Board. (Green)

5. Previous Gateway Review Recommendations

5.1 The previous report recommendations were considered by the project and responded to appropriately. The review team have repeated the previous recommendation for the appointment of a deputy project director.

6. Next Gateway Review

The next Gateway Review 3 Investment Decision expected to support the approval of the FBC currently scheduled for September 2010.

7. Distribution of the Gateway Review Report

7.1 The contents of this report are confidential to the SRO and their representative/s. It is for the SRO to consider when and to whom they wish to make

the report (or part thereof) available, and whether they would wish to be consulted before recipients of the report share its contents (or part thereof) with others.

7.2 The Review Team Members will not retain copies of the report nor discuss its content or conclusions with others.

7.3 A copy of the report is lodged with the Scottish Government's Centre of Expertise (CoE) for Programme, Policy and Project Delivery so that it can identify and share the generic lessons learned from Gateway Reviews. The CoE will copy a summary of the report recommendations to the Scottish Government's Accountable Officer, and where appropriate, to the Organisation's Accountable Officer where the review has been conducted on behalf of one of the Scottish Government's Agencies, NDPBs or Health Sector organisations.

7.4 The CoE will provide a copy of the report to Review Team Members involved in any subsequent review as part of the preparatory documentation needed for Planning Meetings.

7.5 Any other request for copies of the Gateway Report will be directed to the SRO.

Appendix A - Purpose of a Gateway Review 2: Delivery Strategy

- Confirm the Outline Business Case now the project is fully defined
- Confirm that the objectives and desired outputs of the project are still aligned with the programme to which it contributes
- Ensure that the delivery strategy is robust and appropriate
- Ensure that the project's plan through to completion is appropriately detailed and realistic, including any contract management strategy
- Ensure that the project controls and organisation are defined, financial controls are in place and the resources are available
- Confirm funding availability for the whole project
- Confirm that the development and delivery approach and mechanisms are still appropriate and manageable
- If appropriate, check that the supplier market capability and track record are fully understood (or existing supplier's capability and performance), and that there will be an adequate competitive response from the market to the requirement
- Confirm that the project will facilitate good client/supplier relationships in accordance with government initiatives such as Achieving Excellence in Construction
- For a procurement project, confirm that there is an appropriate procurement plan in place that will ensure compliance with legal requirements and all applicable EU rules, while meeting the project's objectives and keeping procurement timescales to a minimum
- Confirm that appropriate project performance measures and tools are being used
- Confirm that there are plans for risk management, issue management (business and technical) and that these plans will be shared with suppliers and/or delivery partners
- Confirm that quality procedures have been applied consistently since the previous Review
- For IT-enabled projects, confirm compliance with IT and information security requirements, and IT standards
- For construction projects, confirm compliance with health and safety and sustainability requirements
- Confirm that internal organisational resources and capabilities will be available as required for future phases of the project
- Confirm that the stakeholders support the project and are committed to its success
- Evaluation of actions taken to implement recommendations made in any earlier assessment of deliverability.

Appendix B - Summary of Recommendations

Ref No.	Report Section	Recommendation	Status (R.A.G.)
R1	**Business case and stakeholders**	**The project should maintain the high level of communications with internal stakeholders.**	**G**
R2	**Business case and stakeholders**	**The project should develop a more detailed benefits management plan.**	**A**
R3	**Risk Management**	**The project should ensure all members of the team understand the risk management process.**	**G**
R4	**Readiness for next phase – investment decision**	**The project should consider a more integrated project structure.**	**G**
R5	**Readiness for next phase – investment decision**	**The project should consider the appointment of a deputy Project Director to cope with the additional workload of future project phases and enhance the experience and capability within the GG&C Board.**	**G**

Each recommendation has been given a Red, Amber or Green status. The definition of each status is as follows:-

RED - Critical for immediate action, i.e. to achieve success the project should take action immediately to address the following recommendations:

AMBER - Critical before next Review, i.e. the project should go forward with actions on the following recommendations to be carried out before the next Gateway Review of the project:

GREEN - Potential Improvements, i.e. the project is on target to succeed but may benefit from uptake of the following recommendations.

Appendix C - Review Team and Interviewees

Review Team:

Review Team Leader:	William Harrod
Review Team Members:	Bert Niven
	John McBeath

List of Interviewees:

Name	Organisation/Role
Robert Calderwood	Chief Operating Officer – Acute Services Division
Jim Hackett / David Hall	Project Director – Currie and Brown Executive Project Manager – Currie and Brown
Peter Gallagher/ Alan McCubbin	Director of Finance – Acute Services/ Head of Finance – Capital Planning and procurement
Helen Byrne Alan Seabourne	Director of Acute Services Strategy, implementation and Planning (SRO) Project Director – New South Glasgow
Claire Phillips	Project Director - Partnership UK
Rhona Harper/ Juliette Kennedy Mark Baird	Shepherd and Wedderburn Shepherd and Wedderburn Currie and Brown
Jane Grant	Director of Surgery and Anaesthetics
Mairi Macleod	Project Manager – New Children's Hospital
Anne McPherson	Associate Director of HR (Acute Services)
Heather Griffin	Project Manager – New Adult Hospital
Peter Moir	Head of Major Capital Plans
Mike Baxter	Deputy Director of Property and Planning – Scottish Government
Dr Phil Munro	Emergency Medical Consultant (Adults)

Greater Glasgow and Clyde
New South Glasgow Hospitals (NSGH) Project

Evaluation Process Workshop
25th August 2009

Evaluation Workshop

NHS Greater Glasgow and Clyde

Agenda

- Legal Context
- Appointment Criteria
- Evaluation Structure
- Evaluation Programme
- Evaluation Process
- Qualitative Scoring
- Evaluation Team Deliverables
- Do's & Do not's

Legal Context

- **General overarching obligations of the Board**
  - to treat bidders equally
  - to treat bidders without discrimination
  - to act in a transparent manner
  - to act in a proportionate manner

- **Remember obligation of Confidentiality to Bidders**

Legal Context

- **If you have questions...**
- ***What you can do***
  - Clarify, fine tune or request additional information
- ***What you can't do***
  - Change the basic features of the bid or the Invitation to Submit Final Bids when those variations are likely to distort competition or have a discriminatory effect.

Legal Context

- **Basis of Contract Award**
  - Most Economically Advantageous Tender ("MEAT") - as determined by the criteria set out in the tender documents.
  - You must stick rigidly to the process you have set for yourself
- **Risk of Challenge**
  - Awareness of risk
  - Increasing numbers of litigations
- **Freedom of Information**

Appointment Criteria

NHS Greater Glasgow and Clyde

"Value For Money / Most Economically Advantageous Tender"

- How is this determined?
- Combination of Qualitative Scoring and Expected Price
- Point's score divided by Price = MEAT Score
- Highest MEAT score Wins
- Subject to affordability test

Evaluation Structure

- Four Groups undertaking selective evaluation
  - Design
  - Logistics
  - Laboratories
  - Commercial

- Commercial Group Final Overview / Challenge / Compliance

Design Group

Alan Seabourne
Alex McIntyre
Annette Rankin
Fiona McCluskey
Heather Griffin
Hugh McDerment
Mairi Macleod
Mary Ann Kane
Morgan Jamieson
Peter Moir
Stephen Gallacher
Mark McAllister
Frances Wrath

David Hall (Lead)
Graham Annandale
Harry Smith
Iain Buchan
John Bushfield
Robert Menzies
Susan Logan
Mark Baird

Logistics Group

Alan Seabourne
Alex McIntyre
Frances Wrath
John Green
Peter Moir

David Hall (Lead)
Mark Baird

Laboratories Group

Alan McCubbin
Alan Seabourne
Alex McIntyre
Annette Rankin
Frances Wrath
Hugh McDerment
Jim Crombie (Lead)
Mary Ann Kane
Peter Moir
Dr Rachel Green
Margaret Burgoyne
Douglas Ross
Graham Annandale
Neil Robson
Raj Deb
Stewart McKechnie

Commercial Group

Alan McCubbin
Alan Seabourne
Alex McIntyre
Peter Gallagher
Peter Moir
Gordon Beattie (Board Observer)
Douglas Ross (Lead)
Jim Hackett
Juliet Haldane
Michael McVeigh
Simon Fraser

Group Remits

- Individual Groups
  - Carry out analysis of all information for their groupings provided by the Bidders and seek any clarifications regarding any missing information
  - Complete a detailed review and initial evaluation (by consensus agreement) of each submitted bid (as in ITPD Volume 3) and compile summary of bid compliance with expected deliverables
  - Write up a detailed evaluation report on all aspects of their work stream.

Group Remits

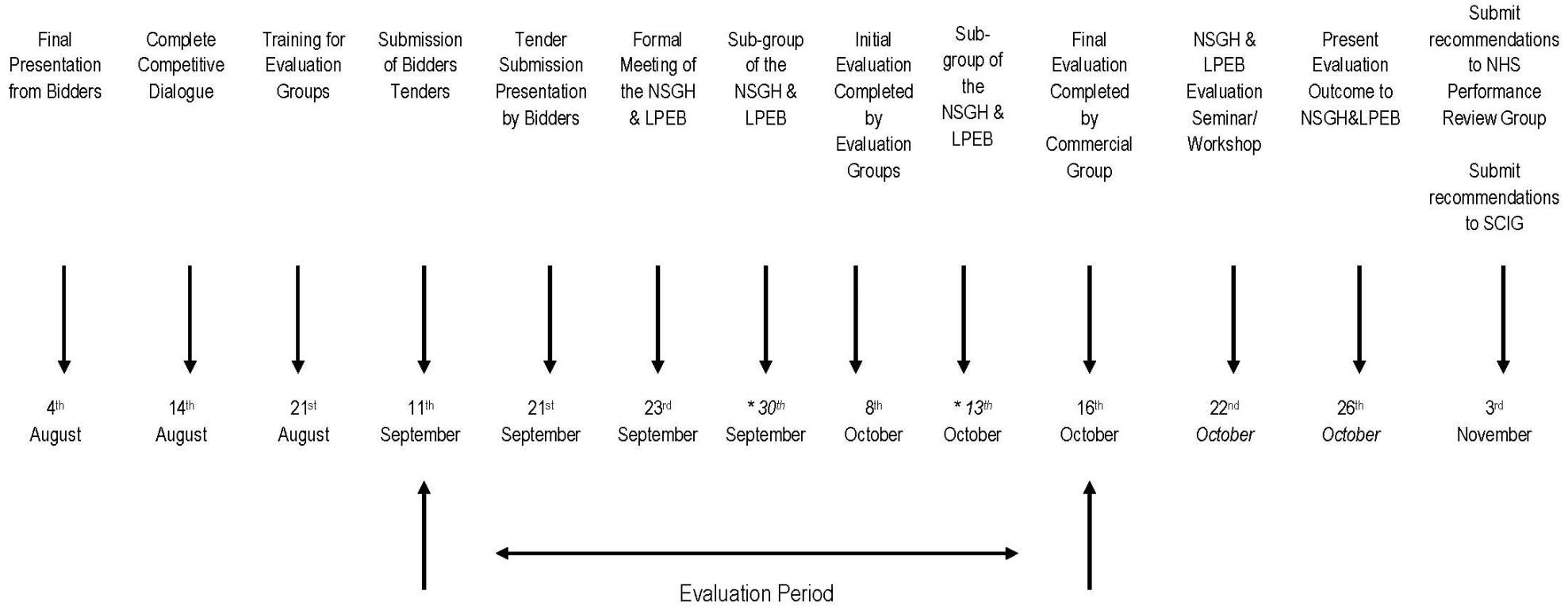
- Commercial Group
  - Carry out final evaluation review of all bid submissions (input from the evaluation group leads) and conclude the evaluation scoring assessment (as in ITPD Volume 3).
  - Determine ranking of each bid
  - Write up detailed summary evaluation report of all aspects of the evaluation of the bids
  - Present evaluation report to the NSGH&LPB workshop/seminar

[Note: order of Commercial topics to be considered for Board agendas on CD]

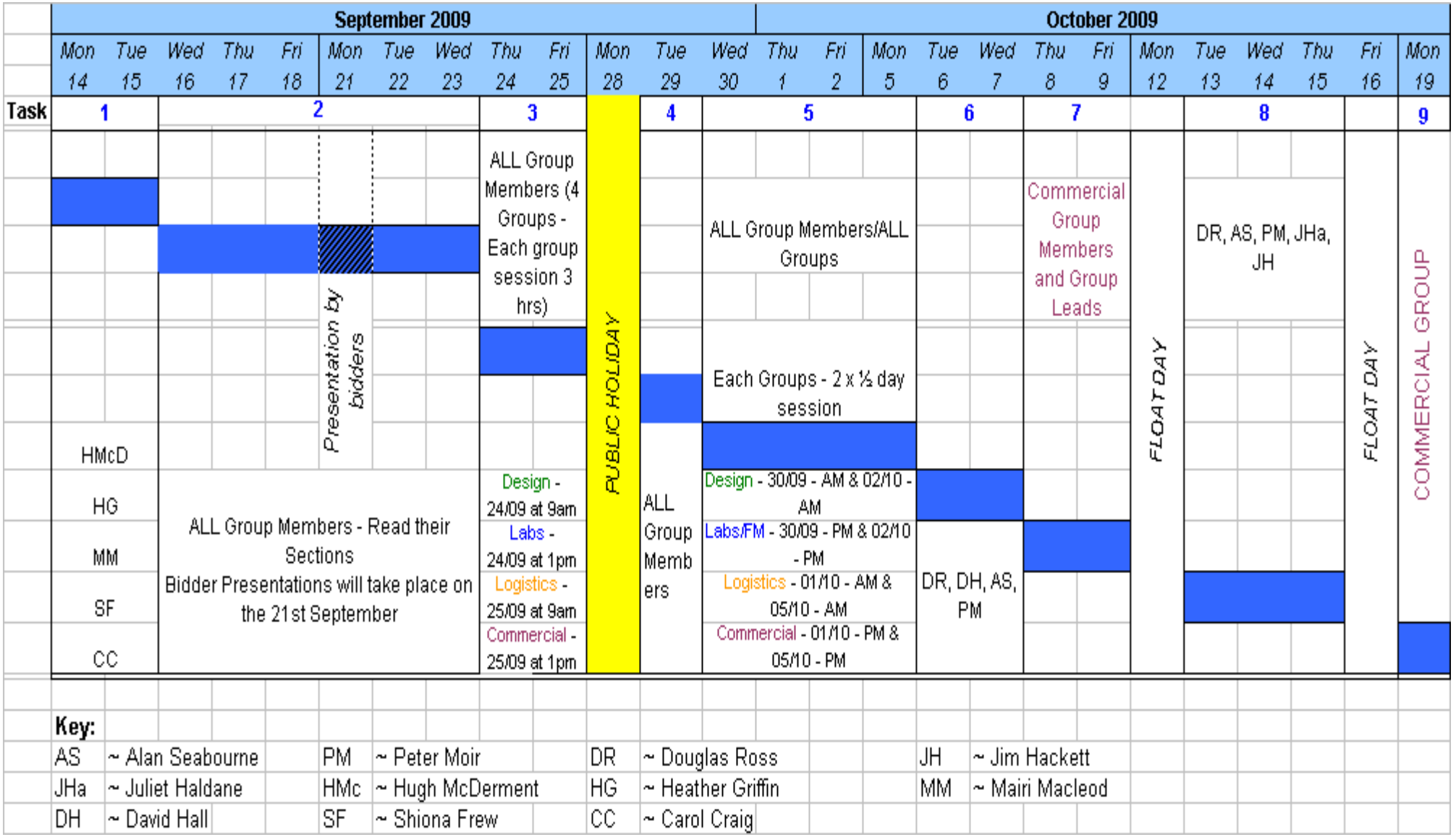
Group Remits

- New South Glasgow Hospitals & Labs Project Executive Board
  - Receive and consider the recommendation from the Commercial Group and make a decision on the successful bidder to go forward as the project's design and construction partner.
  - Make formal recommendation to NHS Greater Glasgow & Clyde Board Performance Review Group.

Evaluation Programme



Evaluation Programme



Key:

AS	~ Alan Seabourne	PM	~ Peter Moir	DR	~ Douglas Ross	JH	~ Jim Hackett
JHa	~ Juliet Haldane	HMc	~ Hugh McDerment	HG	~ Heather Griffin	MM	~ Mairi Macleod
DH	~ David Hall	SF	~ Shiona Frew	CC	~ Carol Craig		

Evaluation Process

- Following receipt of the tenders for the works on September 11th 2009, the evaluation groups will commence the initial evaluation process.
- The whole evaluation process will take approximately 5 weeks and will conclude on the 16th October 2009.

Evaluation Process

- The main parts of the evaluation process are:
  - Check all information is complete (Request missing information if required);
  - Evaluation groups consider all tender information for their groupings;
  - Bidders attend evaluation meeting to present their proposals and answer any questions from evaluation groups
  - The evaluation groups carry out their initial evaluation of their respective sections of the tenders and complete an initial scoring in line with Volume 3, appendix A of the ITPD
  - If required - evaluation group leads to meet with a sub-group of the New South Glasgow Hospitals and Labs Project Executive Board (NSGH&LPEB) to provide information about the progress of the evaluation of tenders and allow them to request more detail on any particular aspects of that process.

Qualitative Scoring

Greater Glasgow and Clyde

ITPD Evaluation Criteria	Individual Weighting	Technical Weighting
DESIGN	**550**	**50**
Space	**20**	
The design should achieve appropriate clinical space standards as required by the ITPD Schedule of	10	
The circulation, communication & plant space should be adequate and optimised	10	
Drawing information:-	**250**	
1:500 scale Masterplan proposals	30	
1:500 departmental relationship drawings for all levels indicating functional relationships & main circulation routes	45	
1:200 departmental layouts reflect the required space standards and functionality	40	
1:200 departmental drawing for Accident & Energency Department, fully Annotated	10	
1:200 departmental drawing for Adult Theatres Department, fully Annotated	10	
1:200 departmental drawing for Adult Ward, fully annotated	10	
1:200 departmental drawing for Childrens Ward, fully annotated	10	
1:200 departmental drawing for Childrens A&E, fully annotated	10	
1:50 room layout and wall elevations fully developed	10	
1:200 Elevations – incorporating external signage proposals	5	
1:200 Exemplar sections	5	
3D images / perspective (internal & external) indicating the following:-		
▪ Architectural vision – space, height, form, composition, scale, character and use of materials		
▪ Hospital Main Entrance / atrium / public space proposals / visuals	20	
1:500 site hard & soft landscaping proposals indicating:-		
▪ Soft landscaping strategy		
▪ Hard landscaping strategy		
▪ Car Parking arrangements with distribution of spaces and use identified		
▪ Areas of differing Carriageway Construction		
▪ Road, footway and cycle way geometry		
▪ Indicative Signalised layouts at external roads		
▪ Retention / protection of existing trees		
▪ Incorporation of art		
▪ Special features		
▪ Courtyards	10	
Finishes Schedule for 11 Departments, and key circulation & communication routes, and main entrances	10	
Door & ironmongery Schedule for 11 Departments, key circulation & communication routes, and main entrances	10	
Roof level: Typical layout indicating structure, including helipad (Acute Adults & Childrens)	5	
Architectural design strategy statement in support of drawing information	5	
Wayfinding strategy	5	

Qualitative Scoring

ITPD Evaluation Criteria	Individual Weighting	Technical Weighting
Design Strategy	**155**	
Acoustic Strategy & Report	5	
Arts Strategy	5	
Fire engineering design strategy including drawings	5	
Structural Engineering design strategy including outline design drawings demonstrating structural philosophy	5	
Drainage design strategy including 1:1250 (or greater) plans showing drainage provision in support of SUDS and Drainage Strategy1:500 scale plans showing:-		
▪ Layout of roads and buildings		
Layout of sewers, outfalls, underground storage, and SUDS features	5	
Main incoming utilities design / connection strategy including Schematic for Main Services distribution	5	
Water Services Strategy including Hot & Cold Water Services Schematic, Filtered Water Schematic and Renal Water Schematic	5	
Heating design strategy including MTHW Schematic & LTHW Schematic	10	
Ventilation & air treatment design strategy including Schematic drawings	10	
Mains and Sub-mains power distribution design strategy including MV Power Schematic and LV Power Schematic	10	
Lighting design strategy	10	
Lift Engineering design strategy	10	
Communication design strategy	5	
Protective systems design strategy including Sprinklers schematic and Fire alarm & damper controls	5	
Medical gases design strategy including schematic drawings	5	
Pneumatic tube system design strategy including schematic drawings	5	
Plant room design strategy	5	
Control systems including BMS schematic	5	
Helipad M&E services design strategy	5	
Maintenance & major plant replacement strategy	35	
Sustainability	**75**	
Sustainable design statement	25	
BREEAM scoring schedule	25	
Energy strategy including approach to renewables, sustainability	25	
AEDET Review	**50**	
Overall AEDET review score	50	
Design Score	**550**	**50**

Qualitative Scoring

ITPD Evaluation Criteria	Individual Weighting	Technical Weighting
DELIVERABILITY AND APPROACH	**275**	**30**
Project management:	**90**	
Structure & approach	20	
Site Management Team;	5	
Design Team;	5	
Community Engagement	60	
Construction Approach:	**20**	
There should be minimal impact on service delivery;	10	
The construction exploits any innovation benefits from standardisation and prefabrication;	10	
Site Management:	**80**	
Temporary Accommodation proposals	15	
Logistics proposals	10	
Traffic management	10	
Car Parking	10	
Staff Movement	5	
Site Security & Safety	10	
Site interfaces	10	
Waste Management	10	
Programme:	**40**	
Master programme	5	
Stage 1 Laboratory programme	10	
Stage 2 FBC sub programme	10	
Stage 3 Construction programme	10	
Stage 3A Hard & landscaping completion programme	5	
Commissioning & Handover	**45**	
▪ Commissioning plans, including Building Services testing & commissioning	15	
▪ Handover process	15	
▪ Extended defects requirement	15	
Logistics Score	**275**	**30**

Qualitative Scoring

ITPD Evaluation Criteria	Individual Weighting	Commercial Weighting
COMMERCIAL	**175**	**20**
Contract:	**25**	
Compliance with Contract Conditions	5	
Insurances	5	
Performance Bond	10	
Collateral Warranties	5	
Pricing	**150**	
Statement on Commercial proposals, operation of Target Pricing, Open Book audit	5	
Target / Maximum Price assessment	20	
Priced Risk Register & Risk Allocation	55	
Stage 1 Laboratory Design & Construction detailed elemental cost & resource plans	5	
Stage 1 Laboratory Design & Construction Priced Activity Schedules, Cashflow & Payment Proposals	5	
Stage 2 FBC Stage Priced Activity Schedules including supporting detailed costed resource plan,	10	
Stage 3 Adult / Childrens / Site Works Design & Construction detailed elemental cost & resource plans	5	
Stage 3 Adult / Childrens / Site Works Design & Construction Priced Activity Schedules, Cashflow &	5	
Project Whole Life Cycle Cost Plan	40	
Total Commercial Score	**175**	**20**

Qualitative Scoring

- Scoring Bid Submissions against Compliance with Employers Requirements
- Scoring matrix

Scores	Value	Description
Excellent	9 - 10	Performs significantly well on all key factors and offers substantial additional benefits
Good	7 - 8	Performs well on all key factors and offers some additional benefits
Adequate	5 - 6	Passes thresholds on all key factors but offers few additional benefits
Poor	3 - 4	Fails to meet threshold on some key factors
Very Poor	2	Fails to meet threshold on majority of key factors
Unacceptable	1	Fails to meet threshold on all key factors

- Scoring will be by Concensus not individual with averages

Qualitative Scoring

- Maximum Available Points – 392,500
- Exemplar baseline score 6 on each criteria – total points 235,500
- Compare & Score bids based on Exemplar Compliance
- How do you measure score?

Qualitative Scoring

ID Ref	Bid Deliverable	Key Performance Criteria
2.2	1:500 departmental relationship drawings for all levels indicating functional relationships & main circulation routes	▪Clinical adjacency matrix 1,2,3 requirements achieved ▪Functional relationship flows acceptable ▪Circulation routes clear ▪Relationships fit with way finding strategy

- Does the Bid Submission meet the Adjacency Matrix requirements?
- If Yes – score 6 (as good as Exemplar)
- If Yes and beats requirements - score >6
- How far above 6? Justify on basis of benefits differences may make (group discussion)
- If No – score <6
- How far below 6? Justify on basis of impact of non compliance (group discussion)

Qualitative Scoring

Greater Glasgow and Clyde

ID Ref	Bid Deliverable	Key Performance Criteria
2.6	1:200 departmental drawing for Adult Ward, fully annotated to indicate ▪floor finishes ▪ceiling finishes ▪wall finishes ▪door types & ironmongery ▪wall protection ▪Lighting proposals ▪CCTV locations ▪door entry locations	▪Finishes comply with SHTM requirements ▪Robust finishes ▪HAI issues addressed ▪Cleaning impacts ▪Maintenance – access to ceiling space ▪Door types and ironmongery robust and type reflects function ▪Adequate wall protection ▪Lighting meets HTM and appropriate for function ▪Security requirements addressed ▪Door entry fits with way finding strategy

- Does the Bid Submission meet the Employers Requirements?
- If Yes – score 6
- If Yes and beats requirements - score >6
- How far above 6? Justify on basis of benefits differences may make (group discussion)
- If No – score <6
- How far below 6? Justify on basis of impact of non compliance (group discussion)

Qualitative Scoring

ID Ref	Bid Deliverable	Key Performance Criteria
2.13	1:200 Exemplar sections indicating the following:- ▪Floor to floor heights ▪Floor to ceiling heights ▪Architectural vision – space, height, form, composition, scale, character and use of materials	▪ER's minimum Floor to Ceiling height achieved ▪Floor to Floor heights create adequate service zone ▪Sections create adequate environment

- Does the Bid Submission meet the Employers Requirements?
- If Yes – score 6 (as good as Exemplar)
- If Yes and beats requirements - score >6
- How far above 6? Justify on basis of benefits differences may make (group discussion)
- If No – score <6
- How far below 6? Justify on basis of impact of non compliance (group discussion)

Qualitative Scoring

ID Ref	Bid Deliverable	Key Performance Criteria
12.6	Priced Risk Register & Risk Allocation ▪Stage 1 New Labs ▪Stage 2 FBC Design ▪Stage 3 Design & Construction New Hospitals ▪Stage 3A Hard & Soft Landscaping Completion	▪Risks generally reflect ITPD CD Session discussions ▪Risk descriptions clear ▪Risk ownership clear ▪Ownership fits with balanced risk share ▪Mitigation strategies clear ▪Risk approach fits with overall Target Price ▪Risk priced clearly

- Does the Bid Submission meet the Employers Requirements?
- If Yes – score 6
- If Yes and beats requirements - score >6
- How far above 6? Justification required (group discussion)
- If No – score <6
- How far below 6? Justify on basis of variance in non compliance (group discussion)

Qualitative Scoring

ID Ref	Bid Deliverable	Key Performance Criteria
12.8	Whole Life Cycle Cost Estimate for 30 year period detailing, replacement costs & timescales, planned & preventative maintenance, energy usage including:- ▪Overall Project Summary ▪Stage 1 New Labs ▪Stage 3 Construction New Hospitals ▪Stage 3A Hard & Soft Landscaping Completion Energy costs assumptions should be clearly stated	▪Overall cost compared with benchmark data ▪Detailed costs robust, accurately prepared and reflect bid components ▪Replacement timescales robust and reflect selected equipment / products ▪Maintenance regime robust and reflects selected equipment / products ▪Energy useage / costs reflect targets in ER's

- Does the Bid Submission meet the Employers Requirements?
- If Yes – score 6
- If Yes and beats requirements - score >6
- How far above 6? Justification required (group discussion)
- If No – score <6
- How far below 6? Justify on basis of variance in non compliance (group discussion)

Evaluation Team Deliverables

- Evaluation Report
  - General Summary of Bids
  - Completed scoring matrix
  - Commentary on reason for scoring

ITPD Evaluation Criteria	Individual Weighting	Technical Weighting		Commentary
DESIGN	550	50		
Space	20			
The design should achieve appropriate clinical space standards as required by the ITPD Schedule of	10	6	3000	?????
The circulation, communication & plant space should be adequate and optimised	10	6	3000	?????

Evaluation Team Deliverables

- Do's
  - treat bidders equally
  - treat bidders without discrimination
  - be clear on content of Employers Requirements
  - be clear on reasons for scoring
  - record reasons
  - highlight discrepancies / caveats / assumptions
  - be available to meet programme demands
- Do Not's
  - no pre-conceived ideas
  - no email chatter

Summary

gathering evidence to tell unsuccessful Bidders

Greater Glasgow and Clyde
New South Glasgow Hospitals (NSGH) Project

Evaluation Process Workshop
25th August 2009

From: Ross Ballingall [redacted]
Sent: 12 October 2009 17:06
To: Frew, Shiona; Jane Williamson
Cc: Paul Serkis; David.Hall[redacted]; Mark Baird; Sophie Rainey
Subject: RE: NSGH - Technical Clarification No 4
Attachments: clarification4-6.0.pdf; clarification4 - Appendix B-14.pdf; Backup of Bidder 1 (Brookfield) Technical_Clarification 4 (07Oct09) - final.wbk; NSGH - Bidder 1 - TC#4 - Appendix A_NA Response.xls; NSGH - Bidder 1 - TC_4 - Appendix_B final.doc

Shiona

Please find attached our response to Technical Clarification No 4 as requested.

Regards

Ross

From: Frew, Shiona [redacted]
Sent: Wed 07/10/2009 17:04
To: Jane Williamson
Cc: Paul Serkis; Ross Ballingall; David.Hall[redacted]; Mark Baird; Frew, Shiona; Sophie Rainey
Subject: NSGH - Technical Clarification No 4

Dear All

Please find attached the Board's Technical Clarification Nr 4. A response to this clarification is requested by close of business on Monday 12th October 2009.

Many thanks

Regards

Shiona

Shiona Frew
PA to Project Director
New South Glasgow Hospitals Project
St Andrew's House
80 Queen Elizabeth Avenue
Hillington
Glasgow
G52 4NQ
T: [redacted]
F: [redacted]

content to any other person.

All messages passing through this gateway are checked for viruses, but we strongly recommend that you check for viruses using your own virus scanner as NHS Greater Glasgow & Clyde will not take responsibility for any damage caused as a result of virus infection.

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Message protected by MailControl: e-mail anti-virus, anti-spam and content filtering.
http://www.mailcontrol.com

markwik 21 brassware options features & benefits

Markwik 21 electronic thermostatic mixer with time flow sensor

A4555AA

- Flow activated by 'no-touch' hand sensor.
- Swipe hand to start, flow time can be pre-programmed.
- A second swipe shuts off the mixer sooner.
- New 'insulate' mixer body.
- Installation (purging) kit available.
- 200mm inlet centres.

Usage
General medical and nursing procedures, for use on scrub-up troughs in surgical areas.

Markwik 21 electronic thermostatic mixer with proximity sensor

A4554AA

- Flow activated by 'no-touch' proximity sensor.
- User's presence activates mixer, flow time can be pre-programmed.
- User's departure shuts off the mixer sooner.
- New 'insulate' mixer body.
- Installation (purging) kit available.
- 200mm inlet centres.

Usage
General medical and nursing procedures, for use on clinical basins.

Markwik 21 thermostatic sequential lever mixer

A4553AA

- Single lever controls flow and temperature.
- New 'insulate' mixer body.
- Installation (purging) kit available.
- 200mm inlet centres.

Usage
General medical and nursing procedures, for use on basins in dirty and clean utility areas, consulting/treatment rooms and wards.

Also suitable for use on clinical basins.

A52523997

Markwik 21 Product highlights

Example shown: Markwik 21 thermostatic sequential mixer

1 Inbuilt thermal disinfection
The mixer can be thoroughly cleaned using a unique bridging tube.

2 Integral thermostat
The preferred design of HTM04, prohibits a dead-leg of mixed water for improved hygiene.

3 Sequential operation
Specified by HTM64 a sequential lever provides more precise control of flow and temperature.

4 Horizontal spout
The design of the spout allows potentially bacteria harbouring water to drain and complies with HFN30.

5 Easy to service
Markwik 21s can be inspected and serviced from the front, ISO valves, strainers, filters and check valves can all be easily accessed.

6 Choice
Available with sequential lever, timed flow sensor or proximity sensor options.

For further information on any of our products please call our

technical helpline
0870 122 8822

Armitage Shanks
Armitage
Rugeley
Staffordshire
WS15 4BT

Tel 01543 490253
Fax 01543 491677

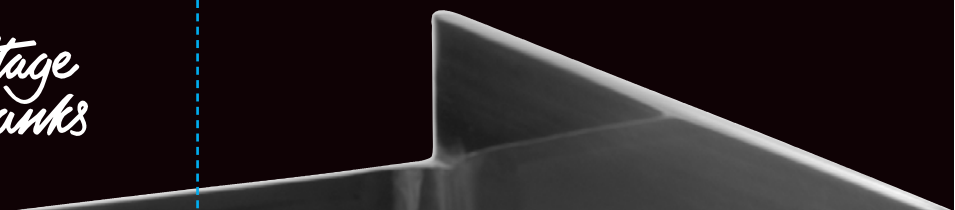
www.thebluebook.co.uk

Armitage Shanks

markwik 21 healthcare mixer solutions... what works and why

introducing insulate technology

Armitage Shanks



markwik 21

Increasingly stringent NHS regulations and an improved awareness of public health issues demand hospital sanitary fittings that achieve the highest level of performance.

Nobody understands these issues better than Armitage Shanks. That's why we introduced the original Markwik thermostatic mixer range in 2005.

At the time the NHS guidelines (HFN30) focused on the need to eliminate 'swan-neck' taps from hospitals. Swan-necks allowed water to remain in the spout after use, providing a possible haven for bacteria. Regulation such as HTM04 required that the mixer's thermostat be incorporated close to the point of discharge. When combined with sequential operation (HTM64) this eliminated a 'dead-leg' of cold water and thereby reduced the risk of legionella.

But that was then. Markwik 21 is now.

Over the last few years the National Health Service has developed the original brief of HFN30, HTM04 and HTM64 and set even higher hygiene and safety targets. In response we have worked with hospital Trusts and their engineers to produce Markwik 21, an improved range of mixers featuring new Insulate Technology.

Why 'Insulate'? In mixers with an integral thermostat at the point of water discharge there is a tendency for the body to become hot during prolonged use. Although Markwik fittings are normally used by hospital staff, they are often located in patient care areas and a formal risk assessment may be necessary. The body of each Markwik 21 mixer is therefore specifically designed to insulate the fitting and keep it's exterior cooler to the touch.

Markwik 21, the thermostatic healthcare mixer perfected.

Armitage Shanks

A52523997

insulate technology, new for markwik 21

These thermal images show the temperature of a Markwik 21 mixer during and after use.

1 Running for just 10 seconds, the mixed (yellow) hot water can be clearly seen.

2 After running for 1 minute thermal emissions have changed very little.

3 Continuously running the mixer for 5 minutes, the body warms slightly.

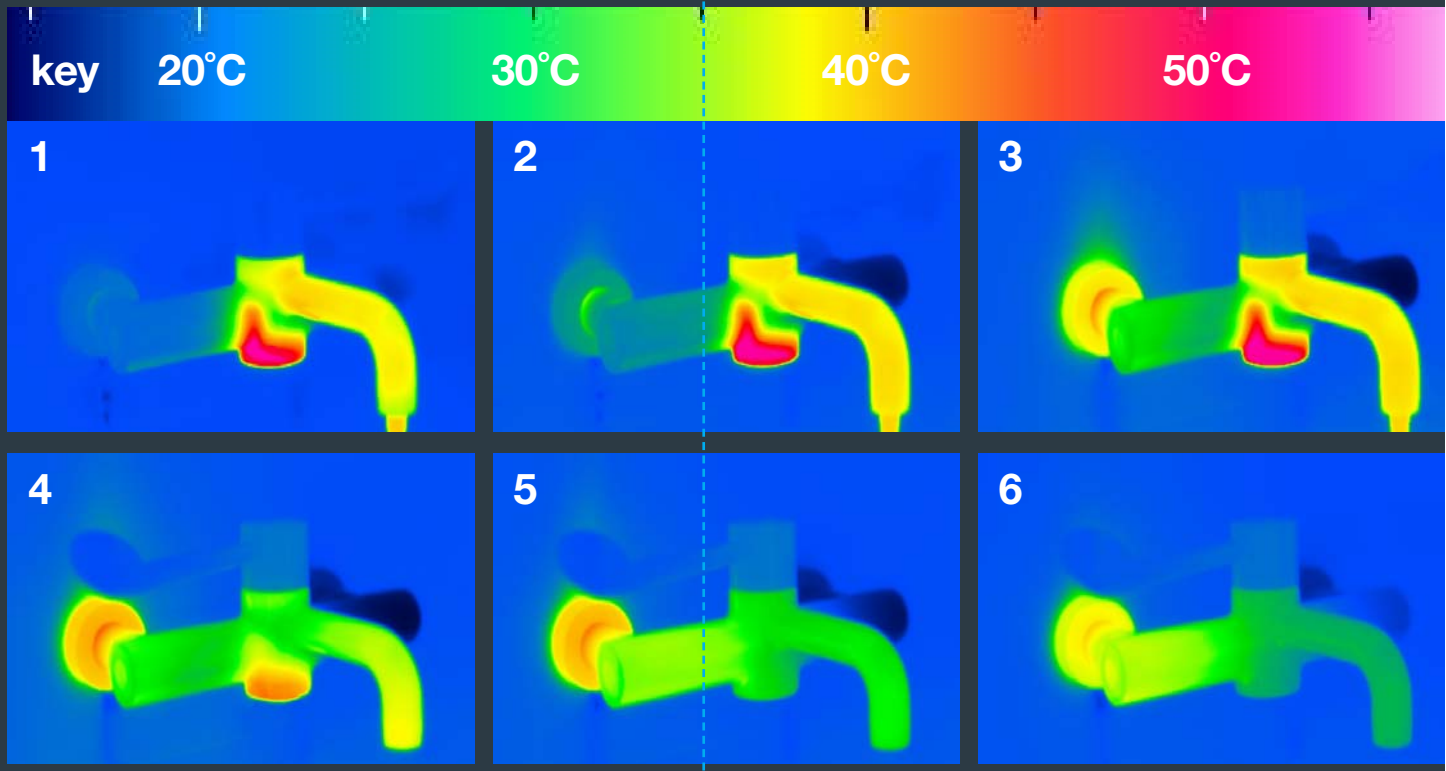
4 After being run for 10 minutes the mixer is turned off. Just 5 seconds later the body can be seen at a safe (green) temperature thanks to Insulate Technology.

5 Only 1 minute later even the 'hot' thermostat (orange in image #4) has cooled considerably.

6 5 minutes after a 10 minute run, the body continues to cool.

Markwik 21
Insulate technology

Example shown: Markwik 21 electronic thermostatic mixer with proximity sensor



Brookfield

CLARIFICATION 4

LED LIGHTING
&
FEATURE LIGHTING

OVERVIEW

It is clear the LED lighting will play a growing part in the healthcare lighting sector and this is evident with the rapid development of LED fittings and applications.

The projection LED engine unit, outlined below, is the first fitting of the latest generation that Brookfield are comfortable to offer as a replacement for conventional task lighting in certain locations.

Brookfield consider that an amount of LED feature lighting will be integrated during detailed design in the atrium space and also as accent lighting for art installations, as appropriate.

Linear LED, IP rated fittings have great benefit for external signage, this can be deployed in a number of ways, including back lit accented lighting.

linear led series

applications

- Architectural features
- Artwork enhancement
- Building beautification
- Landscape lighting

All products in Holophane's LLED Series are manufactured with Luxeon Lighting Network Approval.

CERTIFIED

Holophane linear LED systems utilise the market leading Luxeon high power LEDs from Lumileds, which offer distinct advantages over 5mm LEDs, including superior light output and lumen maintenance. The low lens temperature makes them suitable for use in public areas, where there is a possibility of people touching them. Available in two lengths, with either integral or remote electronic drivers and mounted on adjustable brackets, the linear LED system will enhance the appearance of a multitude of architectural applications.

A52523997

features and benefits

Minimal design
> Complements today's architecture

Robust construction
> Durable
> Suitable for internal and external use

Utilising Luxeon high power LEDs from Lumileds
> Reliable
> Long life
> Higher lumen output than 5mm

LEDs
> Low lens temperature
> Suitable for use in public areas

lamp types included

6 x 1.2W or 2.8W Luxeon LEDs
12 x 1.2W or 2.8W Luxeon LEDs
48 x 1.2W or 2.8W Luxeon LEDs

IP rating

IP68

approvals

Comples with EN60598

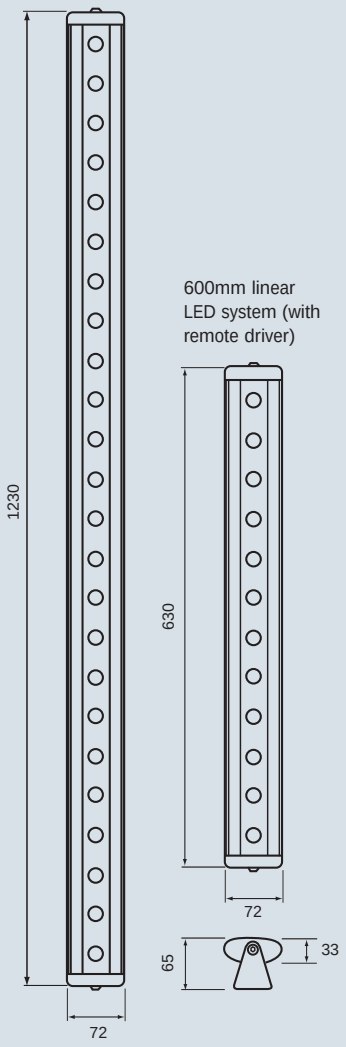
CE

Linear LED system

specification

Linear LED Series

The luminaire shall consist of an anodised aluminium body with a clear polycarbonate window sealed to IP68. The body shall house six, twelve or forty-eight warm white, cool white, blue, green, red or amber 1.2W or 2.8W Luxeon high power LEDs. Luminaires shall be available with RGB DMX512 control utilising individual coloured LEDs or Tri Chip LEDs. Shall be focused by 6, 25, 45 or asymmetrical 25 x 6 degree polycarbonate lenses. The luminaire should be suitable for surface mounting via lockable, fully rotating end supports and be able to accommodate external low voltage or integral mains drivers. Complies with EN60598.



weights & thermal data

Luminaire Length (mm)	Weight (kg)	Min Operating Temperature (˚C)	Max Ambient Temperature (˚C)*
600	2.7	-20	30
1200	5.4	-20	30

*The maximum ambient temperatures stated are for exterior use only.
For interior use deduct 10ºC from the temperature stated

Use this table to determine the quantity of linear modules that can be operated by remote driver option.

power supply	120watt	240watt	480watt
6 LEDs			
@ 350MA	10 units	n/a	n/a
@ 700MA	5 units	10 units	n/a
12 LEDs			
@ 350MZ	5 units	10 units	n/a
@ 700MA	2 units	5 units	10 units
48 LEDs			
@ 350MA	1 unit	2 units	5 units
@ 700MA	n/a	1 unit	2 units

example: 12LEDs @ 350MA running at 240watt = 10units.
Therefore order will be:
1x LLEDS 12WH 06D 350MA 240GB
8x LLEDS 12WH 06D 350MA
1x LLEDS 12WH 06D 350MA END.

For LLED units with integral Driver add:120mm for internal drivers up to 12 LEDs. 240mm for internal drivers up to 48 LEDs (1200mm only)

ordering details : luminaire

Code					
LLEDS	Linear LED series (short body series 600mm long)				
LLEDL	Linear LED series (long body series 1200mm long)				
	Code	**Light Source**			
	.6AM	6 x 1.2 watt Amber LEDs**			
	.6BL	6 x 1.2 watt Blue LEDs**			
	.6GR	6 x 1.2 watt Green LEDs**			
	.6RD	6 x 1.2 watt Red LEDs**			
	.6WH	6 x 1.2 watt White 5000K LEDs**			
	.6WWH	6 x 1.2 watt White 3200K LEDs**			
	.12AM	12 x 1.2 watt Amber LEDs			
	.12BL	12 x 1.2 watt Blue LEDs			
	.12GR	12 x 1.2 watt Green LEDs			
	.12RD	12 x 1.2 watt Red LEDs			
	.12WH	12 x 1.2 watt White 5000K LEDs			
	.12WWH	12 x 1.2 watt White 3200K LEDs			
	.48AM	48 x 1.2 watt Amber LEDs***			
	.48BL	48 x 1.2 watt Blue LEDs***			
	.48GR	48 x 1.2 watt Green LEDs***			
	.48RD	48 x 1.2 watt Red LEDs***			
	.48WH	48 x 1.2 watt White 5000K LEDs***			
	.48WWH	48 x 1.2 watt White 3200K LEDs***			
		Code	**Optics**		
		.06D	6 Degree optic beam angle		
		.25D	25 Degree optic beam angle		
		.45D	45 Degree optic beam angle		
		.256D	25 x 6 Degree optic beam angle		
			Code	**Out Options**	
			.350MA	350MA Lower light output	
			.700MA	700MA Higher light output (increases each LED's power to 2.8W)	
				Code	**Driver Options**
				.INT	Internal driver (supplied with each luminaire)
				.120GB	Remote IP65 gear box (max 120W of LED power load)*
				.240GB	Remote IP65 gear box (max 240W of LED power load)*
				.480GB	Remote IP65 gear box (max 480W of LED power load)*
				.EMB	Extended offset mounting brackets (x2
				.RMB	Rear mounted brackets (x2)
				.END	End of run version (no through wiring)
Example	LLEDL	.48WH	.25D	.700MA	.INT

* A minimum of one remote gear box is required. See power load table on page 4.3 to determine maximum number of luminaires.** Not available for LLEDL. *** Not available for LLEDS

luminaire accessories

order separately for on site installation by others

Code	
LED.ILC	IP68 in-line connector

LED.ILC
IP68 Wiring Connector

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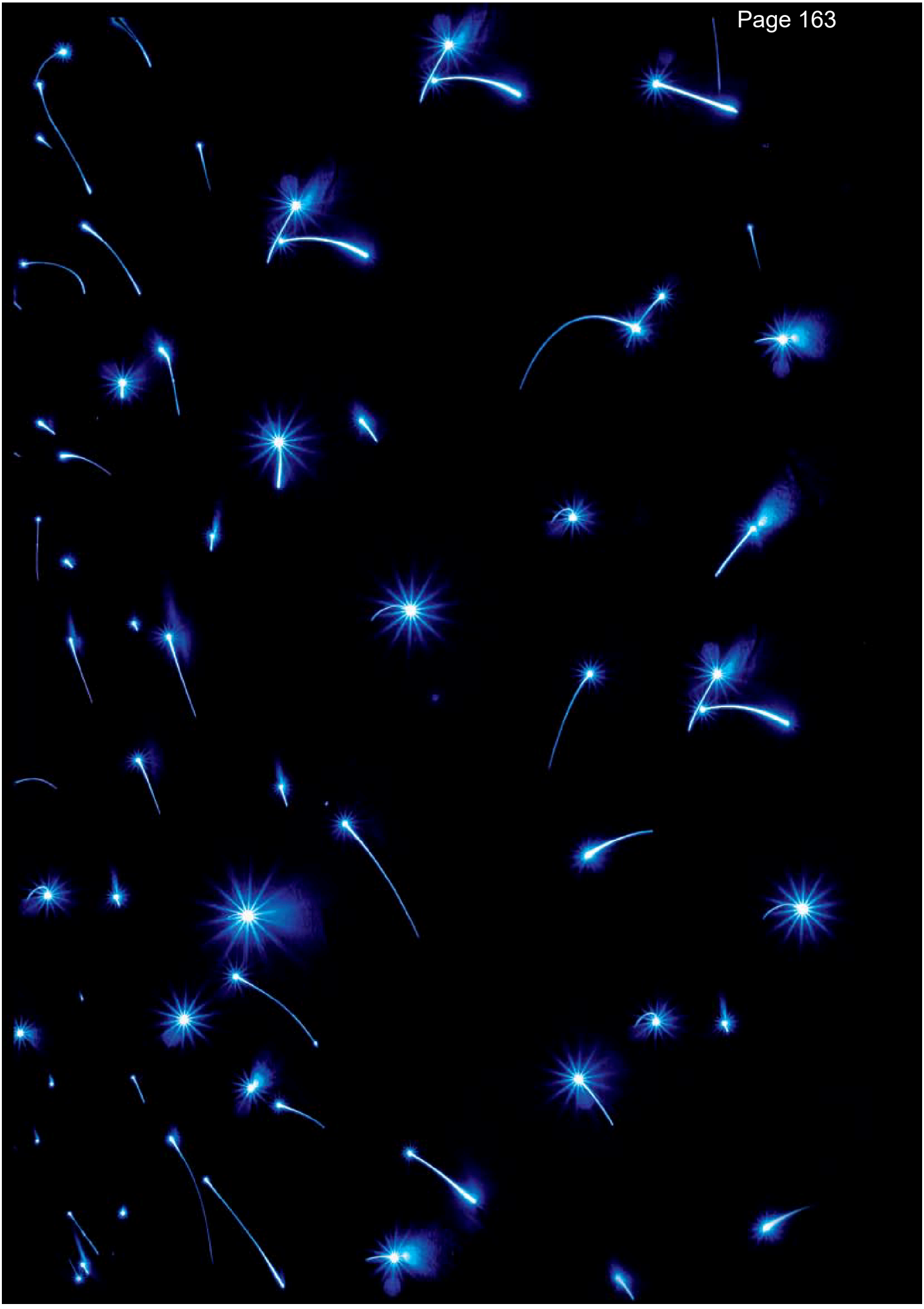
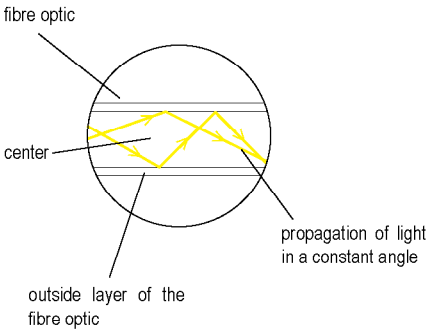


FIBRE & CABLE

Optical fibres are conductors which the light is reflected. They carry more or less light depending on their diameter.



The radius of curvature indicated should be respected, he is the guarantor of good light transmission.

You can mix different sizes and different types of fibre optics in a single common termination.

All FLUX fibre sheathed and sheathed cables may be specified in ERP : The sheathing (LSHF) is self-extinguishing and free of halogen.

UNSHEATED PMMA OPTICAL FIBRE

Use : Unsheathed fibres are used when there is no risk of mechanical damage, and for decoration and for making starred skies.

Lighting features : Optimal luminous output : dimming less than 150dB/km.
No distortion of light, no alteration of colours of light beyond 10m.
The output angle of light is 60 °.

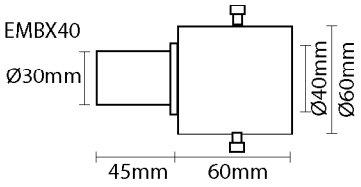
Mechanical features : Fibre optic polymer PMMA (poly-methyl methacrylate).
Small radius of curvature : 5 times the diameter.

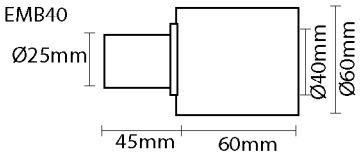
Optical fibres (mono fibre)				
Optical diameter (mm)	0,75	1	1,5	2
Minimum radius of curvature (mm)	3,75	5	7,5	10
Quantity of light transmitted	x1/2	x1	x2	x4
Maximum fibres by common end EMB30, EMB40	500	300	140	70

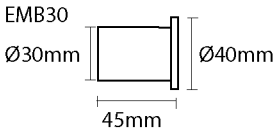
PMMA Optical Fibre unsheathed	
Ø 0,75mm	210075
Ø 1mm	210100
Ø 1,5mm	210150
Ø 2mm	210200

UNSHEATED PMMA OPTICAL FIBRE

COMMON END
(by light generator)







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SHEATED PMMA OPTICAL FIBRE

Use : Sheathed fibres. Sheathing LSHF self-extinguishing and halogen-free.

Lighting features : Optimal luminous output : dimming less than 150dB/km.
No distortion of light, no alteration of colours of light beyond 10m.
The output angle of light is 60 °.

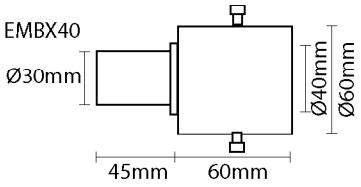
Mechanical features : Fibre optic polymer PMMA (poly-methyl methacrylate). Sheathing LSHF self-extinguishing and halogen-free.
Small radius of curvature : 5 times the diameter.

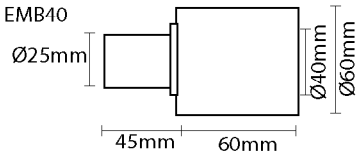
Optical fibres (mono fibre)			
Optical diameter (mm)	1	1,5	2
Sheath outside diameter (mm)	2,3	2,8	3,5
Minimum radius of curvature (mm)	5	7,5	10
Quantity of light transmitted	x1	x2	x4
Maximum fibres by common end EMB30, EMB40	300	140	70

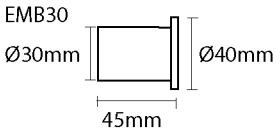
Sheathed PMMA optical fibre	
Ø 1mm	212100
Ø 1,5mm	212150
Ø 2mm	212200

SHEATED PMMA OPTICAL FIBRE

COMMON END
(by light generator)







SHEATED PMMA OPTICAL CABLE

Use : Sheathed cables are formed from fibre optic polymers to high performance of PMMA Ø1mm and are used to transmit large quantity of light.

Lighting features :
Optimal luminous output : dimming less than 150dB/km.
No distortion of light, no alteration of colours of light beyond 10m.
The output angle of light is 60 °.

Mechanical features :
Fibre optic polymer PMMA (poly-methyl methacrylate).
Small radius of curvature : 5 times the diameter.
Self-extinguishing.
Low smoke.
Halogen-free.

Optical cables (multi fibre)				
Optical diameter (mm)	3	4	5	6
Sheath outside diameter (mm)	5,5	6,5	7,5	8
Minimum radius of curvature (mm)	28	33	38	42
Ø 1mm fibres in a cable	7	11	19	25
Maximum cables per common end EMB30, EMB40	40	25	16	12

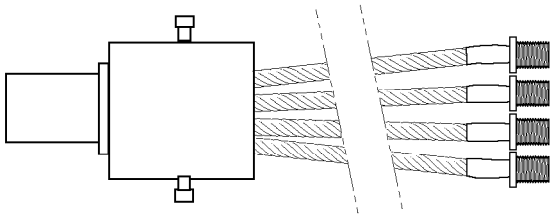
Sheathed PMMA optical cable	
Ø 3mm	212030
Ø 4mm	212040
Ø 5mm	212050
Ø 6mm	212060

Common end	
EMB30 for generator M	255030
EMB40 for generator XM	256030
EMBX40 for generator XP	256100

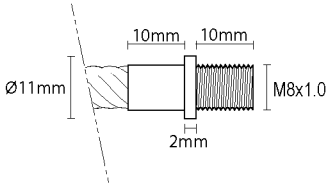
Thread end tip	
FEPMMA3 thread end tip for cable Ø3mm	219030
FEPMMA4 thread end tip for cable Ø4mm	219040
FEPMMA5 thread end tip for cable Ø5mm	219050
FEPMMA6 thread end tip for cable Ø6mm	219060

SHEATED PMMA OPTICAL CABLE

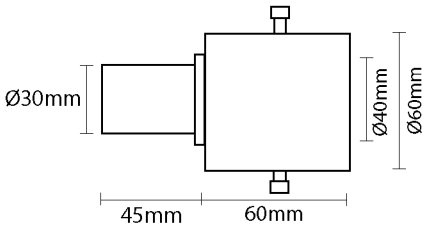
PMMA FIBRE OPTIC HARNESS



THREAD END TIP for cable
diameter 3 to 6mm



COMMON END
EMBX40



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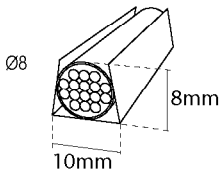
LUMI

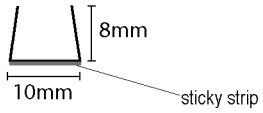
Use :	Sidelight fibre, luminous lines up to maximum 40mt in length. Pool, marker, signs, etc.
Lighting features :	Optical connection : in the generator by a common end polished optical EMB40. Maximum length between 2 generators : 40 mt. Example 14 LUMI up to 2 generators. Light : Numerical aperture : 0,51. Angle of acceptance : 60°.
Mechanical features :	IP68. PMMA multi stands optical fibres (poly-methyl methacrylate) high performance, Ø0,75mm. PVC clear flexible sheat : anti-algae, UV resistance. Can be installed in water. Fixing : direct adhesive or in a clear methacrylate U chanel : LUMIFIX.

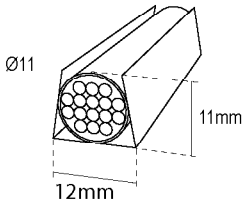
LUMI	
Ø 8mm	200108
Ø 11mm	200111
Ø 14mm	200114

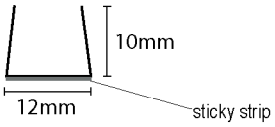
LUMIFIX	
Profile for LUMI Ø8	431008
Profile for LUMI Ø11	431011
Profile for LUMI Ø14	431014

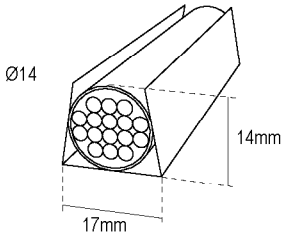
LUMI

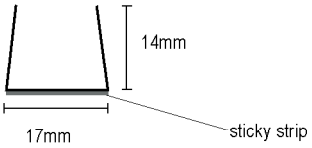


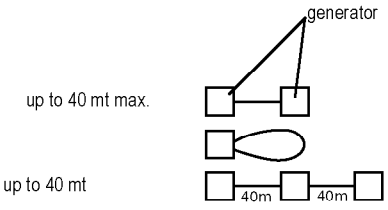












Ø8mm le m.	maximum 2 cables per collector
Ø11mm le m.	
Ø14mm le m.	

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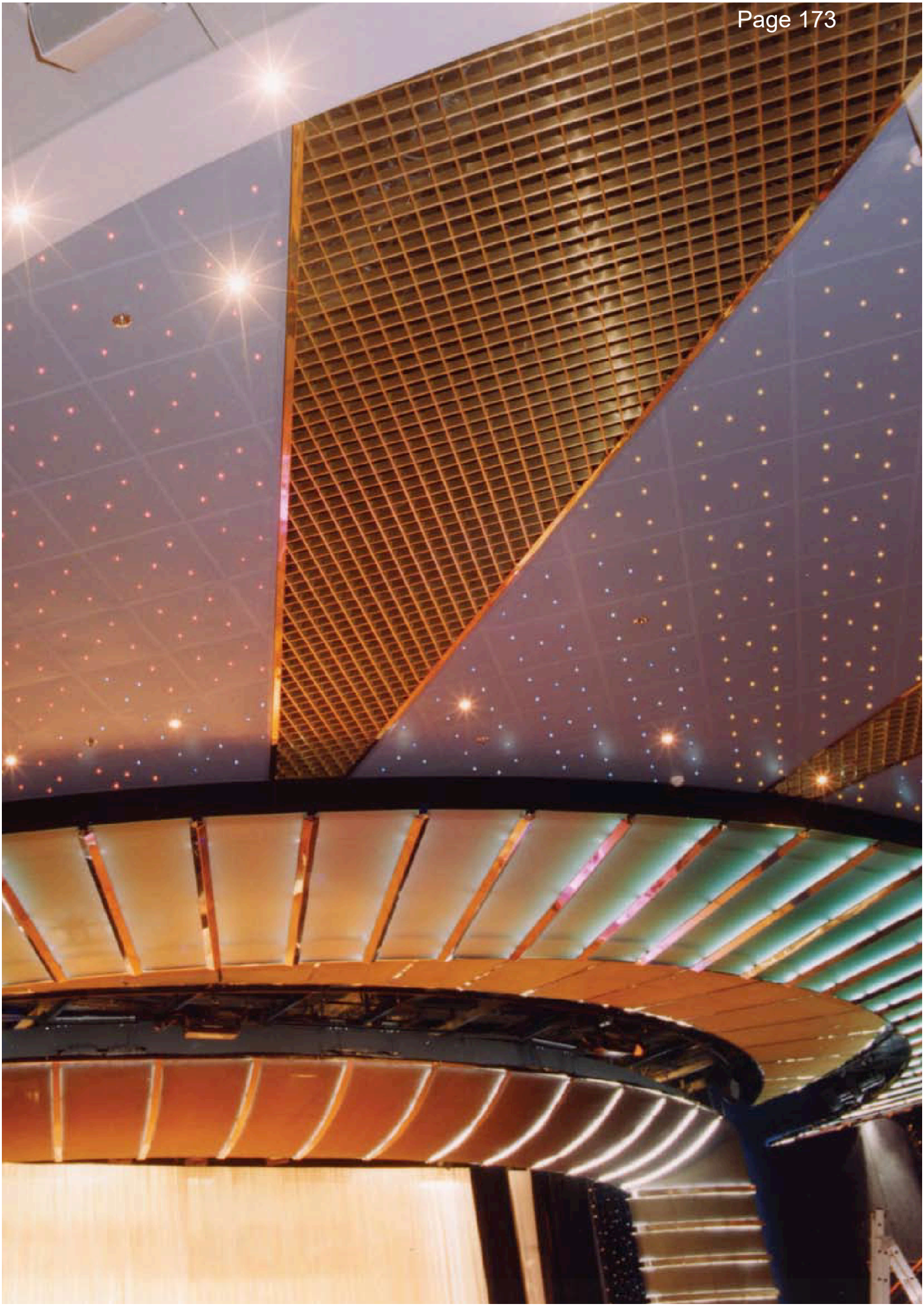
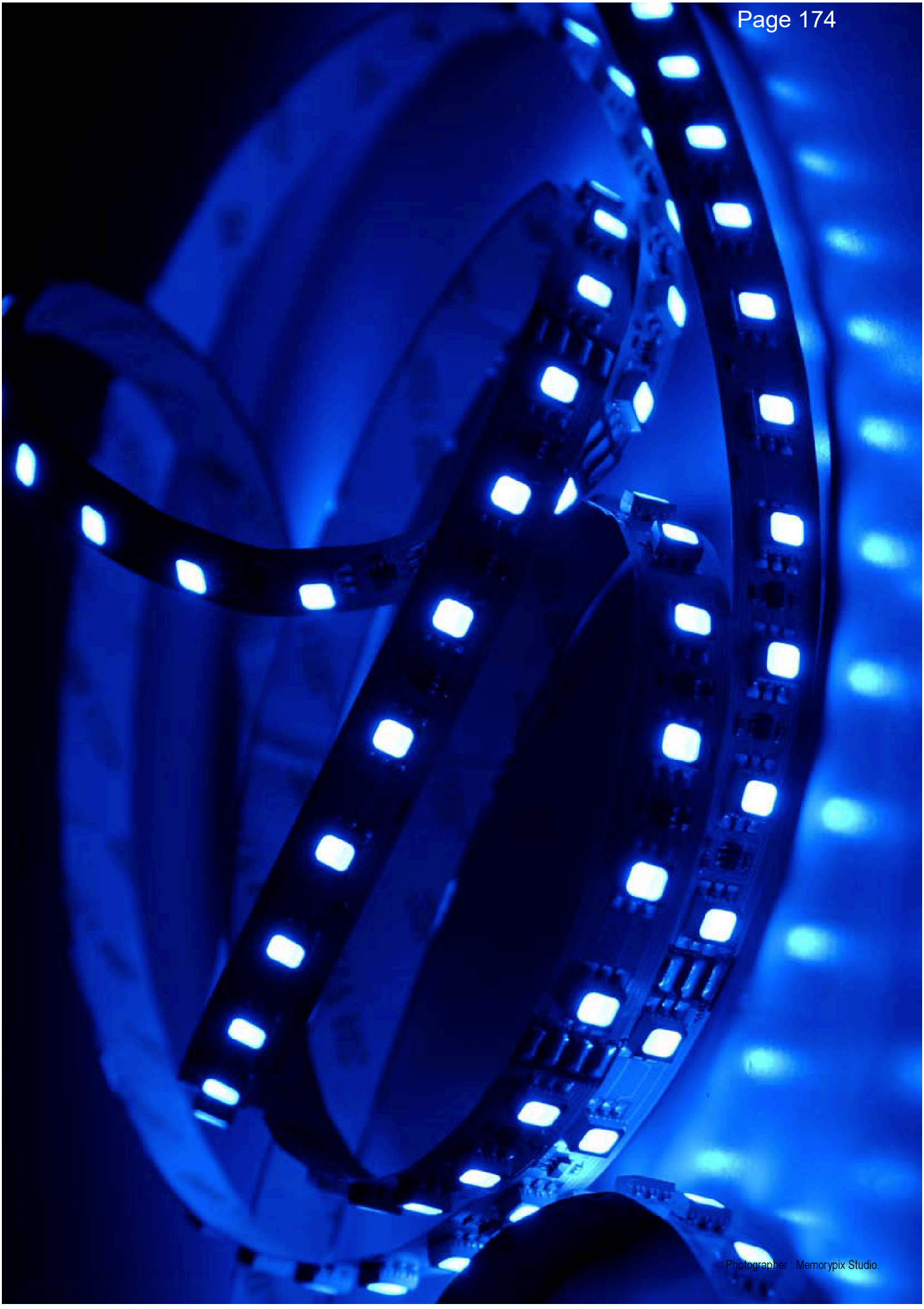
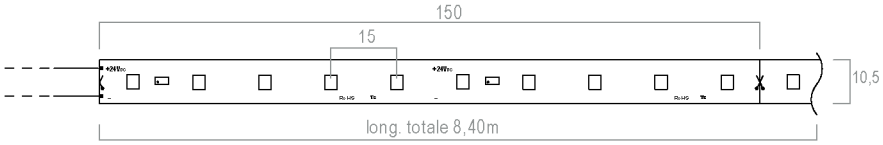


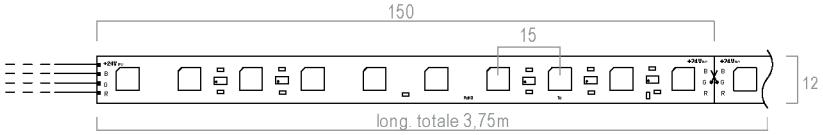

Photographer : Memorypix Studio.

SLOOP

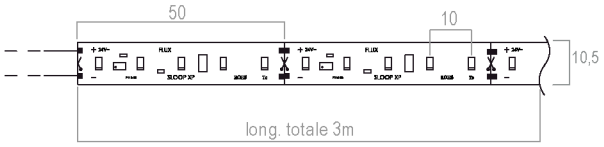
SLOOPLED



SLOOPLED FULL RGB



SLOOPLED XP



SLOOPLED - 24V - IP20

Use :	Flexible LED ribbon for marker light, indirect and backlight, indoor use. Mounting on all surfaces with no heat dissipation is possible.
Lighting features :	CMS LED monochromatic. Angle of radiation : 115°. Colours : Warm white 3200K, Cold white 6300K, red, blue, green, amber
Electrical features :	Class 3. Wiring in parallel on a 24V power supply. 2x0,75mm² cable lg. 0,50m (black - ; red +). Maximum ambient temperature : 35°C. Dimmable with PILOTBOX (see on controller chapter).
Mechanical features :	IP20. CMS LED flexible circuit polyamide and copper. Double-sided adhesion. Modules every 150mm. Radius of curvature : 2cm. Dimensions : Width : 10,5mm ; Thickness : 2,5mm Accessories: mounting bracket, cover and profile.

Warm white 3200K*		
SLOOPLED	115°	
Coil length : 8,40m		697845
Coil length : 4,20m		697425
Cold white 6300K*		
SLOOPLED	115°	
Coil length : 8,40m		697840
Coil length : 4,20m		697420
Red		
SLOOPLED	115°	
Coil length : 8,40m		697844
Coil length : 4,20m		697424
Green		
SLOOPLED	115°	
Coil length : 8,40m		697842
Coil length : 4,20m		697422
Blue		
SLOOPLED	115°	
Coil length : 8,40m		697841
Coil length : 4,20m		697421
Amber		
SLOOPLED	115°	
Coil length : 8,40m		697843
Coil length : 4,20m		697423

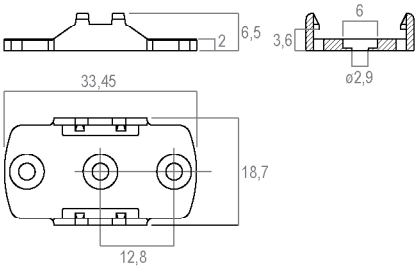
Accessories	
Mounting bracket for aluminum profile	412503
Profile mount aluminum 9x18x2000mm	412501
PMMA cover 62% white 10x20x2000mm	412510
PMMA diffusing cover 82% 10x20x2000mm	412520
PMMA tip for aluminum profile 19x32x6mm	412502

* Typical values : Values subject to change.

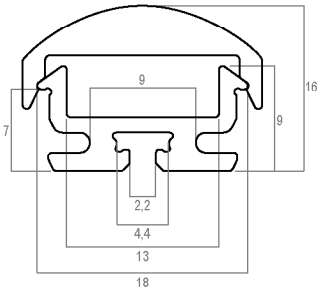
SLOOPLED - 24V - IP20

Colours	Length	No. LED	Electrical Consumption
White 6300K	8,40m	560	81W
White 6300K	4,20m	280	40,5W
White 3200K	8,40m	560	81W
White 3200K	4,20m	280	40,5W
Red	8,40m	560	27W
Red	4,20m	280	13,5W
Green	8,40m	560	54W
Green	4,20m	280	27W
Blue	8,40m	560	54W
Blue	4,20m	280	27W
Amber	8,40m	560	54W
Amber	4,20m	280	27W

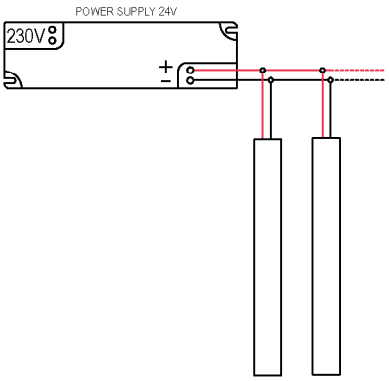
MOUNTING SUPPORT ACCESSORY



COVER & PROFILE ACCESSORY



PARALLEL CONNECTION



MAX. QUANTITY OF LUMINAIRES ON ONE POWER SUPPLY				
SLOOPLED		POWER SUPPLY 24V		
Colours	Length.	CODE 609050 IP20	CODE 609100 IP20	CODE 609150 IP20
White 6300K	8,40m	/	1	1
White 6300K	4,20m	/	2	3
White 3200K	8,40m	/	1	1
White 3200K	4,20m	/	2	3
Red	8,40m	1	3	5
Red	4,20m	3	7	10
Green	8,40m	1	1	2
Green	4,20m	1	3	5
Blue	8,40m	1	1	2
Blue	4,20m	1	3	5
Amber	8,40m	1	1	2
Amber	4,20m	1	3	5

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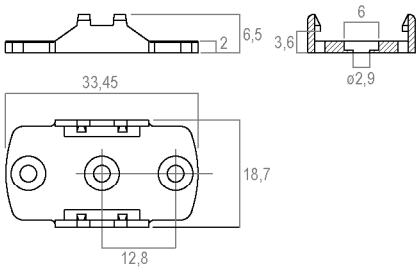
SLOOPLED FULL RGB - 24V - IP20

Use :	Flexible LED ribbon for marker light, indirect and backlight, indoor use. Mounting on all surfaces with no heat dissipation is possible.
Lighting features :	CMS LED FULL RGB. Angle of radiation : 115°. Colours : FULL RGB.
Electrical features :	Class 3. Wiring in parallel on a 24V power supply. 4x0,5mm² cable lg. 0,50m (black + ; red - ; green - ; blue -). Maximum ambient temperature : 35°C. Controlled and dimmable with PILOTBOX (see on controller chapter).
Mechanical features :	IP20. CMS LED flexible circuit polyamide and copper. Double-sided adhesion. Modules every 150mm. Radius of curvature : 2cm. Dimensions : Width : 12mm, Thickness : 2.8 mm. Accessories : mounting bracket, cover and profile.

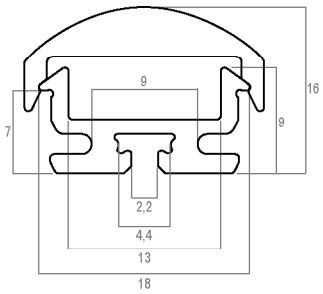
FULL RGB	
SLOOPLED RGB	115°
Coil length : 3,75m	696375
Coil length : 1,80m	696180

Accessories	
Mounting bracket for aluminum profile	412503
Profile mount aluminum 9x18x2000mm	412501
PMMA cover 62% white 10x20x2000mm	412510
PMMA diffusing cover 82% 10x20x2000mm	412520
PMMA tip for aluminum profile 19x32x6mm	412502

MOUNTING SUPPORT ACCESSORY

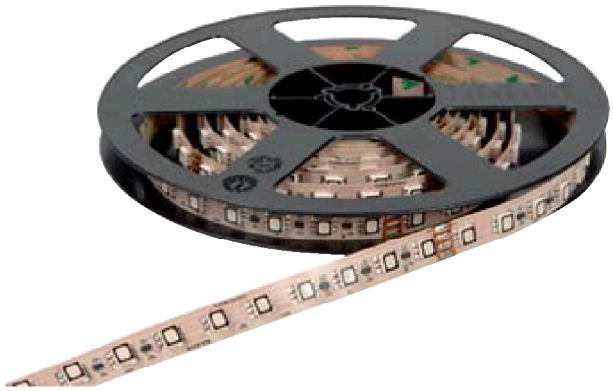


COVER & PROFILE ACCESSORY



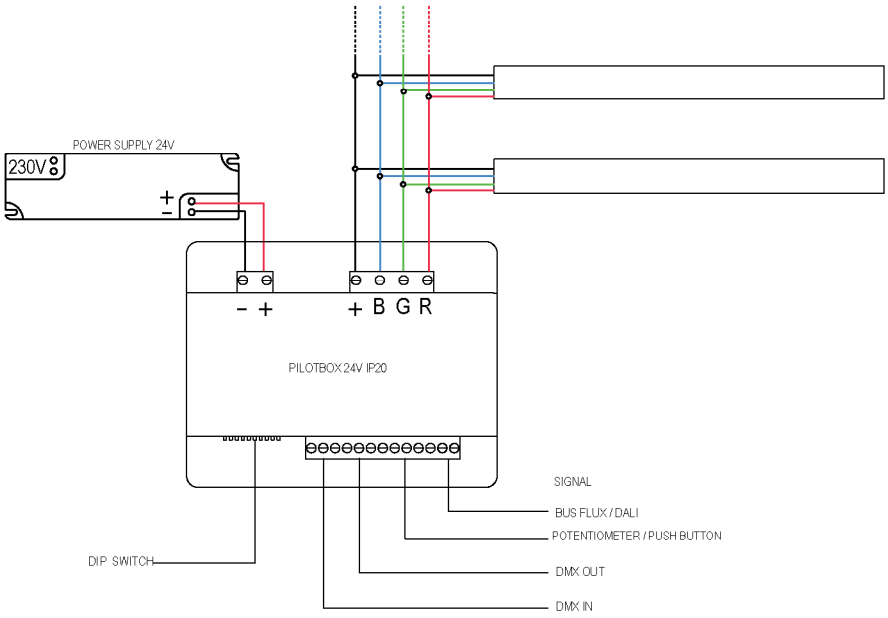
SLOOPLED FULL RGB - 24V - IP20

Colours	Length	No. LED	Electrical Consumption
Full RGB	3,75m	250	60W
Full RGB	1,80m	120	28,8W



PARALLEL CONNECTION

MAX. QUANTITY OF LUMINAIRES ON ONE POWER SUPPLY				
SLOOPLED RGB		POWER SUPPLY 24V		
Colours	Length	CODE 609050 IP20	CODE 609100 IP20	CODE 609150 IP20
FULL RGB	3,75m	/	1	2
FULL RGB	1,80m	1	3	4



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SLOOPLED XP - 24V - IP20

Use :	Flexible LED ribbon for detailed lighting, indirect and backlight indoor lighting. Aluminum surface for heat dissipation* (see mechanical characteristic).
Lighting features :	LED CMS monochrome. Angle of radiation : 115°. Colours : Warm white 3000K* ; cold white 5000K*.
Electrical features :	Class 3. Wiring in parallel on a 24V power supply. 2x0,75mm² cable lg. 0,50m (black - ; red +). Maximum ambient temperature : 35°C. Dimmable with PILOTBOX (see controller chapter).
Mechanical features :	IP20. CMS LED flexible circuit polyamide and copper. Double-sided adhesion. Modules every 50mm. Radius of curvature : 2cm. Dimensions : Width : 10,5mm ; Thickness : 1,5mm. Installation: provide heat dissipation (* aluminum surface at least 70mm wide and 1mm thick).

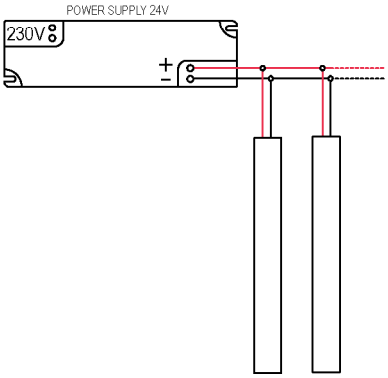
Warm white 3000K*		
SLOOPLED XP	115°	
Coil length : 3m		695300
Coil length : 1m		695100
Cold white 5000K*		
SLOOPLED XP	115°	
Coil length : 3m		695301
Coil length : 1m		695101

* Typical values : Values subject to change.

SLOOPLED XP - 24V - IP20

Colours	Length	No. LED	Electrical Consumption
White 3000K	3m	300	86,4W
White 3000K	1m	100	28,8W
White 5000K	3m	300	86,4W
White 5000K	1m	100	28,8W

PARALLEL CONNECTION

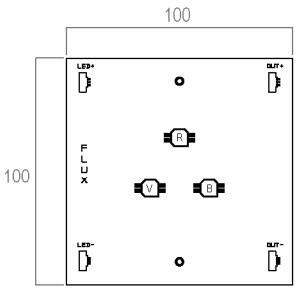


MAX. QUANTITY OF LUMINAIRES ON ONE POWER SUPPLY			
SLOOPLED XP		POWER SUPPLY 24V	
Colours	Length	CODE 609100 IP20	CODE 609150 IP20
White 5000K	3m	1	1
White 5000K	1m	3	4
White 3000K	3m	1	1
White 3000K	1m	3	4

A52523997

Casino : Café de Paris. Monaco. Conception : SBM, Réalis. Photographe : P. Jeury.

BACKLIGHT



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BACKLIGHT RGB 350mA - IP20

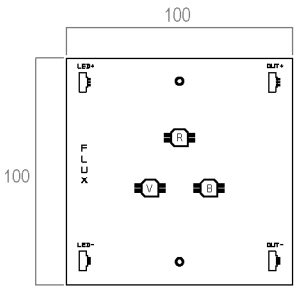
Use :	Square LED power module for the backlight to be installed inside a diffusing surface.
Lighting features :	3 power LED RGB 1W. Without optic : 120°. Colours : RGB. On request : monochromatic.
Electrical features :	Class 3. Up to 12 modules in series on 350mA RJ45 power supply. For cable with connector supplied L : 250mm. Maximum ambient temperature : 35 ° C. Dimmable and controllable (see controller chapter).
Mechanical features :	IP20. Mounting plate aluminum PCB. 2 Fixing screws not included. Dimensions : 100x100mm

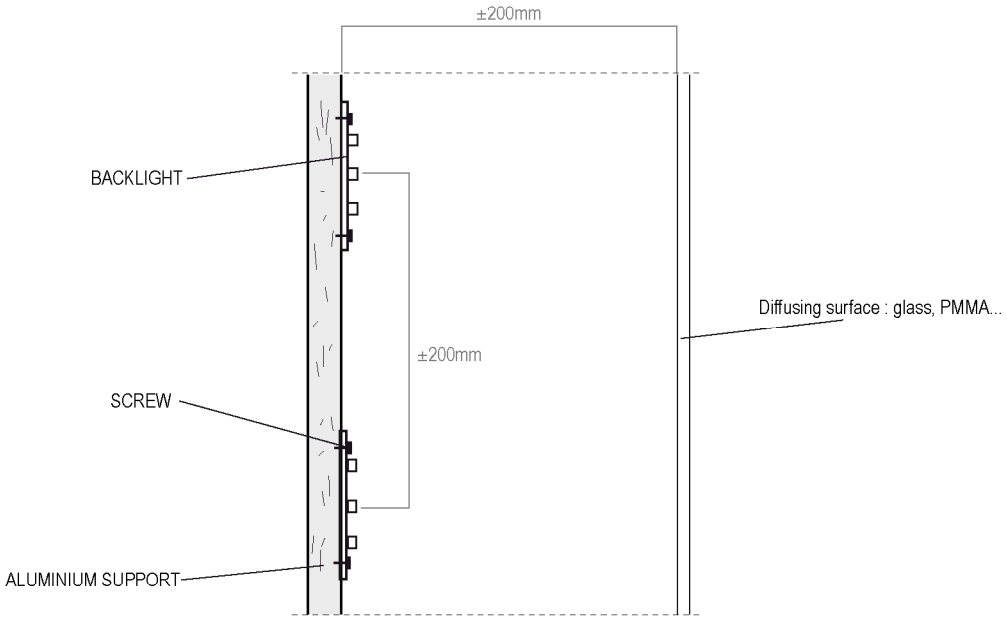
RGB	120°
BACKLIGHT	
Module	690003

ACCESSORIES	
CONNECTOR "butt and butt"	446015
CONNECTOR "Y"	446014
CABLE RJ45 Extension lg.0,50m	446010
CABLE RJ45 Extension lg.2m	446011
CABLE RJ45 Extension lg.5m	446012
CABLE RJ45 Extension lg.10m	446013

BACKLIGHT RGB 350mA - IP20

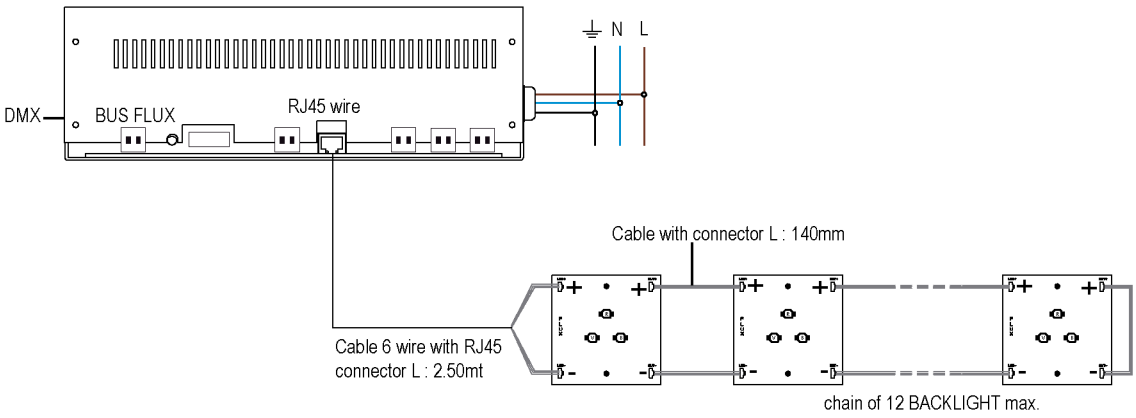
Colours	No. LED	Electrical Consumption	Power Supply
RGB	3	3W	350mA





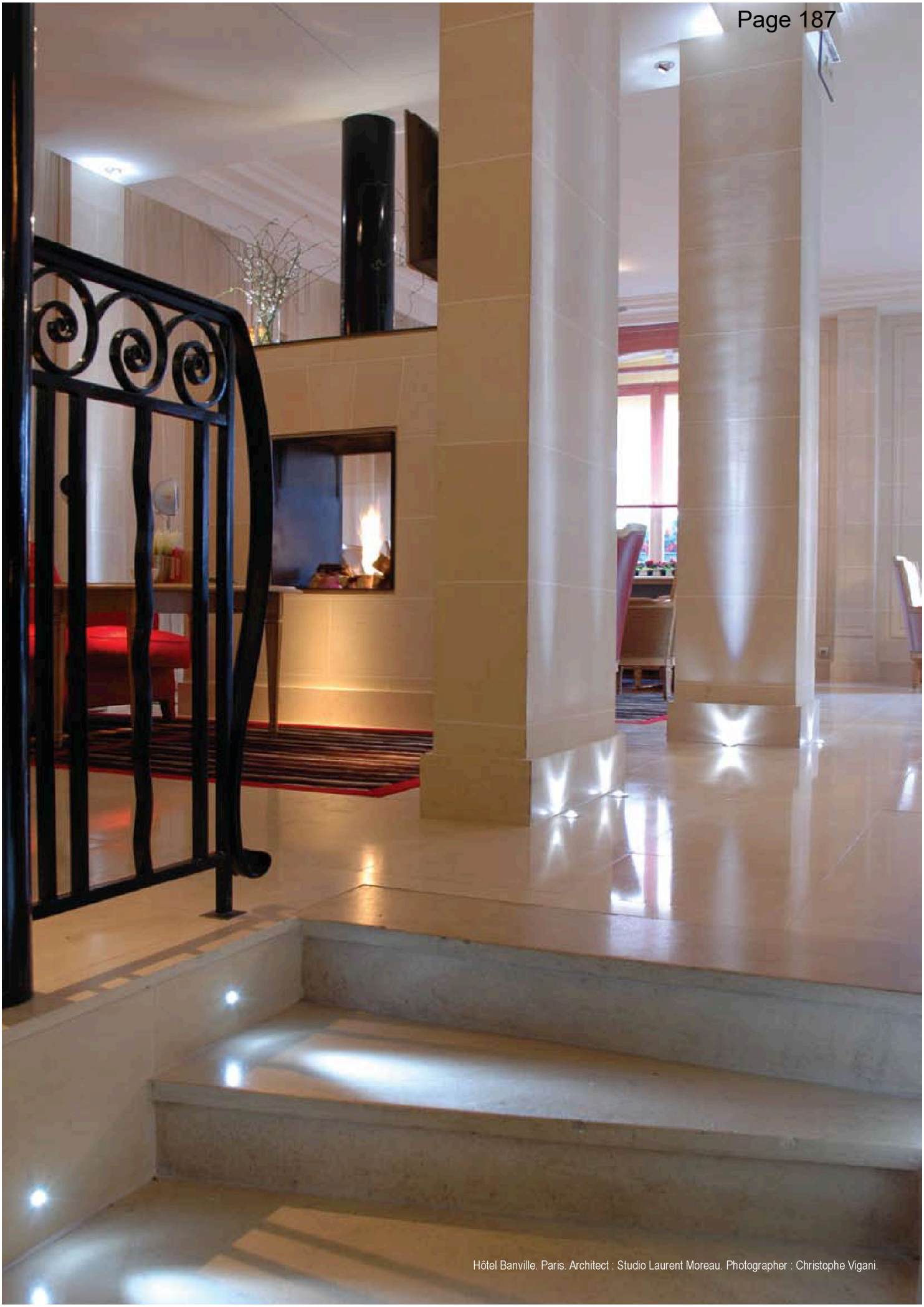
SERIAL CONNECTION

MAX. QUANTITY OF LUMINAIRES ON ONE POWER SUPPLY	
POWER SUPPLY 350mA	CODE 612165 IP20
BACKLIGHT IP20	12



A52523997

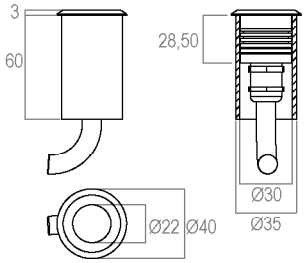
Galerie des Champs Elysées. Paris. Design and architect : DGLA et ARKHITEKTON. Photographer : Erik Saillet.



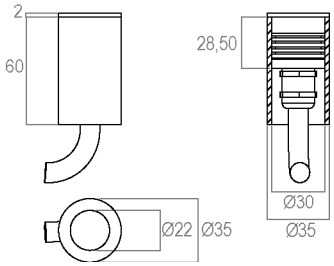
Hôtel Banville. Paris. Architect : Studio Laurent Moreau. Photographer : Christophe Vigani.

MYRIAD 1s

BIZO FLANGE



UBLO FLANGE



A52523997

MYRIAD 1s - 350mA - IP66

Use :	Power LED Reccesed for outoor lighting.
Lighting features :	1 Power LED 1W monochromatic. Without optics : 120°. Colours : Warm white 3000K, Cold white 6500K, Red, Green, Blue, Amber.
Electrical features :	Class 3. Wiring in series on a 350mA power supply. Cable HO5RNF 2x1mm²; length : 2.50m (blue -, brown +). Maximum ambient temperature : 35°C. Dimmable in DMX or FLUX BUS (see on controller chapter).
Mechanical features :	IP66. IK08. 960°C. Stainless steel flange. Anodised aluminium body. Clear or frosted glass. Delivered with aluminium installation sleeve.

Warm white 3000K*	Clear glass	Frosted glass
BIZO flange	714202	714211
UBLO flange	714102	714112

Cold white 6500K*	Clear glass	Frosted glass
BIZO flange	714201	714212
UBLO flange	714101	714111

Red	Clear glass	Frosted glass
BIZO flange	714203	714213
UBLO flange	714103	714113

Green	Clear glass	Frosted glass
BIZO flange	714204	714214
UBLO flange	714104	714114

Blue	Clear glass	Frosted glass
BIZO flange	714205	714215
UBLO flange	714105	714115

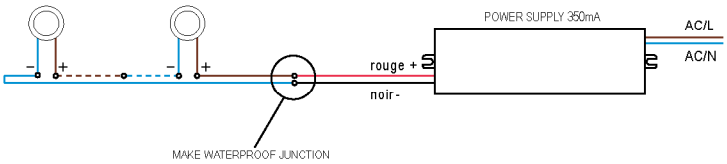
Amber	Clear glass	Frosted glass
BIZO flange	714206	714216
UBLO flange	714106	714116

* Typical values : Values subject to change.

MYRIAD 1s - 350mA - IP66

Colours	Weight	No. LED	Electrical consumption	Power supply
Warm white	220 gr.	1	1W	350mA
Cold white	220 gr.	1	1W	350mA
Red	220 gr.	1	1W	350mA
Green	220 gr.	1	1W	350mA
Amber	220 gr.	1	1W	350mA

SERIAL CONNECTION



MAX. QUANTITY OF LUMINAIRES ON ONE POWER SUPPLY			
POWER SUPPLY 350mA	CODE 711305 IP67	CODE 711315 IP67	CODE 711385 IP65
MYRIAD 1s IP66	4	12	36

A52523997

Hôtel Banville. Paris. Architect : Studio Laurent Moreau. Photographer : Christophe Vigani.

Introducing

αlphα **LED**

Unique Light Engine

Projection™ lighting

UNDERSTANDING LEDs

A52523997

αlphα **LED**

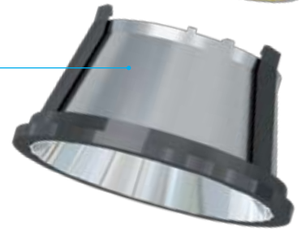
Unique Light Engine

Heatsink
Alpha LEDs unique heatsink is a key part of the thermal management system. Good temperature control is crucial for long life, consistency and high light output of LEDs.

Thermal Conductor
Thermal conductor ensures a reliable thermal connection between the spot module and heatsink.

Xicato Spot Module
The Xicato Spot Module uses an internal optical mixing chamber and cold phosphor technology. This improves life and ensures the normal colour variation experiences with LEDs is not present with this system.

Reflector
Alpha LEDs high efficiency reflector is a heat formed pressing and achieves a 95% light transmission.



Alpha LED is a unique light engine and a new light source.

Until now, despite extensive attempts to resolve colour variation by binning, LEDs have produced inconsistent colour temperatures which are visible within groups of the same luminaire.

Alpha LED light engine features a unique optical mixing cavity. The mixed light passes though a cold phosphor coating to convert it to a high quality, stable and consistent white light.

Erratic colour temperatures between individual LEDs inherent with current technology are completely removed. This means there are no binning issues.

Cold phosphor technology and thermal control guarantees a long stable life. Alpha LED exhibits all the best characteristics of any existing light source.

Visit www.alphaLED.co.uk for more information.

αlphα **LED Washer**
Recessed adjustable downlight utilising the Alpha LED light engine, supplied with remote gear. Die-cast aluminium construction, finished in white, black or metallic silver.

Cutout Ø123mm Height 180mm

αlphα **LED Basic**
Recessed adjustable downlight utilising the Alpha LED light engine, supplied with remote gear. Die-cast aluminium construction, finished in white, black or metallic silver.

Cutout Ø90mm Height 122mm

αlphα **LED Universal**
Recessed downlight utilising the Alpha LED light engine, supplied with remote gear. Die-cast aluminium construction, finished in white, black or metallic silver.

Cutout Ø95mm Height 170mm

Etched

Drop

Open

Glass

Aqua

Halo

Key Features:

- Total colour consistency
- Efficient light output – Part L compliant
- Colour temps of 2700/3000/4000
- 50,000 Lifetime with a 5 year guarantee
- Ideal halogen replacement
- Excellent colour rendering (Up to CRI 95)
- Minimal Infra red – No harmful UV
- Less than 2 year payback
- Eco-friendly – Mercury and lead free
- Supplied with driver

Efficacy from Q2 2009

	350mA		700mA	
Colour	**9W**	**Lumens/Watt**	**18W**	**Lumens/Watt**
4000K*	630	70	1135	64
3000K**	542	61	1002	56
2700K**	529	59	971	54

*As tested by University College London
**Undergoing final testing

Alpha LED Washer	Cat no.	Lamp		
	LDW241-27-40-9	9w	40°	2700K
	LDW241-30-40-9	9w	40°	3000K
	LDW241-40-40-9	9w	40°	4000K
	LDW241-27-40-18	18w	40°	2700K
	LDW241-30-40-18	18w	40°	3000K
	LDW241-40-40-18	18w	40°	4000K

Alpha LED Basic	Cat no.	Lamp		
	LDL77AB-27-40-9	9w	40°	2700K
	LDL77AB-30-40-9	9w	40°	3000K
	LDL77AB-40-40-9	9w	40°	4000K

Alpha LED Universal Open	Cat no.	Lamp		
	LDH2000-27-40-9	9w	40°	2700K
	LDH2000-30-40-9	9w	40°	3000K
	LDH2000-40-40-9	9w	40°	4000K
	LDH2000-27-40-18	18w	40°	2700K
	LDH2000-30-40-18	18w	40°	3000K
	LDH2000-40-40-18	18w	40°	4000K

Alpha LED Universal Etched	Cat no.	Lamp		
	LDH2006-27-40-9	9w	40°	2700K
	LDH2006-30-40-9	9w	40°	3000K
	LDH2006-40-40-9	9w	40°	4000K
	LDH2006-27-40-18	18w	40°	2700K
	LDH2006-30-40-18	18w	40°	3000K
	LDH2006-40-40-18	18w	40°	4000K

Alpha LED Universal Glass	Cat no.	Lamp		
	LDH2001-27-40-9	9w	40°	2700K
	LDH2001-30-40-9	9w	40°	3000K
	LDH2001-40-40-9	9w	40°	4000K
	LDH2001-27-40-18	18w	40°	2700K
	LDH2001-30-40-18	18w	40°	3000K
	LDH2001-40-40-18	18w	40°	4000K

Alpha LED Universal Aqua	Cat no.	Lamp		
	LDH2006IP-27-40-9	9w	40°	2700K
	LDH2006IP-30-40-9	9w	40°	3000K
	LDH2006IP-40-40-9	9w	40°	4000K
	LDH2006IP-27-40-18	18w	40°	2700K
	LDH2006IP-30-40-18	18w	40°	3000K
	LDH2006IP-40-40-18	18w	40°	4000K

Alpha LED Universal Halo	Cat no.	Lamp		
	LDH2003-27-40-9	9w	40°	2700K
	LDH2003-30-40-9	9w	40°	3000K
	LDH2003-40-40-9	9w	40°	4000K
	LDH2003-27-40-18	18w	40°	2700K
	LDH2003-30-40-18	18w	40°	3000K
	LDH2003-40-40-18	18w	40°	4000K

Alpha LED Universal Drop	Cat no.	Lamp		
	LDH2007-27-40-9	9w	40°	2700K
	LDH2007-30-40-9	9w	40°	3000K
	LDH2007-40-40-9	9w	40°	4000K
	LDH2007-27-40-18	18w	40°	2700K
	LDH2007-30-40-18	18w	40°	3000K
	LDH2007-40-40-18	18w	40°	4000K

Projection™ lighting
UNDERSTANDING LEDs

4th Avenue, The Village, Trafford Park, Manchester M17 1DB
Tel: +44 (0) 161 872 6868 **Fax:** +44 (0) 161 872 6869
email: pll@projectionlighting.co.uk **www.projectionlighting.co.uk**

New South Glasgow Hospitals Project
Bid Submission Clarifications
Bidder: 1 (Brookfield)
Technical Clarification: 4 (issued 07 October 2009 – return by 5pm Monday 12 October 2009)

PRIVATE & CONFIDENTIAL

Item	Topic/Bid Reference	Board Clarification	Bidder Response
-	-	-	-
General			
-	-	No items in this TC.	-
Logistics			
-	-	No items in this TC.	-
Design/HP			
1.0	Schedule of Accommodation	Clarity is required with regard to your Schedule of Accommodation. The attached Appendix A identifies the area assessment presently (in column C). Please identify each actual figure in the column D 'Confirmation' listing to reflect the following (with item 3 provided separately): 1. **Gross departmental area** (including planning and engineering and departmental circulation) for each department and the total for each hospital 2. **Net departmental area** (sum of net as drawn/designed rooms only) for each department and the total for each hospital 3. **Net room areas** (excluding all ducts, pipe boxing and service zones) listed room by room and by department 4. **Circulation area** (departmental) for each department and the total for each hospital 5. **Communications and plant areas** (interdepartmental circulation horizontal and vertical and main plant rooms and risers) for each hospital 6. **Total gross floor area** for each hospital.	Please find attached the completed Appendix A which has identified the actual area figures requested to be clarified in column D 'Confirmation'. We have assumed the 'Y' noted against Section Number 1 is the Board's acceptance that this information has already been provided by Brookfield in Volume 1; Sections 1.1, 1.2, 1.3, 1.4 of our Bid Submission. In addition, please note that the Total Gross Floor Area noted in our submission did not include the % Planning allowance. This SOA was generated by Codebook, and was an accurate 'As Drawn Area' which excluded the thickness of the internal partitions. This has now been included in the completed Appendix A. These figures represent the GIFA which has been priced and included within the Cost Plan.

2.0	MRI replacement	Please confirm your proposals (methodology, routes and structural provision to support) the replacement/retro fit of MRI equipment.	In the absence of specific MRI product information, the building footprint areas identified on the plans as housing MRI installations have been checked against a 7.5 tonne magnet installation (example from a recent comparable project). In each case it was noted that the floor and foundation structures as currently presented could be appropriately detailed to facilitate the incorporation of this equipment. The proposed transit route for the MRI installation is not known but is expected to be either through double access doors at ground level, along corridors and possibly via a wall knock-out access panel into the proposed room. Alternatively, the MRI unit could be delivered to the FM area and transported via the service tunnel to a lift and then to the corridor etc as above. The floor and foundation structures for the possible routes noted above have been checked against the 7.5t load and noted to be able to be appropriately detailed to facilitate the incorporation of this equipment. The final location of any such equipment will require to be specifically checked against the details of the actual equipment proposed.
M&E Service			
3.0	M&E Services	Please confirm pipework types for DH&CW, CHW and heating.	For DH&CW pipework, Stainless Steel Mapress by Gilbert (or equivalent) is proposed up to 67mm dia. and an ABS type material will be used on sizes above this. Copper will not be used on these systems. For CHW & LTHW, carbon steel galvanised Mapress by Gilbert (or equivalent), Large bore, mild steel medium grade tube, Victaulic mechanical couplings (or equivalent). For MTHW mild steel heavy grade tube fully welded/flanged.
4.0	M&E Services	Please provide more clarity (detail) with regard to your. proposed lighting controls.	A mixture of automatic ‘absence’ and ‘presence’ detection will be provided. Presence detection: detector switches lighting on and off. Extent of provision: intermittently occupied areas such as WCs, en suites, corridors, ward kitchens, stores, plant rooms, services risers, hospital streets, bathrooms etc. Absence detection: lights manually switched on, detector

			extinguishes lighting in unoccupied room. Extent of provision: offices, consulting rooms etc. In addition, in rooms benefiting from daylight, luminaires near windows will be dimmable, regulated by the amount of daylight available. Dimmable lighting has been included where specifically required by the ADB sheets. Automatic control of lighting in rooms which have plenty of natural light will be regulated by means of a photocell within the space to ensure the required LUX is achieved by the combination of ambient and artificial light.
5.0	M&E Services	Please confirm that duty / stand-by plate heat exchangers will be provided for Domestic hot water.	Packaged plate heat exchangers/buffer vessels will be arranged to provide run/standby as described in Volume 4 Specification 4.28 and Volume 5 Schedule 5.2.
6.0	M&E Services	Please provide details of proposed thermostatic mixing valves for DHW.	Taps with integral TMV3 will be used wherever suitable (refer to attached data sheet). In situations where these are not appropriate separate TMV3 thermostatic mixing valves will be used such as Oventrop Brawa-Mix 97 (or equivalent).
7.0	M&E Services	Please provide details of trench make up for main services.	Trench depths, spacings and backfill will be as NHS Model Engineering Specifications C01 for pipe services and C41 for electrical services. Buried pre-insulated heating and chilled water mains will be in accordance with the system manufacturer's recommendations but will be similar to above.
8.0	M&E Services	Please confirm that twin regulating valves have been included for gas supplies.	Yes confirmed
9.0	M&E Services	Please confirm that NRV will be fitted at each fire isolation valve as ER's.	Yes confirmed
10.0	M&E Services	Please confirm mechanical air change rate for the ward tower.	A typical ward in the tower has the following air change rates to either meet the ADB requirements or achieve the environment conditions: • Bedrooms 2.5 ACH (related to ensuite extract rate and air volume for chilled beam unit loadings)

			• Ensuites 10 ACH • Clean Utility 6ACH • Disposal Hold 10 ACH • Pantry 6 ACH • Dirty Utility 10 ACH • Equipment store • Cleaner 5 ACH • Nurse base Up to 12 ACH to balance extract from utility spaces, etc • Office/meeting 4 ACH
11.0	M&E Services	Please confirm type of fire Extinguishants gas proposed for the main Comms rooms.	The main comms rooms will be protected by a gaseous fire suppression system, the two gases for consideration at detailed design stage are NOVEC1230 and FM200. Both gases have attributes and issues; NOVEC1230 has a Global Warming Potential(GWP) of 1, while FM200 has a GWP of 2900. Certainly NOVEC1230 is kinder to the environment, but it is less kind to the IT assets it is protecting due to the much greater temperature drop when released, over FM200. The rapid rate of change of temperature has been shown to result in failure of the electronic components. The hope is that the suppression gas is never released and that the systems operate on a double knock strategy of operation
12.0	M&E Services	Please indicate the plant resilience for hot and cold water services, e.g. full duplicate or is one extra unit proposed per plant area?	HWS calorifiers are provided in groups to serve zones of the building. Each group includes a standby calorifier. Refer to Volume 5 Schedule 5.2 Calorifier.
13.0	M&E Services	Further to your responses to TC#2, the items listed in the attached Appendix B require further clarification/responses.	As noted on Appendix B
Renewables/Sustainability/BREEAM			
-	-	No items in this TC.	-
Laboratories			
-	-	No items in this TC.	-

APPENDIX A

NSGH - Schedule of Accommodation Analysis

Private & Confidential

Section Number	Submission	Brookfield	Confirmation	Notes
1.0	**Accommodation Schedule - Adult Hospital**			
	Gross Departmental Area (includes circ, planning & eng		95,697.50	
	Net Departmental Area (excludes circ. planning & eng	83,625	68,318.12	
1.1	Net Area - room by room, incl. ducts, pipe boxes & service zones	Y		To be provided separately in list form. **Please refer to our Bid Submission Volume 1.0; Sections 1.1, 1.2, 1.3, 1.4. in addition to the Excel Spreadsheet issued on 17/09/09**
1.2	Circulation area		22,189.38	
1.3	Communication & plant space area	37,691	30,811.80	
1.4	Total Gross Floor Area - adults	121,316	**126,509.30**	Please note that our previous Total Gross Floor Area Schedule did not include the % planning allowance as this equated to an 'As Drawn Area', and excluded the wall thicknesses. This has now been included in the total provided.

Section Number	Submission	Brookfield		
1.0	**Accommodation Schedule - Childrens Hospital**			
	Gross Departmental Area (includes circ, planning & eng		30,195.60	
	Net Departmental Area (excludes circ. planning & eng	21,548	20,590.60	
1.1	Net Area - room by room, incl. ducts, pipe boxes & service zones	Y		To be provided separately in list form. **Please refer to our Bid Submission Volume 1.0; Sections 1.1, 1.2, 1.3, 1.4. in addition to the Excel Spreadsheet issued on 17/09/09**
1.2	Circulation area		7,610.90	
1.3	Communication & plant space area	17,256	10,252.70	
1.4	Total Gross Floor Area - kids	38,803	**40,448.30**	Please note that our previous Total Gross Floor Area Schedule did not include the % planning allowance as this equated to an 'As Drawn Area', and excluded the wall thicknesses. This has now been included in the total provided.

Section Number	Submission	Brookfield		
1.0	**Accommodation Schedule - Combined**			
	Gross Departmental Area (includes circ, planning & eng		125,893.10	
	Net Departmental Area (excludes circ. planning & eng	105,173	88,908.72	
1.1	Net Area - room by room, incl. ducts, pipe boxes & service zones	Y		To be provided separately in list form. **Please refer to our Bid Submission Volume 1.0; Sections 1.1, 1.2, 1.3, 1.4. in addition to the Excel Spreadsheet issued on 17/09/09**
1.2	Circulation area		29,800.28	
1.3	Communication & plant space area	54,937	41,064.50	
1.4	Total Gross Floor Area - combined	160,119	**166,957.60**	Please note that our previous Total Gross Floor Area Schedule did not include the % planning allowance as this equated to an 'As Drawn Area', and excluded the wall thicknesses. This has now been included in the total provided.
		Y		We assume that this confirms the Board's acceptance that this information has already been provided by Brookfield

Information not provided by bidder

Numbers derived from bidders information

Information provided by bidder

From: Paul Serkis [redacted]
Sent: 14 October 2009 17:28
To: Frew, Shiona; Jane Williamson
Cc: Ross Ballingall; Sophie Rainey; Douglas Ross; Ben Keenan; Tim Bicknell
Subject: RE: Commercial Clarification Nr 3
Attachments: Specific Risk items Stage 1.xls; 091012 NSGH V9_9.3 Stage 2 FBC Programme BCL-NSGH-TN01-0024.pdf; Bidder 1 Commercial Clarifications 3 Response.pdf; CSA Target Labs 14-10-09.pdf; MONTE CARLO INFO.xls; MPTC_Calculator final 141009.pdf; Rev Risk Stage 1.xls; ATT7669181.txt

Shiona

The file was too large so I am sending in separate emails. (Drawings for blinds to follow)

Regards

Paul

Paul Serkis
Commercial Director - Infrastructure

Brookfield Europe
23 Hanover Square
London, W1S 1JB
t: [redacted]
f: [redacted]
m: [redacted]
www.brookfieldeurope.com

Brookfield

From: Paul Serkis
Sent: 14 October 2009 17:22
To: 'Frew, Shiona'; Jane Williamson
Cc: Ross Ballingall; Sophie Rainey; Douglas Ross; Ben Keenan; Tim Bicknell
Subject: RE: Commercial Clarification Nr 3

Shiona

Please find attached our response to Commercial Clarification No 3 as requested.

Again, our apologies for the late submission of this response.

Kind regards

Paul

Paul Serkis
Commercial Director - Infrastructure

Brookfield Europe
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London, W1S 1JB
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f: [redacted]
m: [redacted]
www.brookfieldeurope.com

Brookfield

Please consider the environment before printing this email.

From: Frew, Shiona [redacted]
Sent: 08 October 2009 12:11
To: Jane Williamson
Cc: Ross Ballingall; Paul Serkis; Sophie Rainey; Douglas Ross; Ben Keenan; Tim Bicknell
Subject: Commercial Clarification Nr 3

Dear All

Please find attached the Board's Commercial Clarification No 3 for response. The date for response will be agreed at the Commercial/Legal Meeting taking place on Friday 9th October at 2.30pm

The Agenda for the Commercial/Legal Meeting is as follows:

1. Review of Commercial Clarification Nr 1 & 2 Responses

2. Review of Commercial Clarification Nr 3 issued

3. Review of Risk Registers

Many thanks

Regards

Shiona

Shiona Frew
PA to Project Director
New South Glasgow Hospitals Project
St Andrew's House
80 Queen Elizabeth Avenue
Hillington
Glasgow
G52 4NQ
T: [redacted]
F: [redacted]

APPENDIX B
RISK REGISTER STAGE 1 LABORATORIES
COMMENTS ON RISK ITEMS

Item	
B10	Early notification of risk as no information had been provided by Laboratories design team. Risk now reduced although provision seen as low risk through implementation of change management
B12	The implications of dealing with the surrounding roads impacts on existing services etc. Mitigation detailed survey work and logistic planning Reduced risk due to clearer understanding of requirements and design
C23	This risk has been eliminated
C24	This risk relates to works carried out by the Boards Contractor's and Suppliers. Mitigation is a clearly defined management plan and checks. Now a minimal risk.
D3	Risk reduced as now measured and costs included in price. Limited residual risk as full details still to be established when Brookfield can interface with the design team.
D7	Risk reduced following review of Lab team design
D8	Due to the time frame that we had to check the design and in particular the buildability and co-ordination this still carries a risk, also due to the short period of time open to us prior to commencing on site.
D9	This risk is the contractor design elements such as cladding, curtain walling and specialist systems, piling etc. where there is limited time frame to ensure this is fully integrated and co-ordinated. Also there is a risk in the procurement process.
D10	Risk was identified early in the process when there was no information available. We have put management procedures in place and no longer see this as a risk therefore no monies have now been allocated against this risk.
D12	This is now a Board risk issue and has not been included in our Bid.

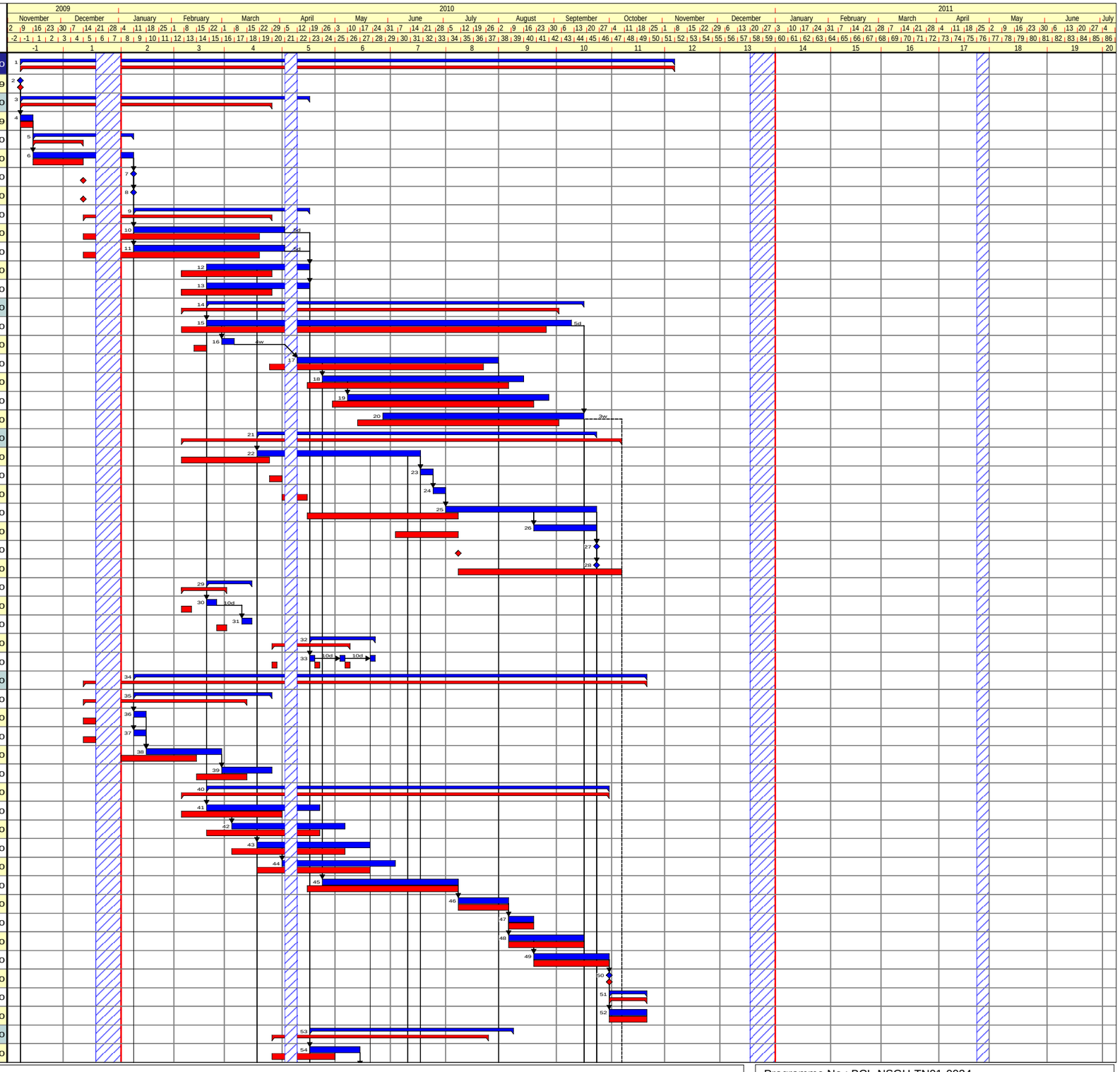
Brookfield

New South Glasgow Hospitals Project

Stage 2 Design Development to Full Business Case

Brookfield

Line	Activity	Start	Duration	End
1	**STAGE 2 DETAILED DESIGN AND FULL BUSINESS CASE APPROVAL**	09/11/2009	52ew	08/11/2010
2	Award Laboratories Contract and Appoint Preferred Bidder for Main Hospital	09/11/2009		09/11/2009
3	**Board Review and Sign-off Contractors Proposals as meeting Project Brief**	09/11/2009	23ew	16/04/2010
4	Discussions on Contractors Proposals and Review of Board's brief	09/11/2009	1ew	13/11/2009
5	Signing off 1:500's drawings and SoA	16/11/2009	8ew	11/01/2010
6	Review 1:500 plans & massing and masterplan	16/11/2009	8ew	08/01/2010
7	Board Sign-off 1:500's	11/01/2010		11/01/2010
8	Board Sign-off Schedule of Accommodation (SoA)	11/01/2010		11/01/2010
9	Signing off 1:200's	11/01/2010	14ew	16/04/2010
10	Review 1:200 drawing layouts	11/01/2010	12ew	02/04/2010
11	Review briefing document Room Data Sheets (RDS)	11/01/2010	12ew	02/04/2010
12	Board Sign-off 1:200's	19/02/2010	8ew	16/04/2010
13	Board Sign-off Room Data Sheets	19/02/2010	8ew	16/04/2010
14	**1:50's Loaded Drawings and Room Data Sheet User Groups Process**	19/02/2010	30ew	16/09/2010
15	Update drawings for 1:50 user group process	19/02/2010	29ew	09/09/2010
16	Prepare and issue user group meeting schedule	01/03/2010	1ew	05/03/2010
17	Round 1	12/04/2010	16ew	30/07/2010
18	Round 2	26/04/2010	16ew	13/08/2010
19	Round 3	10/05/2010	16ew	27/08/2010
20	Sign-off 1:50's	28/05/2010	16ew	16/09/2010
21	**Planning Submission and Approval Process**	19/03/2010	27ew	24/09/2010
22	Prepare Design for Planning Application	19/03/2010	13ew	17/06/2010
23	Sign-off Planning Application for submission and submit to Board	18/06/2010	1ew	24/06/2010
24	Board sign-off Planning Application	25/06/2010	1ew	01/07/2010
25	Planning Application Period	02/07/2010	12ew	23/09/2010
26	Agree Cladding materials with Planners and The Board	20/08/2010	5ew	23/09/2010
27	Planning Approval Granted	24/09/2010		24/09/2010
28	Judicial Review (deleted)	24/09/2010		24/09/2010
29	Presentations and Roadshows	19/02/2010	4ew	16/03/2010
30	Presentations & Roadshows 1st round 2 day event	19/02/2010	1ew	24/02/2010
31	Presentations & Roadshows 2nd round 2 day event	11/03/2010	1ew	16/03/2010
32	Value Engineering Workshops	19/04/2010	5ew	24/05/2010
33	Value Engineering Workshops	19/04/2010	5ew	24/05/2010
34	**Medical Equipment Programme**	11/01/2010	40ew	21/10/2010
35	Group 2 and 3 Equipment	11/01/2010	11ew	26/03/2010
36	Board issue list of Group 2 and 3 equipment	11/01/2010	1ew	15/01/2010
37	Schedule transferred equipment	11/01/2010	1ew	15/01/2010
38	Develop equipment transfer programme	18/01/2010	6ew	26/02/2010
39	Agree access programme for Board installed equipment and fit out	01/03/2010	4ew	26/03/2010
40	Group 1 Equipment	19/02/2010	32ew	01/10/2010
41	Review Codebook equipment descriptions	19/02/2010	9ew	22/04/2010
42	Produce generic specification for equipment	05/03/2010	9ew	06/05/2010
43	Clinical approval of generic specification	19/03/2010	9ew	20/05/2010
44	Board complete Clinical approval of generic specifications	02/04/2010	9ew	03/06/2010
45	Update Equipment lists & specs during 1:50 process	26/04/2010	10ew	08/07/2010
46	Obtain budget quotations	09/07/2010	4ew	05/08/2010
47	Obtain service connections & structural requirements	06/08/2010	2ew	19/08/2010
48	Produce performance specifications	06/08/2010	6ew	16/09/2010
49	Clinical approval of performance specifications	20/08/2010	6ew	30/09/2010
50	Board complete Clinical approval of performance specifications	01/10/2010		01/10/2010
51	All Equipment	01/10/2010	3ew	21/10/2010
52	Ratify full equipement list	01/10/2010	3ew	21/10/2010
53	**Reviewable Design Data Programme**	19/04/2010	16ew	09/08/2010
54	Prepare RDD schedule	19/04/2010	4w	14/05/2010



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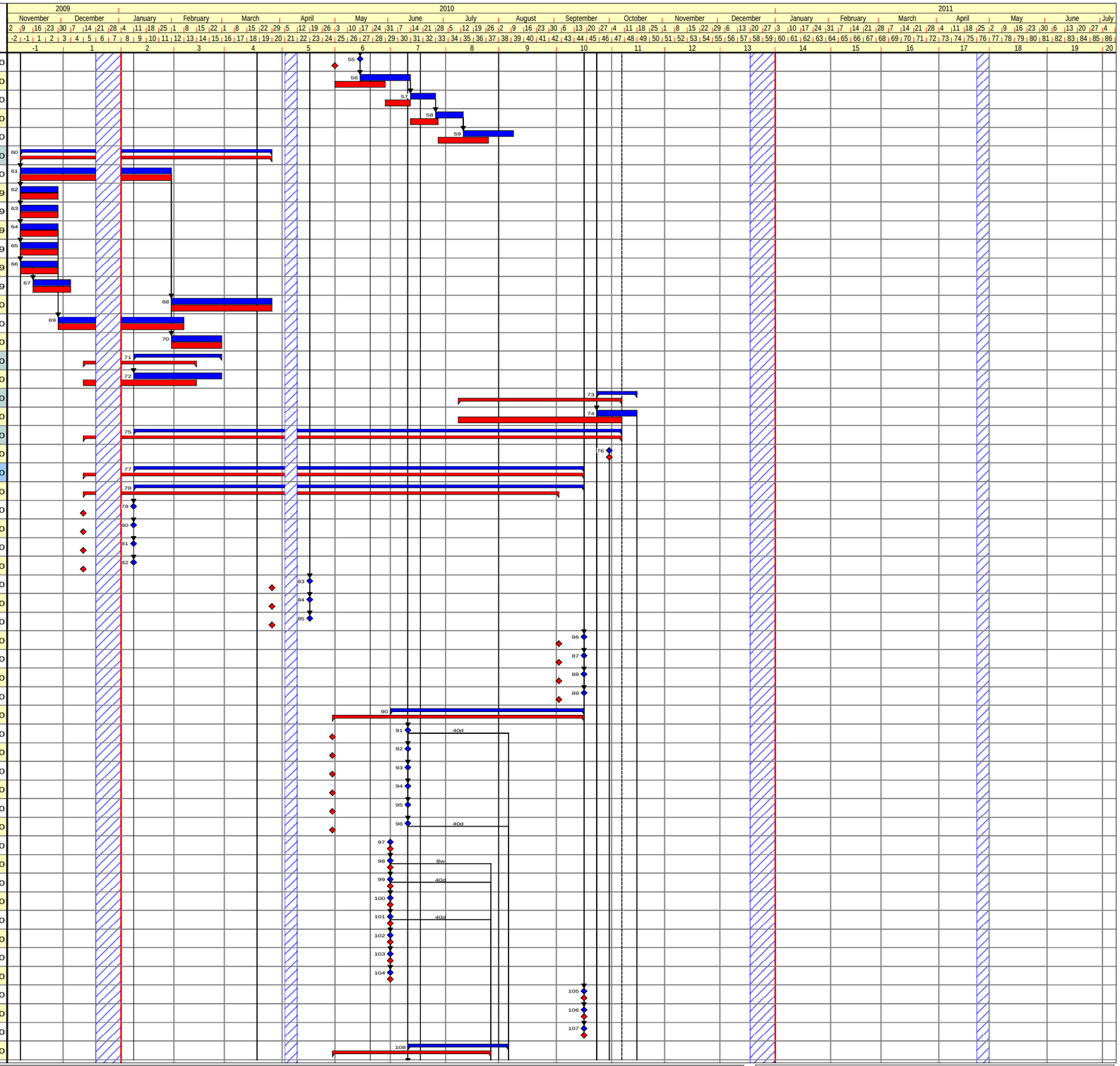
Brookfield

New South Glasgow Hospitals Project

Stage 2 Design Development to Full Business Case

Brookfield

Line	Activity	Start	Duration	End
55	Board Sign -off RDD schedule	17/05/2010		17/05/2010
56	Produce RDD programme	17/05/2010	4ew	11/06/2010
57	Board review RDD programme	14/06/2010	2ew	25/06/2010
58	Revise and agree RDD programme	28/06/2010	2ew	12/07/2010
59	Agree programme for mock-ups	13/07/2010	4ew	09/08/2010
60	**Surveys and Tests**	09/11/2009	20ew	26/03/2010
61	Ground investigation lab tests and reports	09/11/2009	12ew	29/01/2010
62	Hyrdrological survey	09/11/2009	3ew	27/11/2009
63	Watercourse condition survey	09/11/2009	3ew	27/11/2009
64	Survey existing services infrastructure & diversion routes	09/11/2009	3ew	27/11/2009
65	Survey existing drains	09/11/2009	3ew	27/11/2009
66	Topographical survey	09/11/2009	3ew	27/11/2009
67	Tree survey and report	16/11/2009	3ew	04/12/2009
68	Existing condition survey and dilapidation report	01/02/2010	8ew	26/03/2010
69	Asbestos survey	30/11/2009	10ew	05/02/2010
70	Existing background noise survey	01/02/2010	4ew	26/02/2010
71	**Set Up Joint Steering Groups**	11/01/2010	7ew	26/02/2010
72	Set up Joint Steering Groups	11/01/2010	7ew	26/02/2010
73	**Financial Reviews**	24/09/2010	3ew	15/10/2010
74	Financial model reviews	24/09/2010	3ew	15/10/2010
75	**Design Development Programme Documents as per Appendix K**	11/01/2010	39ew	08/10/2010
76	Contractors Proposal report demonstrating compliance	01/10/2010		01/10/2010
77	Architectural	11/01/2010	36ew	17/09/2010
78	*Drawings*	11/01/2010	36ew	17/09/2010
79	Location plan 1:1250	11/01/2010		11/01/2010
80	Existing site plan 1:500	11/01/2010		11/01/2010
81	Proposed site plan 1:500	11/01/2010		11/01/2010
82	Setting out plan 1:500	11/01/2010		11/01/2010
83	General arrangement floor and roof plans 1:100 / 1:50	19/04/2010		19/04/2010
84	General arrangement elevations 1:100 / 1:50	19/04/2010		19/04/2010
85	General arrangment sections 1:100 / 1:50	19/04/2010		19/04/2010
86	Key elevations for special areas 1:50 (see user group process above)	17/09/2010		17/09/2010
87	Fire drawings 1:50 (see user group process above)	17/09/2010		17/09/2010
88	Internal departmental layout plans 1:50 (see user group process above)	17/09/2010		17/09/2010
89	Fully loaded 1:50 room layouts and RDS (see user group process above)	17/09/2010		17/09/2010
90	*NBS Specification*	02/06/2010	15ew	17/09/2010
91	Roof coverings	11/06/2010		11/06/2010
92	Roof drainage	11/06/2010		11/06/2010
93	Roof lights	11/06/2010		11/06/2010
94	External walls	11/06/2010		11/06/2010
95	Windows	11/06/2010		11/06/2010
96	External doors	11/06/2010		11/06/2010
97	Internal walls and partitions	02/06/2010		02/06/2010
98	Internal doors	02/06/2010		02/06/2010
99	Wall finishes	02/06/2010		02/06/2010
100	Floor finishes	02/06/2010		02/06/2010
101	Ceiling finishes	02/06/2010		02/06/2010
102	Stair finishes	02/06/2010		02/06/2010
103	Stair balustrades & handrails	02/06/2010		02/06/2010
104	Works of Art	02/06/2010		02/06/2010
105	Fittings, fixtures & furniture	17/09/2010		17/09/2010
106	Soft furnishings	17/09/2010		17/09/2010
107	Sanitary appliances (in relation to Group 1 appliances identified in the Equipment List)	17/09/2010		17/09/2010
108	*Product Information*	11/06/2010	8ew	06/08/2010



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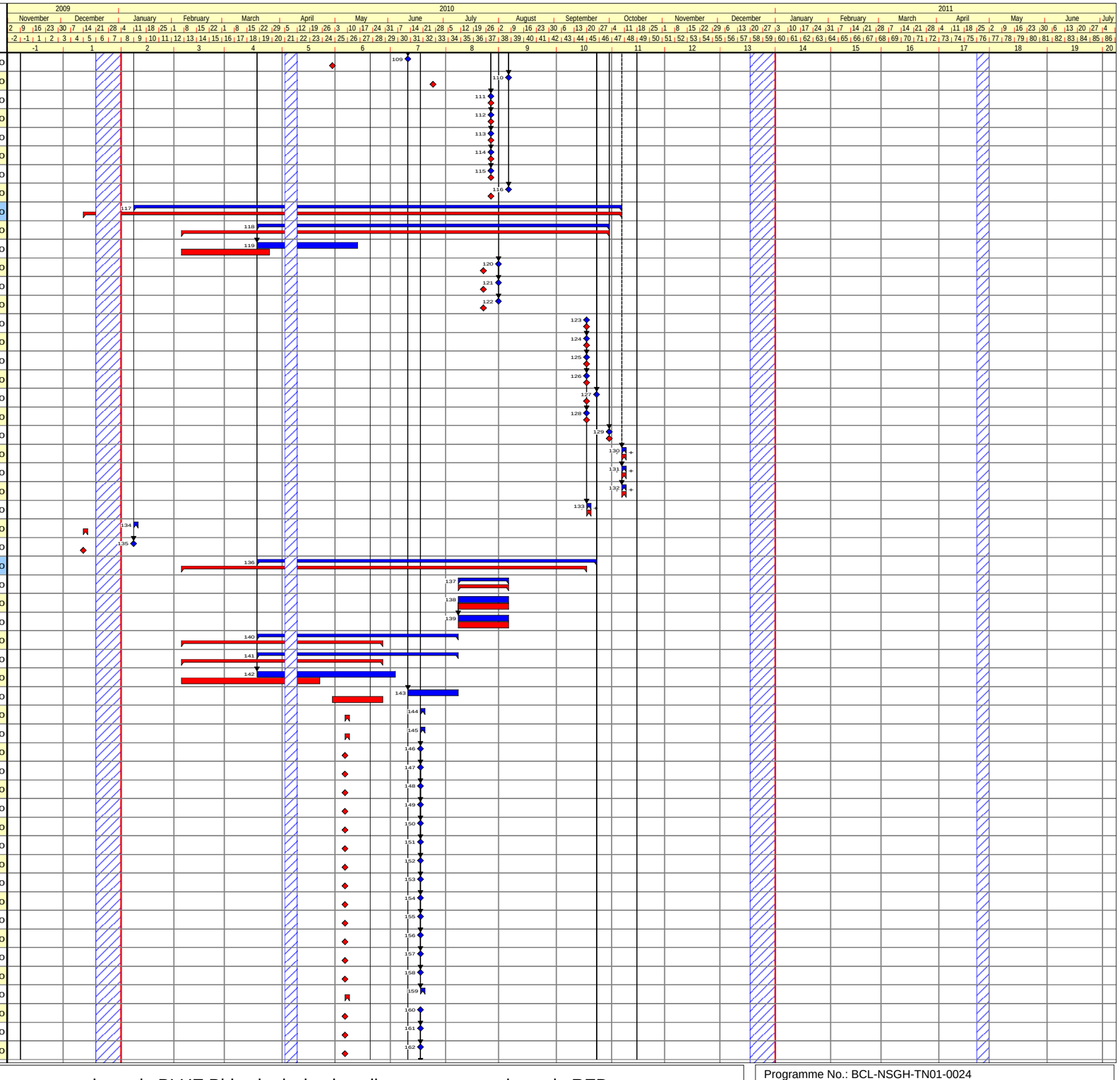
Brookfield

New South Glasgow Hospitals Project

Stage 2 Design Development to Full Business Case

Brookfield

Line	Activity	Start	Duration	End
109	Cladding / Curtain Walling / Windows	11/06/2010		11/06/2010
110	Roof Coverings	06/08/2010		06/08/2010
111	Vinyl Flooring	28/07/2010		28/07/2010
112	Carpet	28/07/2010		28/07/2010
113	Ceiling systems	28/07/2010		28/07/2010
114	Internal Doors	28/07/2010		28/07/2010
115	Ironmongery	28/07/2010		28/07/2010
116	External doors & screens	06/08/2010		06/08/2010
117	M&E Services Systems	11/01/2010	39ew	08/10/2010
118	General Documents	19/03/2010	28ew	01/10/2010
119	Input for Detailed Planning and Building Regulation Compliance	19/03/2010	8ew	13/05/2010
120	Full dynamic modelling of building environment	02/08/2010		02/08/2010
121	Condensation analysis	02/08/2010		02/08/2010
122	CLG Approved National Calculation Methodology Tool Compliance report	02/08/2010		02/08/2010
123	Design calculations	20/09/2010		20/09/2010
124	Acoustic report	20/09/2010		20/09/2010
125	Environmental proving proposals of all systems	20/09/2010		20/09/2010
126	CDM Risk assessment and detailed design statement	20/09/2010		20/09/2010
127	Fully integrated asset management system	24/09/2010		24/09/2010
128	Commissioning settings incl microbiological testing proposals.	20/09/2010		20/09/2010
129	Compliance with ER's report	01/10/2010		01/10/2010
130	Schematics Drawings	08/10/2010		08/10/2010
131	Detailed Drawings	08/10/2010		08/10/2010
132	Specifications	08/10/2010		08/10/2010
133	Component Product & Manufacturer Schedule	20/09/2010		20/09/2010
134	Lift Installation	11/01/2010		11/01/2010
135	Lift installation proposals	11/01/2010		11/01/2010
136	Civils and Structural	19/03/2010	27ew	24/09/2010
137	*General External Infrastructure Works*	09/07/2010	4ew	05/08/2010
138	Schedule of roads & drainage information for submission on completion of works	09/07/2010	4ew	05/08/2010
139	1:500 drainage phasing / temporary works plans	09/07/2010	4ew	05/08/2010
140	*Roads*	19/03/2010	16ew	08/07/2010
141	Documents	19/03/2010	16ew	08/07/2010
142	Stage 1 and Stage 2 Road Safety Audit	19/03/2010	11ew	03/06/2010
143	Specification for Roads and Hardstanding	11/06/2010	4ew	08/07/2010
144	Drawings	18/06/2010		18/06/2010
145	1:500	18/06/2010		18/06/2010
146	Curve radii	18/06/2010		18/06/2010
147	Corner radii	18/06/2010		18/06/2010
148	Swept path analysis on bus routes and service accesses	18/06/2010		18/06/2010
149	Pedestrian crossings	18/06/2010		18/06/2010
150	Footways, Cycleways, Cycletracks	18/06/2010		18/06/2010
151	Carriageway, footway and cycleway widths	18/06/2010		18/06/2010
152	Car parking arrangements with distribution of spaces and use identified	18/06/2010		18/06/2010
153	Areas of differing carriageway construction	18/06/2010		18/06/2010
154	Traffic signs and road markings	18/06/2010		18/06/2010
155	Kerbing layouts	18/06/2010		18/06/2010
156	Roads draiange system	18/06/2010		18/06/2010
157	All crossfalls superelevation and cambers	18/06/2010		18/06/2010
158	Indicative signalised layouts at external roads	18/06/2010		18/06/2010
159	Typical Sections (to appropriate scale)	18/06/2010		18/06/2010
160	Carriageway construction	18/06/2010		18/06/2010
161	Capping provision	18/06/2010		18/06/2010
162	Footway / cycleway construction	18/06/2010		18/06/2010



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New South Glasgow Hospitals Project

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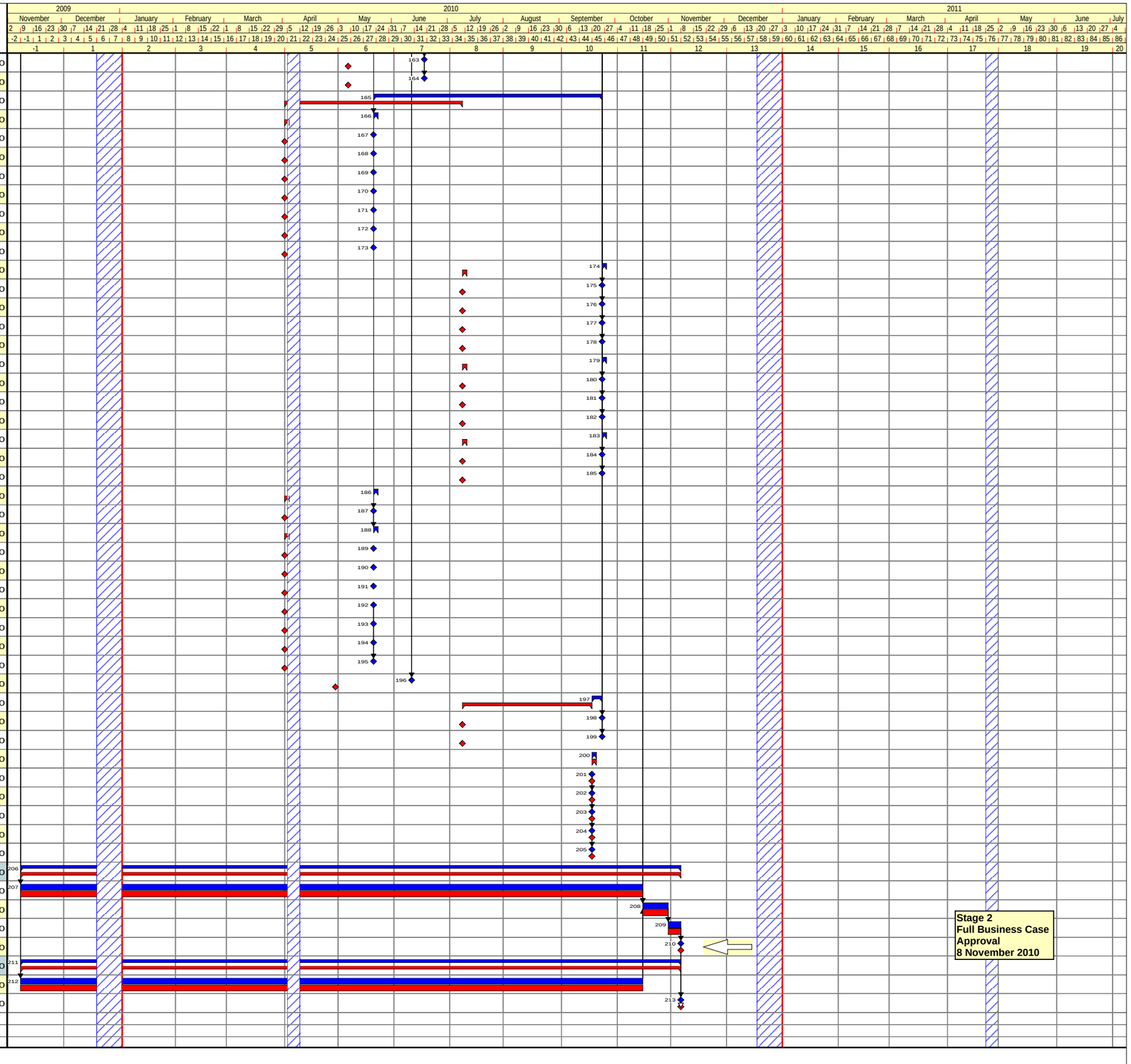
Brookfield

Line	Activity	Start	Duration	End
163	Pedestrian crossing point arrangement	18/06/2010		18/06/2010
164	Kerb types	18/06/2010		18/06/2010
165	*Drainage*	21/05/2010	18ew	24/09/2010
166	Documents	21/05/2010		21/05/2010
167	Flood risk assessment	21/05/2010		21/05/2010
168	Flood risk strategy	21/05/2010		21/05/2010
169	Drainage management strategy	21/05/2010		21/05/2010
170	Drainage maintenance schedule	21/05/2010		21/05/2010
171	Calculations for the whole sewerage system	21/05/2010		21/05/2010
172	Calculations in support of upgrading of culverts in the site	21/05/2010		21/05/2010
173	Specification for drainage works and proposals for redundant drainage	21/05/2010		21/05/2010
174	SEPA approval	24/09/2010		24/09/2010
175	SUDS strategy	24/09/2010		24/09/2010
176	Flood risk assessment	24/09/2010		24/09/2010
177	Proposals for discharge to the watercourse	24/09/2010		24/09/2010
178	Proposals for re-alignment of the watercourses	24/09/2010		24/09/2010
179	Scottish Water approval /support of the following:	24/09/2010		24/09/2010
180	Flood risk assessment	24/09/2010		24/09/2010
181	Proposals for discharge to the watercourse	24/09/2010		24/09/2010
182	Proposals for re-alignment of the watercourses	24/09/2010		24/09/2010
183	Glasgow City Council approval /support of the following:	24/09/2010		24/09/2010
184	Flood risk assessment	24/09/2010		24/09/2010
185	Flood risk management strategy	24/09/2010		24/09/2010
186	Drawings	21/05/2010		21/05/2010
187	1:1250 Drainage in support of SUDS and Drainage strategy	21/05/2010		21/05/2010
188	1:500's	21/05/2010		21/05/2010
189	Culvert upgrade	21/05/2010		21/05/2010
190	Amedments to public sewerage system	21/05/2010		21/05/2010
191	Layouts of roads and buildings	21/05/2010		21/05/2010
192	Layout of sewers, outfalls, underground storage and SUDS features	21/05/2010		21/05/2010
193	Long chainage sections showing full details	21/05/2010		21/05/2010
194	Structures or trees <10m high within 10m of proposed drainage	21/05/2010		21/05/2010
195	Details Chamber and pipe bedding details	21/05/2010		21/05/2010
196	Traffic Management Strategy Written statement on maintaining access	11/06/2010		11/06/2010
197	Acute Adults & Children's Hospital Car Parks, Laboratory and Energy Centre	20/09/2010	1ew	24/09/2010
198	Design Philosophy statement	24/09/2010		24/09/2010
199	Drawings Stage E tender status (minimum)	24/09/2010		24/09/2010
200	Specifcations	20/09/2010		20/09/2010
201	Substructure	20/09/2010		20/09/2010
202	Frame	20/09/2010		20/09/2010
203	Upper Floors	20/09/2010		20/09/2010
204	Roof Structure	20/09/2010		20/09/2010
205	Stair structure	20/09/2010		20/09/2010
206	Full Business Case (FBC) Approval Process	09/11/2009	52ew	08/11/2010
207	Board Prepare the Full Business Case	09/11/2009	49ew	15/10/2010
208	Board FBC Approval	18/10/2010	2ew	29/10/2010
209	OGC Gateway 3 Review Point - (Investment Decision)	01/11/2010	1ew	05/11/2010
210	FBC Approval	08/11/2010		08/11/2010
211	Project Agreement	09/11/2009	52ew	08/11/2010
212	Review PA documents	09/11/2009	49ew	15/10/2010
213	Sign Project Agreement	08/11/2010		08/11/2010



Baselines

Stage 2 bid submission baseline

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New South Glasgow Hospitals Project
Bid Submission Clarifications
Bidder: 1
Commercial Clarification: 3 (issued 8th October 2009)

PRIVATE & CONFIDENTIAL

Item	Board Clarification	Bidder Response
NEW ITEM	Board verbal request from Commercial Meeting held 9th October 2009. - a) Review of Labs risk and prelims pricing including sub contractor prelims;	Further to the meeting on Friday 9th October, we have reconsidered the pricing of Stage 1 works in order to reflect the true cost of the Labs as a stand alone project. The impact of this review (excluding the cost of the incoming utilities c£3.7m) reduces the Stage 1 Labs Target cost from £79.9m to £71.9m. (We attach for ease of reference a breakdown of the adjusted sums. **CSA summary**) Previously our priced submission included for an element of site wide works that we considered would be of overall benefit to the project. The cost of these works and risks have now been reallocated to Stages 2 and 3 but in overall terms our total Target Price remains substantially the same as our original bid (now £575.6m). As indicated in our response to item 3 below, please find attached revised **MPTC calculator** as requested.

NEW ITEM	Board verbal request from Commercial Meeting held 9th October 2009. - a) Request for information used to populate Monte Carlo; - b) Re-issue Stage 2 programme removing period for judicial review; - c) Clarification of £750k bond for s.75 works included or excluded from bid. - d) specific items risk review	Brookfield confirm the following: a) Please find attached information as requested. **(Monte Carlo assumptions)** b) Please find attached revised **Stage 2 programme** amended as requested. c) We confirm that £750,000 was NOT included in our bid submission as directed by the Board as this remains with the Board. d) Further to the meeting on Friday 9th Oct we enclose commentary on the specific risks as requested. (**Specific Risk items)**
1	Your technical detail and elemental cost summaries would indicate Interstitial Blinds are only being provided to external windows in the Critical Care Wards. Is this correct? The ITPD Volume 2 Section 7.11.2(d) stated the Contractor shall provide integral blinds to windows, curtain walling. If not provided can you confirm the technical and financial impact to your offer to provide same in all patient areas.	Brookfield have reviewed our submission and subsequently we are able to confirm in this clarification our submission now includes for integral blinds to windows, curtain walling (and internal screens) in the locations set out on the attached drawings: Privacy Control Strategy - **Ground Floor Plan** - **First Floor Plan** - **Second Floor Plan** - **Third Floor Plan** - **Fourth Floor Plan** - **Typical Ward Tower Plan** We confirm that the cost for these blinds are now included within our revised Stage 3 price.

2	Can you confirm that the full requirements for Clean rooms, namely Pharmacy Aseptic Suite and Endoscopy Decontamination / Reprocessing have been included in your design proposals and financial offer	Brookfield confirm that the full requirements for Clean Rooms has been included within our design proposals and financial offer subject to any items of equipment required to be provided by the Board pursuant to the ITPD requirements.
3	Your pricing proposals in Section 12.2 deviate from the requirements of the Contract. Can you confirm that this is the intention and that the contract conditions should be amended accordingly	Further to the meeting held on Friday 9th October 2009 Brookfield can confirm that we have reconsidered the MPTC Calculator submitted within Section 12.2 of the proposals and attach herewith a revised version that with the Contract Conditions albeit we note that for the purpose of clarification that the % additions included with Stage 2 pricing are at variance with the other Stages due to the fact that Brookfield ascertained sum for Overhead and Profits has been calculated against net cost prior to Design Fees. We apologise for any confusion our previous submission may have caused. We would also note that this revised “calculator” also reflects the revised amounts indicated within our response to Commercial Clarification No.1 (RFI 007) along with a review of Stage 1 pricing to reflect our response to item 4 below and also other preliminary cost savings arising out of Stage 1 Completion Date being January 2012.
4	Your Stage 1 Target Price has a disproportionate value for risk compared to Stage 3 and overall cost figure is greater than what it is considered the Laboratory outturn cost may be. Please confirm cost issues resulting in increased cost and risk estimate.	As per discussion at the meeting held on Friday 9th October 2009 Brookfield have now reviewed the risk for Stage 1, 2 and 3 and re-assessed and re-distributed the amounts appropriately. In particular we would draw you attention to Stage 2 risk schedule where we believe it should more appropriately be apportioned to Stage 3 works where the actual costs would be incurred.

		We also enclose for ease of reference a revised **Stage 1 risk schedule**.
5	Your offer states that the content of the offer will substitute the ITPD works Information. This would change the ITPD documentation order of precedence as stated in the Contract. Why has this been proposed and what risk transfer does it pass back to the Board in compliance with Mandatory HTM / SHTM standards.	Brookfield understood pursuant to Commercial Dialogue Meetings held that it was the Board intention to substitute any resultant design engineering undertaken by the bidders against the Exemplar Design included within the ITPD and include such design within the revised Contract Works Information in order to avoid any subsequent discrepancies between the Exemplar design and the current priced design proposals included within Volumes 2 and 3 of our bid submission. However, for the avoidance of doubt, Brookfield confirm that there will be no risk transfer back to the Board as a result of this process and that Brookfield accept they have full obligation under the contract to comply with all indicated mandatory standards.
6	Your response to Commercial Clarification 2.6 referred to use of Subguard insurance. Can you confirm that this is part of your offer.	As discussed at the meeting held on Friday 9th October 2009 Brookfield can confirm that we continue to investigate the option to instigate the Subguard Insurance Policy on this Project. However we are still in the process of working with Zurich in order to conclude the due diligence obligations required prior to being accepted under any such Policy and as such can confirm that the offer submitted currently allows for procurement of standard Performance Bonds for all key subcontractors employed on the Project. Should we subsequently be offered an opportunity to purchase the Subguard Insurance Policy then, subject to this being available on reasonable terms and conditions that are at least

		"cost neutral" to the Board then we this policy can be discussed with you further.
7	Your response to Commercial Clarification 1.1 noted Completion Date for Children's Hospital would be 20th September 2013. This seeks to introduce another Stage / Sectional Completion to the contract and introduces issues around operational handover, defects periods etc. The early completion date is not required. Please confirm any impact on your offer of maintaining the original Stage 3 Completion date for both the Adult & Children's Hospitals	Brookfield note the Boards requirements and confirm that we do not propose to introduce another Stage or Sectional Completion to the Project in connection with completion of the Children's Hospital. For avoidance of doubt the Completion Date for Stage 3 (including the Children's Hospital) will be 31st Jan 2015. With regard to any cost impact over and above the £1,068,000 already identified to the Board in Commercial Clarification No 1, this has been included in our revised price.
8	Your Stage 2 Programme includes a period for Judicial Review. During Dialogue the Board indicated, and confirmed in Board Risk Register, that it would accept risk of Planning Application periods exceeding Statutory timescales. Why have you included a Judicial Review period as it considerably shortens design period to submit planning application.	As discussed at the meeting held on Friday 9th October 2009 Brookfield enclose herewith a revised Programme for Stage 2 Works that has removed any period for Judicial Review on the basis that such risk remains an Employer Risk under the contract.

TENDER SUMMARY

PROJECT :	SOUTH GLASGOW HOSPITAL (Stage 1 Works - Labs Building)	TENDER CLOSING : 11 SEPT 09	
LOCATION :	GLASGOW	ESTIMATOR : DOIG AND SMITH	
ARCHITECT :	NIGHTINGALE ASSOCIATES		

TRADE	MPX BUDGET	SUBBIE 1	SUBBIE 2	SUBBIE 3	SUBCONTRACTOR	SUBMITTED	REVISED	Explanation of Change in Price
SUBSTRUCTURE								
Piling Works					Skanska	£ 2,960,773.00	£ 2,960,773.00	
Groundworks, Pile Caps etc.					Dunne	£ 5,312,238.00	£ 5,312,238.00	
SUPERSTRUCTURE :								
Frame					Dunne	£ 1,684,196.00	£ 1,684,196.00	
Upper Floors					Dunne	£ 2,658,178.00	£ 2,658,178.00	
Roofs					Dunne and Grainger Roof (Green Roof)	£ 1,808,594.00	£ 1,808,594.00	
Architectural Steel Stairs	Doig and Smith					£ 628,100.00	£ 628,100.00	
External Walls:								
Brick and Blockwork	Doig and Smith					£ 347,527.00	£ 347,527.00	
Louvres	Doig and Smith					£ 984,300.00	£ 984,300.00	
Rainscreen Cladding	Doig and Smith					£ 1,686,268.00	£ 1,686,268.00	
Glazing	Doig and Smith					£ 807,350.00	£ 807,350.00	
Curtain Walling	Doig and Smith					£ 666,180.00	£ 666,180.00	
Copper Cladding	Doig and Smith					£ 952,140.00	£ 952,140.00	
Secondary Steelwork to Clad Areas	Doig and Smith					£ 104,679.00	£ 104,679.00	
Windows and Ext Doors	Doig and Smith					£ 770,006.00	£ 770,006.00	
Internal Drywalls and Partitions	Doig and Smith					£ 3,024,204.00	£ 3,024,204.00	
Internal Doors					Swift Horsman Rates	£ 757,188.00	£ 757,188.00	
INTERNAL FINISHES:								
Wall Finishes	Doig and Smith					£ 630,323.00	£ 630,323.00	
Floors Finishes	Doig and Smith					£ 1,178,164.00	£ 1,178,164.00	
Ceiling Finishes					Swift Horsman Rates	£ 954,134.00	£ 954,134.00	
FITTING AND FURNISHINGS:								
All Fittings and Furnishings						£ 3,155,157.00	£ 3,155,157.00	
SERVICES:								
Mechanical Installations:								
Sanitaryware					Mercury	£ 432,834.00	£ 432,834.00	
Disposal Installations					Mercury	£ 574,000.00	£ 574,000.00	
Water Installations					Mercury	£ 1,097,899.00	£ 1,097,899.00	
Heat Source					Mercury	£ 8,424,257.00	£ 8,424,257.00	
Fuel Installations					Mercury	£ 94,354.00	£ 94,354.00	
Fire Fighting and Lightning Protection					Mercury	£ 79,581.00	£ 79,581.00	
Special Installations					Mercury	£ 557,040.00	£ 557,040.00	
Electrical Installations:								
Mains and Sub-Mains Installation					Mercury	£ 3,790,278.00	£ 3,790,278.00	
Communications Installations					Mercury	£ 3,981,165.00	£ 2,768,965.00	Reduction for Error in Communications Pricing as per Commercial 1
Lift and Conveyor Installations					Schindlers	£ 1,505,710.00	£ 1,505,710.00	
Builderswork In Connection					Equates to 3.6%	£ 998,135.00	£ 998,135.00	
EXTERNAL WORKS								
Site Works	Doig and Smith					£ 1,145,278.00	£ 1,145,278.00	
Drainage					Dunnes	£ 555,055.00	£ 555,055.00	
External Services						£ 59,607.00	£ 59,607.00	
Minor Building Works						£ -	£ -	
DIRECT SUBCONTRACTOR PRELIMS								
Substructure, Frame and Upper Floors						£ 2,501,708.00	£ 1,826,708.00	Reduction in Prelims post meeting 9th Oct 09
Piling						£ 105,241.00	£ 105,241.00	
Roof and Drainage						£ 226,309.00		Reduction in Prelims post meeting 9th Oct 09
Stairs								
Ext Walls						£ 1,119,689.00	£ 619,689.00	Reduction in Prelims post meeting 9th Oct 09
Ext Doors and Windows						£ 77,000.00		Reduction in Prelims post meeting 9th Oct 09
Int Walls and Partitions						£ 283,050.00		Reduction in Prelims post meeting 9th Oct 09
Int Doors						£ 75,719.00		Reduction in Prelims post meeting 9th Oct 09
Wall Finishes						£ 118,614.00		Reduction in Prelims post meeting 9th Oct 09
Floor Finishes						£ 117,817.00		Reduction in Prelims post meeting 9th Oct 09
Ceiling Finishes						£ 95,414.00		Reduction in Prelims post meeting 9th Oct 09
Fixtures and Fittings								
M+E Services						£ 2,146,021.00	£ 1,403,200.00	Reduction in Prelims post meeting 9th Oct 09
Other Doig & Smith						£ 264.00	£ 264.00	
Less - Buying Opportunities								
Original Target Opportunities (2%)						-£ 1,224,634.76	-£ 1,142,155.88	
Additional Money from Astins across whole Project but taken out of Labs at BCL risk prior to FBC							-£ 450,000.00	
					Sub Total	**£ 60,007,103.24**	**£ 55,515,638.12**	
	TRADE ESCALATION				0.00%	£ -	£ -	
					Sub Total	£ 60,007,103.24	£ 55,515,638.12	
	Risk Allowance as per Doig And Smith Risk Schedule					£ 3,578,282.40	£ 2,205,000.00	
					Sub Total	£ 63,585,385.64	£ 57,720,638.12	
	PRELIMINARIES					£ 10,005,478.00	£ 8,956,055.00	
					Sub Total	£ 73,590,863.64	£ 66,676,693.12	
	CONSULTANT FEES					£ 1,497,800.00	£ 1,156,800.00	
					Sub Total	£ 75,088,663.64	£ 67,833,493.12	
	OVERHEAD					£ 3,173,802.58	£ 2,641,618.12	
	AGREED PROFIT				2.20%	£ 1,651,950.60	£ 1,492,336.85	
					TOTAL	**£ 79,914,416.82**	**£ 71,967,448.09**	

NEW SOUTH GLASGOW HOSPITALS
MAXIUM PRICE TARGET COST PROPOSALS
Final Adjusted to Reconciled CSA (Corrected and Reviewed against Clarifications Issued)

BIDDER NAME **BROOKFIELD**

insert information in cells highlighted yellow

Stage 1 - Design & Construct Laboratory

Estimate of Defined Cost		£67,696,600.70
Incoming Utility Costs for Stage 1		£3,480,000.00
Accepted Risk Allowance		£2,205,000.00
Deduct Buying Opportunities/Additional Increased Cost		-£2,068,108.00
Sub-total		£71,313,492.70
Fee (Overhead Element)	3.92%	£2,794,921.97
TARGET COST		£74,108,414.67
Fee (Profit Element) - TARGET PROFIT	2.20%	£1,568,896.84
TARGET PRICE		£75,677,311.51
Maximum Risk Allowance		£945,000.00
Add Opportunities not realised/additional increased cost		£2,068,108.00
Additional Fee and Profit on Max Cost		£0.00
MAXIMUM COST		£78,690,419.51
Contractor Percentage Share of Pain	75.00%	
Employer Percentage Share of Pain	25.00%	
MAXIMUM PRICE		**£76,430,588.51**

NOTE THE REDUCTION CALCULATIONS FOR THE MAX TEMPERATURE PROVISION
HAVE BEEN ATTACHED WITH THE FORM OF TENDER IN A SEPARATE ENVELEOPE
AS INSTRUCTED FORM OF TENDER EMAIL 2ND SEPTEMBER 2009

Stage 2 - FBC Design

Estimate of Defined Cost		£17,636,947.00
Accepted Risk Allowance		
Deduct Buying Opportunities/Additional Increased Cost		£0.00
Sub-total		£17,636,947.00
Fee (Overhead Element)	0.93%	£163,263.51
TARGET COST		£17,800,210.51
Fee (Profit Element) - TARGET PROFIT	0.29%	£50,475.18
TARGET PRICE		£17,850,685.69
Maximum Risk Allowance		£0.00
Add Opportunities not realised/additional increased cost		£0.00
Additional Fee and Profit on Max Cost		£0.00
MAXIMUM COST		£17,850,685.69
Contractor Percentage Share of Pain	75.00%	
Employer Percentage Share of Pain	25.00%	
MAXIMUM PRICE		**£17,850,685.69**

Stage 2 - FBC Design (Reduction to Costs if Maximum tempearture Provision is omitted)

Estimate of Defined Cost		
Accepted Risk Allowance		
Sub-total		£0.00
Fee (Overhead Element)		£0.00
TARGET COST		£0.00
Fee (Profit Element) - TARGET PROFIT		£0.00
TARGET PRICE		£0.00
Maximum Risk Allowance		
MAXIMUM COST		£0.00
Contractor Percentage Share of Pain		
Employer Percentage Share of Pain	100.00%	
MAXIMUM PRICE		**£0.00**

Stage 3 - New Hospitals Construction

Estimate of Defined Cost		£451,858,363.06
Accepted Risk Allowance		£16,644,459.30
Deduct Buying Opportunities/Additional Increased Cost		-£19,148,855.00
Sub-total		£449,353,967.36
Fee (Overhead Element)	4.12%	£18,519,912.57
TARGET COST		£467,873,879.93
Fee (Profit Element) - TARGET PROFIT	2.20%	£9,885,787.28
TARGET PRICE		£477,759,667.21
Maximum Risk Allowance		£7,133,339.40
Add Opportunities not realised/additional increased cost		£19,148,855.00
Additional Fee and Profit on Max Cost		£0.00
MAXIMUM COST		£504,041,861.61
Contractor Percentage Share of Pain	75.00%	
Employer Percentage Share of Pain	25.00%	
MAXIMUM PRICE		**£484,330,215.81**

Stage 3 - New Hospitals Construction (Reduction to Costs if Maximum tempearture Provision is omitted)

Estimate of Defined Cost		
Accepted Risk Allowance		
Sub-total		£0.00
Fee (Overhead Element)		£0.00
TARGET COST		£0.00
Fee (Profit Element) - TARGET PROFIT		£0.00
TARGET PRICE		£0.00
Maximum Risk Allowance		
MAXIMUM COST		£0.00
Contractor Percentage Share of Pain		
Employer Percentage Share of Pain	100.00%	
MAXIMUM PRICE		**£0.00**

Stage 3A - Landscaping Completion

Estimate of Defined Cost		£4,146,455.00
Accepted Risk Allowance		£83,735.40
Deduct Buying Opportunities/Additional Increased Cost		-£84,618.00
Sub-total		£4,145,572.40
Fee (Overhead Element)	2.79%	£115,557.83
TARGET COST		£4,261,130.23
Fee (Profit Element) - TARGET PROFIT	2.20%	£91,202.59
TARGET PRICE		£4,352,332.82
Maximum Risk Allowance		£35,886.60
Add Opportunities not realised/additional increased cost		£84,618.00
Additional Fee and Profit on Max Cost		£0.00
MAXIMUM COST		£4,472,837.42
Contractor Percentage Share of Pain	75.00%	
Employer Percentage Share of Pain	25.00%	
MAXIMUM PRICE		**£4,382,458.97**

SUMMARY	
TARGET COST	£564,043,635.34
TARGET PROFIT	£11,596,361.89
TARGET PRICE	£575,639,997.23
MAXIMUM COST	£605,055,804.23
MAXIMUM PRICE	£582,993,948.98
% Difference between Target & Maximum Price	1.28%

SUMMARY	
TARGET COST	£0.00
TARGET PROFIT	£0.00
TARGET PRICE	£0.00
MAXIMUM COST	£0.00
MAXIMUM PRICE	£0.00
% Difference between Target & Maximum Price	#DIV/0!

Risk				Inherent Assessment				Response			Residual Assessment						
Item	Category	Description	Risk Effect	P 1-5	I 1-5	PI Score	Strategy	Risk control measure or action taken to mitigate	Action Owner	When	P 1-5	I 1-5	PI Score	Strategy	£	Revised Risk	Difference
B1	Business	Advance payments for material orders	Prices decrease; material wastage; storage costs; increased insurance costs	2	3	6	Acceptable	Prudent advance purchase of programme critical and cost sensitive materials for energy centre / equipment / etc	Brookfield	Stage 1	1	3	3	Acceptable	£ 75,000.00	£ 50,000.00	£ 25,000.00
B2	Business	Availability of suitable labour resource and impact on procurement of various packages	Delay to the project and increased costs.	3	3	9	Undesirable	Ensure that labour resources are planned for through use of labour resource histograms etc. Ensure good relationships with DWP. Consider procurement strategy in orde	Brookfield	Stage 1	1	3	3	Acceptable	£ 50,000.00	£ 10,000.00	£ 40,000.00
B3	Business	Calculation of disallowable costs	Project disputes arise and costs increase	3	3	9	Undesirable	to ensure work load is balanced across the trades and that key packages are split where there is risk of inadequate resource with one Subcontractor Properly manage the supply chain in order to minimise the opportunity for discussion in regard to disallowable costs.	Brookfield	Stage 1	1	3	3	Acceptable	£ 50,000.00	£ 50,000.00	£ -
B4	Business	Change Control and Management of Change protocol by the Contractor through the Supply Chain	Delay to Project and subsequent increase in Defined Cost	2	4	8	Undesirable	Implement Change Control at start of Stage 1	Brookfield	Stage 1	1	3	3	Acceptable	£ 40,000.00	£ 20,000.00	£ 20,000.00
B5	Business	Change in Contractor or Sub-Contractor management personnel	Loss of direction to project.	1	3	3	Acceptable	Ensure suitable management hierarchy in place.	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
B6	Business	Cost escalation given economic climate, prevailing market conditions. Allowance to compensate for movement in component and material costs over and above that which is recoverable against RPI calcs	Increase in Defined costs	3	4	12	Undesirable	Ensure adequate consideration given to risk allowances / procure major works packages early	Brookfield	Stage 1	2	4	8	Undesirable	£ 275,000.00	£ 75,000.00	£ 200,000.00
B7	Business	Cost of extended warranties e.g. Performance bonds, PCGs etc	Increase in Defined costs	1	4	4	Acceptable	Ensure adequate allowance made within budget at outset. Agree terms with supply chain in advance. Seek to agree key Packages requiring bonds and period of bonds and establish by risk analysis the potential to reduce level of bonds and/or timescale for bonds. Consider other Insurance Products on the Market that may provide more economical solution. Where PCG is available from Subcontractor consider option to provide in lieu of bonds. Commercial Dialogue Meeting no 3 it was confirmed that Contractor Bond expires at Completion of each Stage.	Brookfield	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
B8	Business	Deflation	Presents both opportunity to reduce costs but may have a negative impact on commercial viability of supply chain members.	2	3	6	Acceptable	Brookfield team to ensure supply chain is robust	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
B9	Business	Delay damages as a result of much tighter programme initiated by the Board	Cost increase	3	5	15	Unacceptable	Board confirmed at Commercial meeting No 3 the level of damages: Labs £50k/wk.	Brookfield	Stage 1	3	4	12	Undesirable	£ 320,000.00	£ 320,000.00	£ -
B10	Business	Design development and scope creep to meet ER's	Increased costs	3	3	9	Undesirable	Ensure effective change control is in place during contract period	Brookfield	Stage 1	1	3	3	Acceptable	£ 200,000.00	£ 200,000.00	£ -
B11	Business	Incorrect Level of Pricing in the Contractors tender pricing	Increase in Defined Costs	3	5	15	Unacceptable	Benchmarking and market testing of all key elements of Contractor pricing. Peer review and tender settlement meeting. Key Supply Chain input.	Brookfield	Stage 1	2	4	8	Undesirable	£ 150,000.00	£ 50,000.00	£ 100,000.00
B12	Business	Infrastructure surrounding Labs impacting on delivery of programme	Cost increase and time delay	2	4	8	Undesirable	To be monitored during construction	Brookfield	Stage 1	1	3	3	Acceptable	£ 20,000.00	£ 10,000.00	£ 10,000.00
B13	Business	Insolvency of supply chain / suppliers	Increased costs and delay to project	3	4	12	Undesirable	Ensure robust financial checks are undertaken on supply chain prior to appointment and that ownership of materials etc. are managed in accordance with Contract requirements.	Brookfield	Stage 1	2	4	8	Undesirable	£ 250,000.00	£ 150,000.00	£ 100,000.00
B14	Business	Insufficient information to adequately establish defined cost	Cost impact with regard to pain/gain	3	4	12	Undesirable	Robust contract management procedures e.g. change control. Full audits on supply chain	Brookfield	Stage 1	1	4	4	Acceptable	£ 100,000.00	£ 100,000.00	£ -
B15	Business	Insurance excesses not recovered as a consequence of it being a disallowable cost	Cost Increase	1	4	4	Acceptable	Undertake discussions with insurance brokers and supply chain. Subguard.	Brookfield	Stage 1	1	3	3	Acceptable	£ 20,000.00	£ 20,000.00	£ -
B16	Business	Interest rate changes	Costs increase due to inflationary impact	2	4	8	Undesirable	Secure fixed costs for works packages early in procurement process	Brookfield	Stage 1	1	3	3	Acceptable	£ 50,000.00	£ 10,000.00	£ 40,000.00
B17	Business	Material off site payments	Failure to transfer title in goods and leads to loss	2	5	10	Undesirable	Ensure correct paperwork and appropriate management procedures are in place.	Brookfield	Stage 1	1	4	4	Acceptable	£ 30,000.00	£ 30,000.00	£ -
B18	Business	Proper administration of NEC3 contract	Delays to projects, increased costs and damaging to relationships	2	4	8	Undesirable	Set up NEC3 workshops to ensure that it is understood by all and ensure appropriate resources are in place to deliver.	Brookfield	Stage 1	1	3	3	Acceptable	£ 25,000.00	£ 10,000.00	£ 15,000.00
B19	Business	Scope of packages due to inadequate information	Scope missed and leads to increased costs. Package is too large to manage.	2	5	10	Undesirable	Schedule meeting to list all packages and agree scope and apply standard Brookfield procurement processes.	Brookfield	Stage 1	2	3	6	Acceptable	£ 75,000.00	£ 75,000.00	£ -
B20	Business	Step down agreements with sub-contractors	Supply chain members are unable to meet contractual obligations which leads to project delay	2	4	8	Undesirable	Ensure that terms and conditions are pitched at a level appropriate to the specific package of works.	Brookfield	Stage 1	1	3	3	Acceptable	£ 10,000.00	£ 10,000.00	£ -
B21	Business	The impact of incorrect programme and cost estimates for commissioning new building	Increased cost and delay to programme	2	5	10	Undesirable	Commissioning programme and costing to be fully detailed and reviewed.	Brookfield	Stage 1	2	3	6	Acceptable	£ 50,000.00	£ 50,000.00	£ -
B22	Business	Transparency of tender procurement process and out turn	Loss of trust and negative impact on relationships. Failure to agree contract price delays programme	2	4	8	Undesirable	Operate open book collaborative working throughout supply chain.	Brookfield	Stage 1	1	3	3	Acceptable	£ 40,000.00	£ 20,000.00	£ 20,000.00
B23	Business	Unions and Industrial Relations with regard to construction	Poor relationships could lead to delays in the project and increased costs	2	4	8	Undesirable	Ensure full dialogue and engage with Unions at an early stage. Ensure Community Engagement strategy includes Union/Industrial relations	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
B24	Business	Area increase to Labs from OBC	Cost increase and time delay	3	4	12	Undesirable	Implement Change Control at start of Stage 1	Brookfield	Stage 1	2	2	4	Acceptable	£ 100,000.00	£ 20,000.00	£ 80,000.00
B25	Business	Change Control and Management of Change protocol by the Board	Uncontrolled change leads to increased costs delays to programme.	3	4	12	Undesirable	Implement Change Control at start of Stage 1. Change by Board will be a Compensation Event	Brookfield	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
B26	Business	Cost of discharging planning conditions	Cost increase	2	5	10	Undesirable	Early assessment of planning conditions once received	Brookfield	Stage 1	1	3	3	Acceptable	£ 25,000.00	£ 25,000.00	£ -
C1	Construction	Compliance with CAA Regulations during construction	Impact on helicopter and existing aircraft operations which affect hospital function.	2	5	10	Undesirable	Close liaison with the facilities management team during construction works	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
C2	Construction	Construction noise	Stoppages resulting in increased costs. Methods of working result in increased costs e.g. water bursting methods	3	3	9	Undesirable	Examine construction operational procedures and implement appropriate liaison measures.	Brookfield	Stage 1	1	3	3	Acceptable	£ 50,000.00	£ 10,000.00	£ 40,000.00
C3	Construction	Damage to existing / 3rd party buildings due to carrying out of the works e.g. subsidence, heave, vibrations etc.	Damage to property, injury, loss of life all resulting in delays to project and increased costs	2	5	10	Undesirable	Review construction methods, ensure adequate protection in place prior to commencement of works and all method statements approved.	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
C4	Construction	Ground floor slab construction sequencing	Increased costs and programme	2	4	8	Undesirable	Detailed installation plans and methodology to be developed. Costs included in Cost Plan	Brookfield	Stage 1	1	3	3	Acceptable	£ -	£ -	£ -
C5	Construction	Delays to procurement of materials	Delays to project and increased costs	2	4	8	Undesirable	Ensure supply chain adequate to suit size of project and that materials are sourced from a competent source.	Brookfield	Stage 1	1	4	4	Acceptable	£ 50,000.00	£ 25,000.00	£ 25,000.00
C6	Construction	De-watering	Impact on construction works, delays progress and increased costs	3	3	9	Undesirable	Ensure adequate de-watering system in place	Brookfield	Stage 1	2	3	6	Acceptable	£ 50,000.00	£ 50,000.00	£ -
C7	Construction	Disposal of excavated material	Unable to locate local tip leads to increased costs	2	4	8	Undesirable	Tip sourced through supply chain	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
C8	Construction	Disposal of waste	Unable to identify suitable local tip leads to increased costs. Impact on BREEAM rating for failure to classify correctly	2	4	8	Undesirable	Implement waste segregation and implement schemes e.g. SWMP in accordance with current legislation.	Brookfield	Stage 1	1	3	3	Acceptable	£ 10,000.00	£ 10,000.00	£ -
C9	Construction	Failure by Contractor to co-ordinate M&E Installations	Project delays and increased costs	2	4	8	Undesirable	Continue early involvement of M&E supply chain, ensure robust programme management and use of 3D modelling. Consider/implement use of off-site pre-fabrication process.	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
C10	Construction	Failure by Contractor to co-ordinate of M&E services with the building structure	Spatial requirements are inadequate to meet needs of service installations leading to failure of delivery of project	3	4	12	Undesirable	Ensure spatial requirements are agreed and determined early in the programme.	Brookfield	Stage 1	2	4	8	Undesirable	£ 115,000.00	£ 115,000.00	£ -
C11	Construction	Failure to maintain adequate on site security (Project)	Theft, vandalism, fire etc resulting in delays and increased costs	2	4	8	Undesirable	Employ suitable on site security from start of project	Brookfield	Stage 1	1	3	3	Acceptable	£ 15,000.00	£ 15,000.00	£ -
C12	Construction	Inadequacy of O&M Manuals	Complexity in compiling and use	2	4	8	Undesirable	Understanding clients requirements e.g. electronic system and agree appropriate format and content.	Brookfield	Stage 1	1	4	4	Acceptable	£ 50,000.00	£ 50,000.00	£ -
C13	Construction	Delays due to inclement weather	Additional cost and programme delays	3	4	12	Undesirable	Include allowances for minimal delays in target cost	Brookfield	Stage 1	2	4	8	Undesirable	£ 150,000.00	£ 150,000.00	£ -
C14	Construction	Interfaces between external wall and structure	Lack of air tightness and weather permeability and thus non compliance with Section 6 of Building Regs	3	4	12	Undesirable	Quality control during construction	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
C15	Construction	Lack of quality control	Delays to project handover, failure to achieve requisite level	2	4	8	Undesirable	Implement on-site quality control measures and ensure employment of dedicated QA personnel.	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
C16	Construction	Proximity of welfare facilities	Reduction in productivity leading to increased costs and time delays	2	3	6	Acceptable	Through logistics plan developed; implement flexible working arrangements to allow coordinated lunch and tea breaks in accordance with Union regulations.	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
C17	Construction	Quality of sub-contractors to service large work packages	Delays to the project	3	4	12	Undesirable	Ensure supply chain management procedures are followed; split packages where appropriate	Brookfield	Stage 1	1	4	4	Acceptable	£ 35,000.00	£ 15,000.00	£ 20,000.00
C18	Construction	Site safety (CDM etc.)	Death or injury to persons and damage to property resulting in increased costs, delays to the project, insurance claims and legal proceedings etc.	2	5	10	Undesirable	Robust Health & Safety plans, site inductions for all personnel, tool box talks, PPE, method statements, risk statements, hot works permits etc. Appropriate H&S qualifications e.g. CSCS cards.	Brookfield	Stage 1	1	5	5	Acceptable	£ 25,000.00	£ 15,000.00	£ 10,000.00
C19	Construction	The discovery of latent defects in new building after handover	Disruption to operational use of building and increases client management costs. Damage to public perception	2	5	10	Undesirable	Robust quality control measures, building commissioning procedures and appointment of experienced supervisor all led by good design detailing and specifications.	Brookfield	Stage 1	1	5	5	Acceptable	£ 30,000.00	£ 5,000.00	£ 25,000.00
C20	Construction	Roosting nesting season/Bat surveys	Delays to programme if timing not appropriate	2	3	6	Acceptable	RFI 146 refers. NHSGG&C to undertake bat survey Sept 2009 and results will be passed to bidder on contract award. None anticipated	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
C21	Construction	Attendance and/or information relating to group 2-4 equipment	Failure to agree who provides what level of attendance impacts installation resulting in delays to the project and increased costs	3	4	12	Undesirable	Early agreement of attendances required	Brookfield	Stage 1	2	4	8	Undesirable	£ 200,000.00	£ 200,000.00	£ -
C22	Construction	Discovery of unexploded ordinance	Health & Safety implications, time delays and cost increases. Potential impact on existing facilities.	2	5	10	Undesirable	Consideration of probes prior to piling	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
C23	Construction	Restrictions on oversailing of existing buildings influences construction methods e.g. tower cranes	Increases costs and delays to programme due to possible restricted methods of workings	2	4	8	Undesirable	No oversailing included in logistics	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
C24	Construction	Damage to works by Employer or any of its Third Party Consultants and Contractors	Cost/Delay	2	3	6	Acceptable	Attendance and management of direct contracts during construction	Brookfield	Stage 1	1	3	3	Acceptable	£ 20,000.00	£ 20,000.00	£ -
C25	Construction	Dilapidation surveys	Disputes over status of existing facilities prior to works commencing	2	3	6	Acceptable	Ensure full joint survey undertaken and agreed with the Client.	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
C26	Construction	Energy centre - link to retained estate	Interruption to existing facilities	2	5	10	Undesirable	Consider stand-by power generation or review ability to design and construct as part of Stage 1 Works.	Brookfield	Stage 1	1	4	4	Acceptable	£ 50,000.00	stage 3	£ -
C27	Construction	Delays to piling due to obstructions	Additional cost and programme delays	3	4	12	Undesirable	Allow suitable risk allowance based on latest site investigation carried out during Stage 2; Review passing risk to contractor	Brookfield	Stage 3	2	3	6	Acceptable	£ 100,000.00	£ 100,000.00	£ -
D1	Design	Additional Cost of Specialist consultants	Increased Cost	2	3	6	Acceptable	Brookfield management process to be implemented	Brookfield	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
D2	Design	Air Tightness	Loss of BREEAM points, impair building operation and performance	2	3	6	Acceptable	Ensure protocols are in place to manage the construction and testing.	Brookfield	Stage 1	2	3	6	Acceptable	£ 35,000.00	£ 35,000.00	£ -
D3	Design	Polyurethane finish to floor and ceilings to mortuary areas - noted as required at last labs dialogue meeting but not included on room data sheets	Additional cost	2	4	8	Undesirable	Determine requirements early during Stage 1	Brookfield	Stage 1	1	3	3	Acceptable	£ 20,000.00	£ 20,000.00	£ -
D4	Design	Drainage Discharge consent not achieved	Increased costs, time delay and site functions and operations	4	4	16	Unacceptable	Early identification and an understanding of the requirements. Scottish Water	Brookfield	Stage 1	2	4	8	Undesirable	£ 100,000.00	£ 100,000.00	£ -
D5	Design	External detailing of building below expected quality	Client brief not met, delays to building handover, costs increase.	2	4	8	Undesirable	Implement appropriate quality control measures during construction	Brookfield	Stage 1	1	3	3	Acceptable	£ 20,000.00	£ 20,000.00	£ -
D6	Design	General design quality by Contractor	Client brief not met, delays to building handover, costs increase.	3	4	12	Undesirable	Implement appropriate quality control measures during construction	Brookfield	Stage 1	1	3	3	Acceptable	£ 20,000.00	£ 20,000.00	£ -
D7	Design	Inadequacy of emergency generator provisions	Disruption to hospital services including existing buildings	3	4	12	Undesirable	Identify requirements, liaise with Client's external consultants and include within design.	Brookfield	Stage 1	2	3	6	Acceptable	£ 50,000.00	£ 50,000.00	£ -
D8	Design	Inadequate Coordination of design due to short pre-construction period	Increased costs and programme delays	4	4	16	Unacceptable	Ensure design fully coordinated and reviewed prior to works packages commencing on site	Brookfield	Stage 1	2	4	8	Undesirable	£ 150,000.00	£ 100,000.00	£ 50,000.00

Risk				Inherent Assessment				Response			Residual Assessment						
Item	Category	Description	Risk Effect	P 1-5	I 1-5	PI Score	Strategy	Risk control measure or action taken to mitigate	Action Owner	When	P 1-5	I 1-5	PI Score	Strategy	£	Revised Risk	Difference
D9	Design	Late design information from sub-contractors and designers due to short pre-construction period leading to inadequate procurement times and delays or acceleration	Time delays and cost increases	4	5	20	Unacceptable	Ensure good programme management and early appointment of supply chain.	Brookfield	Stage 1	3	5	15	Unacceptable	£ 261,832.00	£ 150,000.00	£ 111,832.00
D10	Design	Poor Design development and management	Uncontrolled change leads to increased costs delays to programme.	2	4	8	Undesirable	Implement Change Control at start of Stage 1	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
D11	Design	Poorly considered innovative design / materials solutions	Lack of knowledge results in poor construction leading to building failure resulting in increased costs and delay.	2	4	8	Undesirable	Ensure all solutions are fully explored	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
D12	Design	Increase to agreed schedule of accommodation: Rooms, circulation, plant rooms, other	Increased costs and time delays	2	3	6	Acceptable	Implement Change Control at start of Stage 1	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
D13	Design	No Group Equipment schedule issued for labs -schedule taken from room data sheets	Increased costs and time delays	3	4	12	Undesirable	Early agreement with novated design team and NSGH Board	Brookfield	Stage 1	2	4	8	Undesirable	£ 120,000.00	£ 120,000.00	£ -
D14	Design	External wall service zone strategy requirements unclear from design information issued	Increased costs and time delays	3	4	12	Undesirable	Early agreement of requirements with novated design team	Brookfield	Stage 1	2	4	8	Undesirable	£ 50,000.00	£ 50,000.00	£ -
D15	Design	Requirement for vulcathene pipework confirmed at final labs dialogue meeting - URS drawings and design indicate polypropylene	Increased costs and time delays	3	4	12	Undesirable	Early agreement of requirements with novated design team	Brookfield	Stage 1	2	4	8	Undesirable	£ 100,000.00	£ 50,000.00	£ 50,000.00
D16	Design	Partition types are noted but no indication of where these are located is included on the drawings or room data sheets	Increased costs and time delays	3	4	12	Undesirable	Early agreement of requirements with novated design team	Brookfield	Stage 1	2	4	8	Undesirable	£ 60,000.00	£ 60,000.00	£ -
D17	Design	Brise soleil requirements unclear from drawings	Increased costs and time delays	3	4	12	Undesirable	Early agreement of requirements with novated design team	Brookfield	Stage 1	2	4	8	Undesirable	£ 20,000.00	£ 20,000.00	£ -
D18	Design	Interface detailing to external walls - a large number of different cladding types	Increased costs and time delays	3	4	12	Undesirable	Managing of interfaces and package contractors during construction	Brookfield	Stage 1	3	3	9	Undesirable	£ 60,000.00	£ 60,000.00	£ -
D19	Design	Implementation of Euro codes and changes to Building Regulations	Increased cost and time	2	3	6	Acceptable	To be considered by Brookfield	Brookfield	Stage 1	1	2	2	Acceptable	£ -	£ -	£ -
D20	Design	Novated design team fees - adequacy	Cost increase	4	4	16	Unacceptable	Review design and scope with novated design team	Brookfield	Stage 1	3	3	9	Undesirable	£ 840,000.00	£ -	£ 840,000.00
E1	Environmental & Sustainability	Achieving BREEAM Excellent	Increased costs. Failure to meet rating leads to bid rejection	3	4	12	Undesirable	Novated design team to liaise with Brookfield's appointed BREEAM consultant to confirm requirements. BREEAM consultant to carry out BREEAM assessment of design.	Brookfield	Stage 1	2	4	8	Undesirable	£ 100,000.00	£ 100,000.00	£ -
O1	Operational	Delay/Consultation caused by Local Resident's Groups	Opportunity to promote project, Client and Contractor	2	2	4	Acceptable	Brookfield to implement Project Administration Manual, Corporate Social Responsibility Policies e.g. Neighbour notification schemes and appoint liaison manager.	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
O2	Operational	Delivery of materials causes disruption to others	Disruption to emergency vehicles, services, patients, visitors, staff. Potential H&S impact. Delays to material deliveries. Potential contamination from construction traffic. Delays to delivery could result in programme delays and increased costs	2	5	10	Undesirable	Implement logistics plan, traffic management plan and engage with Local Authority and Police on best methods. Introduce wheel wash and road cleaning operations. Implement material delivery control e.g. consider "just in time" material delivery.	Brookfield	Stage 1	1	5	5	Acceptable	£ 10,000.00	£ 10,000.00	£ -
O3	Operational	Distribution of materials on-site	Delays to construction, increased labour costs, loss, wastage and damage to materials, all resulting in increased costs.	2	4	8	Undesirable	Consider method of materials handling, storage and distribution in order to reduce wastage, time loss and labour costs, considered within logistics plan.	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
O4	Operational	Failure to control dust (Aspergillus)	Patient, staff and public health care affected. Damage to property and damage to public perception.	2	5	10	Undesirable	Implement appropriate control measures e.g. dust suppression, water spraying, wheel washing etc. Managed use of abrasive wheel cutting tools and consider appropriate control e.g. Tents, all as detailed in the logistics plan.	Brookfield	Stage 1	1	5	5	Acceptable	£ 10,000.00	£ 10,000.00	£ -
O5	Operational	Obtaining permit to discharge certificate and ramifications thereof	Additional costs and programme	3	5	15	Unacceptable	Enter early dialogue with Scottish Water to obtain permit	Brookfield	Stage 1	2	4	8	Undesirable	£ 100,000.00	£ 50,000.00	£ 50,000.00
O6	Operational	Highways: Peak periods for access and egress	Disruption to emergency vehicles, services, patients, visitors, staff. Potential H&S impact. Delays to material deliveries. Potential contamination from construction traffic.	2	4	8	Undesirable	Implement traffic management plan, engage with Local Authority and Police on best methods. Introduce wheel wash and road cleaning operations, all as detailed in the logistics plan..	Brookfield	Stage 1	1	3	3	Acceptable	£ 10,000.00	£ 10,000.00	£ -
O7	Operational	Management / Provision of site facilities	Poor quality facilities may have an impact on productivity, conversely, good quality facilities helps to attract and retain good quality staff	2	3	6	Acceptable	Brookfield to give careful consideration to planning facilities and requirements and liaison with client on their requirements, all as detailed in the logistics plan.	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
O8	Operational	Off-site parking for construction staff	Further congestion to surrounding area. Increased costs in provision of parking and worker transfer costs	2	3	6	Acceptable	Brookfield to consider renting suitable local premises, all as detailed in the logistics plan.	Brookfield	Stage 1	2	3	6	Acceptable	£ 50,000.00	£ 10,000.00	£ 40,000.00
O9	Operational	Delays caused by protester action groups	Delay to project resulting in increased costs	2	3	6	Acceptable	Develop protocols in conjunction with Police, on-site security and Client's security team.	Brookfield	Stage 1	1	3	3	Acceptable	£ 10,000.00	£ 10,000.00	£ -
P1	Programme	The impact of incorrect program and duration by Contractor	Increased costs and delay to project	3	3	9	Undesirable	Brookfield to assess and provide a programme that is able to meet the overall requirements and achieve the Key Dates.	Brookfield	Stage 1	1	3	3	Acceptable	£ 10,000.00	£ 10,000.00	£ -
O11	Statutory	Compliance with WRAP	Increased costs	2	2	4	Acceptable	Understanding the WRAP requirements, evidencing what we are currently providing, providing a strategy and implementation thereof.	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
O12	Statutory	Payment of £750k Bond in relation to Section 75 works	Mechanisms of implementation of bond (who benefits?)	1	5	5	Acceptable	Include costs in tender submission	Brookfield	Stage 1	1	1	1	Acceptable	£ -	£ -	£ -
1	Business	Completeness of design from Novated design team for Laboratories and FM building- scope of services, programme and fees	Delay to Project and subsequent increase in Defined Cost	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
2	Business	Any other changes in VAT	Cost increase or decrease	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
3	Business	Approvals sign-off (gateways)	Delay to the project and possible increased costs.	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
4	Business	Funding availability and cash flow	Additional cost to contractor and possible interest charges	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
5	Business	Land acquisition(s) for master plan of campus	Failure to acquire on time delays project and will result in re-design	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
6	Business	Late payments by the Employer	Increased costs in interest charges	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
7	Business	The impact of "Compensation Events" to the Contractor (variations)	Delays to project and increased costs (beyond those recoverable through CE)	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
8	Business	The impact of incorrect programme and cost estimates for decanting from existing premises	Delays commissioning and operation of new facility	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
9	Business	The non realisation of VAT reclaim and the introduction of new Statutory costs	Cost increase or decrease	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
10	Business	Inflation above the allowance in the contract	Increased cost	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
11	Business	The introduction and incorporation of changes to Scottish Government Health Department new requirements	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
12	Business	Potential for impact of legislative or regulatory change, e.g. 1. Green issues 2. Environmental Planning standards	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
13	Business	Equipment (Group 1 & 2) varies from the information in the ITPD	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
14	Business	Failure to achieve approvals at key dates and gateways. FBC approval	Delay to project and increased costs	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
15	Construction	Discovery of mine workings	Delay to project and increased costs for grouting etc.	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
16	Construction	Discovery of underground stream / spring	Time delays and cost increases	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
17	Construction	Any unforeseen ground/site conditions under the footprint of existing facilities	Cost increase and delay to project	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
18	Construction	Asbestos	Health & Safety implications. Delays to the site clearance and demolition works and increased costs	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
19	Construction	Asbestos in culvert	Health & Safety implications. Delays to the site clearance and demolition works and increased costs	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
20	Construction	Discovery of existing basements	Delay to project and increased costs. Possible re-design	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
21	Construction	Discovery of existing underground steam mains	Delays to project while dismantled and re-routed resulting in increased costs. Impact on programme e.g. works have to be undertaken during summer months	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
22	Construction	Discovery of Japanese Knotweed	Contamination of other areas within hospital campus. Increased costs and delay to project.	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
23	Construction	Discovery of unknown major services	Cost impact to divert and delay on programme	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
24	Construction	Relocation of orange aerial tower to accommodate land purchase	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
25	Construction	The Board do not provide a contract programme for the 33kV sub-station by the required date which is when the board approve the stages 1, 2, 3 & 3a	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
26	Design	Any unexpected changes in medical technology	Increased costs, delay to project and impaired functional performance	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
27	Design	Impact of pre-construction demolition works on design	Failure to implement early site clearance will delay site surveys and affect final design completion.	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
28	Design	Impact of change in Employers Requirements (space and design standards)	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
29	Design	Planning authority don't comply with statutory response	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
30	Design	Additional requirements for Police counter terrorism	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -

Risk				Inherent Assessment				Response			Residual Assessment						
Item	Category	Description	Risk Effect	P 1-5	I 1-5	PI Score	Strategy	Risk control measure or action taken to mitigate	Action Owner	When	P 1-5	I 1-5	PI Score	Strategy	£	Revised Risk	Difference
31	Design	Unforeseen additional Equipment requirements	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
32	Design	Car Parking strategy changes	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
33	Design	Level of information provided about ICT requirements	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
34	Design	Lifts Strategy (Lab)	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
35	Design	The requirements of site wide engineering strategy change	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
36	Design	An increased demand for patient services from that agreed	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
37	Operational	The non realisation of existing equipment transfers into new facilities	Increased costs and delay to project as a result of Compensation Event	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
38	Operational	Operation of Helipad during lab construction disrupting works	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
39	Operational	Interaction of construction with day to day operation of existing hospital and interface with facilities managers	Patient care affected. Health & Safety implications. Public perception damaged	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
40	Programme	Archaeology - Impact due to find	Delay to project and increased costs as a result of Compensation Event	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
41	Programme	Impact of delay in contractor gaining access to the site or availability of areas	Increased costs and delay to project	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
42	Programme	Approval process / sign off of equipment plans & RDS if Board don't comply with agreed timescales	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
43	Programme	Potential for delayed completion of enabling works by others, eg: 1. Site clearance 2. Car Parks 3. Substation	Included on NSGH Board Risk Register	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
44	Statutory	Inability to secure Planning approval: Labs/FM facility	Delay to project and increased costs	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
45	Statutory	Section 75 Agreements and conclusion thereof	Delay to project and increased costs	0	0	0	Acceptable	Included on NSGH Board Risk Register	NHS GGC	Stage 1	0	0	0	Acceptable	£ -	£ -	£ -
														Total	£ 5,111,832.00	£ 3,150,000.00	£ 1,911,832.00

Index

1. Introduction

This text has been compiled at the request of Currie and Brown to provide a composite document of the information issued during the evaluation period.

The various items include comments on the elements of the building services and cross referencing has been included to assist the overall evaluation.

2. Review of initial bidder responses

Item	Topic/Bid Reference	Board Clarification	Bidder Response	
General				
1.0	Bid Return Section 5 – Component / Product & Manufacturer Schedule	Noted that M&E related items do not appear in Section 5. Clarification required of M&E component/product and manufacturers as well as (for all elements) that listed names will be utilised or "equal and approved" component/product manufacturers.	Full component schedule is as detailed in ***Appendix Q1*** attached This indicates the quality of manufacturers proposed for components / products	See item 36 below

M&E Services				
Item	**Topic/Bid Reference**	**Board Clarification**	**Bidder Response**	
8.0	M&E Services	Please indicate any deviations from M&E elements of the ER's.	The following deviations are proposed: UPS autonomies proposed are compliant with SHTM 06-01 and differ in some respects from the ERs.	See item 62 below
			The proposals for automatic lighting controls as described in Volume 3 Section 3.12 and Volume 4 Section 4.3.6 differs in some respect from the ERs.	See item 63 below
			A single energy centre is proposed split into two plant spaces with 4 hour fire separation to provide the resilience of two separate energy centres.	Noted
			N+1 has not been provided to all plant as noted in Volume 2/1 Clause 8.1.1.17. N+1 has been included to all energy source plant, pumps, heat exchangers and duplicate motors provided on air handling plant.	To be reconciled with the Board prior to next stage or item included in financial review
			Dual path distribution has not been provided on all systems as this would be impractical for piped systems and specialist electrical systems, e.g fire alarms. Supplies from the energy centre have an element of duplication for resilience and electrical power distribution has A & B separation throughout using diverse routes wherever possible.	To be reconciled prior to next stage See also items 35 and 51 below
			Bulk water storage has been based on the busiest 12 hour period rather than 24 hour as suggested in volume 2/1 clause 8.2.8.2. It is considered that with duplicate incoming water mains to the site a reduced water storage capacity will reduce the risk of legionella	See item 66 below
9.0	M&E Services	Please confirm that racks will be provided for Client's active equipment.	The following allowances have been made:-10 racks in each of the adult's and the children's hospital main comms rooms, and 2 racks in each hub room	See item 67 below
10.0	M&E Services	Please confirm that BMS IP network will be fully stand alone and that all active equipment has been included.	Yes	See item 37 below

Item	Topic/Bid Reference	Board Clarification	Bidder Response	
11.0	M&E Services	Please confirm that asset tagging system has been included and that all services equipment shall be tagged.	Included	See item 38 below
12.0	M&E Services	What function does scaffolding platform have in plant replacement strategy for transformers and generators.	The scaffolding platform allows a level surface for the equipment to be withdrawn from the plant space and craned off to ground level	See item 39 below
13.0	M&E Services	Confirm that reference to BOC should be “Air Products”.	Yes	Noted, narrative to be updated
14.0	M&E Services	Please provide luminaire details to supplement pictorial views	Refer to separate document outlining details	Control list of Manufacturer to be agreed prior to next stage and see item 41 below
15.0	M&E Services	Please confirm light switches will be selected to suit lighting control system.	Yes	Noted, narrative to be updated
16.0	M&E Services	Please confirm that bedside adjustable luminaires will be a modern low energy high output units.	Yes	Noted, narrative to be updated
17.0	M&E Services	Please confirm fire alarm PC includes incident location graphics.	Included	See item 42 below
18.0	M&E Services	Please confirm that 4 CHP units have been proposed as the narrative (schedule indicates 3).	Three CHP units are proposed	Noted, narrative to be updated

Item	Topic/Bid Reference	Board Clarification	Bidder Response	
19.0	M&E Services	Television outlets on equipment schedule (are these back up for the CAT6A for digital distribution via the patient entertainment system?	YES, This allows flexibility and future proofing	Board to review requirement
20.0	M&E Services	Please provide details on the proposed patient entertainment systems.	Refer to supplementary schematic MER-XX-XX-SM-1400-001 outlining details	See item 43 below
21.0	M&E Services	Please advise how Renal & Specialist Departments water temperature requirements will be achieved.	This system will interact with the BMS which monitors the temperature and, if required, dumps RO water from the circulating loop to maintain optimum temperature conditions. A heat sanitise cycle is also allowed for.	See item 68 below
22.0	M&E Services	Confirm reference to 5A Switches equipment schedule should be 20A.	Confirmed	Noted, narrative to be updated
23.0	M&E Services	Please confirm that metering will be provided to meet BREEAM requirements.	Yes	See item 44 below
24.0	M&E Services	Please advise proposals for water spillage protection from fan coils in secondary comms room.	Drip trays and leak detection	See item 45 below
25.0	M&E Services	Please confirm compliance with maintainability and area isolation requirements.	Maintainability and area isolation will be incorporated in the design to give compliance. Individual rooms will have isolation of components such as sanitary ware and terminal heating/cooling devices. It will not be possible to isolate each individual room for lighting and power. It will be possible to isolate each individual circuit, and with each room having at least two circuits the room will continue to function	See item 46 below

Item	Topic/Bid Reference	Board Clarification	Bidder Response	
26.0	M&E Services	Please confirm that the renal Central Concentrate Delivery system is included (adult hospital).	Yes	Noted, narrative to be updated and system reconciled prior to next stage.
27.0	M&E Services	Please confirm that all services comply with HAI – SCRIBE.	The Services Engineer will be part of the overall SCRIBE team along with the Board's Infection Control Manager, Clinical Advisers, Facilities Manager, and Departmental Representatives, plus the other members of the design team and other relevant specialists. The Services Engineer will discharge the duties as set out in HAI-SCRIBE Implementation Strategy	Noted, compliance to be fully reconciled prior to next stage.
28.0	M&E Services	Please confirm that all plant and equipment will be suitably isolated to prevent transmission of noise and vibration.	Yes	See item 47 below
29.0	M&E Services	Please confirm that full environmental proving off all rooms will be provided.	Yes	See item 48 below
30.0	M&E Services	Please confirm that all metering requirements will be provided in accordance with the ER's and BREEAM requirements.	Yes	Noted, narrative to be updated
31.0	M&E Services	Please confirm that all services elements are included to meet the fire engineering solution, e.g. stair pressurisation, smoke control etc.	Yes	See item 49 below
32.0	M&E Services	Please confirm that ICT cooling has been included and provide details.	Yes, this is achieved with a chilled water solution, via crac units and fan coil units, as appropriate.	Noted, narrative to be updated including CRAC units and resilience provision
33.0	M&E Services	Please confirm that specialist drainage has been included.	Included	Noted, narrative to be updated

Item	Topic/Bid Reference	Board Clarification	Bidder Response	
34.0	M&E Services	Please confirm that leak detection has been included.	Included	See item 50 below
35.0	M&E Services	Please indicate percentage capacity of all water service pipework mains from the energy centre to the main buildings for resilience.	The A and B circuits are sized for 66% of the maximum operational load. The A & B circuits from the energy centre are primary circuits and totally isolated from the secondary plantroom circuits via the plate heat exchanger units. It is envisaged that any routine maintenance	See item 51 below

3. Review of further bidder responses

(Prev ref) new ref	Original Item	Action update required	Response	Update
(1) 36	List received of suggested suppliers	Client not aware of several e.g. Switchgear, fire alarm, Nurse call and wholesalers used for several systems please provide details and confirm that any changes will require agreement with the Board (up to three manufacturers for each M E & PH item)	The list of suggested suppliers gives an indication of the manufacture/suppliers of the components proposed. The final selection of components will be by agreement with the Board from a selection of no fewer that 3 manufacturers unless specialist equipment dictates otherwise	Risk to quality, availability of spares, long term support, specialist maintenance etc from suppliers with no Board track record will require to be reviewed prior to next stage or commercial risk agreed.
(10) 37	Please confirm that BMS IP network will be fully stand alone and that all active equipment has been included.	Yes. Please provide supporting narrative for the included BMS IP network. E.g. raid storage, servers racks switches etc	The BMS kernel is built on two fault tolerant servers configured in a primary and hot standby fashion. The operating system will be Linux based with a SQL database for data management. The storage of BMS data will be on a RAID configured system and this will hold the immediate data live for 1 month. The SQL will be used for back up functionality and subsequent long terms analysis of the BMS system. The system will have a primary fibre backbone with the appropriate Cisco managed switches breaking out into the copper IP networks at local system level.	Noted
(11) 38	Tagging	Included. Please provide supporting narrative. e.g. tags are electronic integrated in the WIFI systems etc	The Tagging system works on RFID technology and there are two methods of operation. For items such as wheelchairs, the system will display graphically the location of the asset and can be polled to find the nearest required equipment, such as staff requiring a wheelchair. Other items can be set up so that they are governed by a boundary and if the asset is brought beyond this defined boundary, an alarm is triggered	Confirmation required that tagging of M&E services is included in commercial proposals

(Prev ref) new ref	Original Item	Action update required	Response	Update
(12) 39	Scaffolding will be used to land generators and transformers	Is this practical, will the scaffolding have permanent foundations etc.	The majority of replacement and maintenance items detailed in the plant replacement strategy in Volume 3.23 of our submission are dealt with via the FM lifts. It is considered that it is a reasonable strategy to allow for the erection of a temporary scaffolding working platform to facilitate the removal and replacement of equipment. A structure of this type with sufficient height and capacity can be easily erected at reasonable cost using readily available materials and labour. It will be possible to erect such a temporary structure using standard scaffolding details with the footings bearing onto the ground externally, but with protection applied to the surface finishes. It is possible to incorporate permanent concrete foundations to facilitate this work but it is unlikely that the specific scaffolding arrangement will be available during the initial construction work to enable a specific design to be constructed, or that the scaffolding proposals will not change over time and render the installed foundations redundant. Where the equipment is required to be transported over the flat roof to reach a loading platform, the structure has sufficient design load capacity to facilitate this but with the actual roof finishes requiring protection as noted in the bid documentation.	The plant replacement strategy for large items of plant should be detailed prior to moving to the next stage to ensure that all commercial requirements are included in the bid

(Prev ref) new ref	Original Item	Action update required	Response	Update
(13) 40	Medical gases and VIE	Please provide details of the plant resilience for medical air, oxygen, vacuum surgical air gas scavenging and nitrous oxide	All medical gas systems and plant are designed as per the current SHTM02-01, resilience within the selected plant items being provided in the following way: Medical Air; a quadruplex plant will be provided, one compressor will act as a permanent standby, the remaining three compressors will be rotated through the demand requirements, this will insure boiling off of any excess condensate. oxygen; two VIE stores will be provided, each store will be selected to provide 100% of the calculated demand, the stores will be configured as a run and standby mode. AGSS; all AGSS pumps will be selected as duplex units, each pump will be rated to 100% of the calculated load. Each duplex plant will serve only four operating theatres. Nitrous Oxide; a 2 x 10 manifold system with full automatic changeover facilities will be provided complete with a 2 x 1 ESM (emergency) manifold back up, all manifolds will be fully alarmed. All other Air4 and Air 7 systems will have similar manifold systems complete with alarms and automatic changeover facilities	Noted, narrative to be updated
(14) 41	luminaire details	Please provide info on LED and feature lighting luminaires	Brookfield consider that an amount of LED feature lighting will be integrated during detailed design in the atrium space and also as accent lighting for art installations, as appropriate.	Noted, narrative to be updated and a commercial review of cost allocation for feature lighting to be undertaken to ensure that the basic schemes provided are enhanced in line with the ER's

(Prev ref) new ref	Original Item	Action update required	Response	Update
(17) 42	Fire alarm PC includes incident location graphics	Please confirm fire alarm PC includes incident location graphics	Confirmed as included	Noted, narrative to be updated
(20) 43	Patient entertainment systems.	Schematic representation noted. Please provide equipment details e.g. infrastructure, equipment, patient interface etc.	The primary patient and staff interface within the ward spaces, is based on a unit, such as the Lincor system. These units are connected back over CAT6A cables to the local hub rooms to an appropriate Cisco managed switch. At this point the system is connected back to the head end, via fibre network. The head end, is a fault tolerant server solution with various interfaces to broadcast receiver equipment. It is possible for this system to be integrated with medical records IT to have the local interface become part of the clinical information management at the bedside. This is not included in this proposal at this time. There is only one screen in the patient space that covers all functionality.	Sketch does not differentiate between Adults and Children's wards. Costs to be reconciled to ensure that Children's Hospital system costs are fully inclusive of all items to provide a free to use service, while the Adults hospital is to include all infrastructure, power, bracket fixings wiring, control room etc.
(23) 44	Please confirm that metering	BREEAM compliance noted, please provide a narrative e.g. central monitoring and storage	Metering of engineering services will be provided in accordance with the requirements of the ERs, BREEAM and GIL 65. All metering points will be monitored, recorded and stored on the BMS.	Noted
(24) 45	Water spillage protection in secondary comms room.	It is noted that fan coils will have drip trays. On the assumption that the drip tray is full please advise how fan coils can be used in secondary comms rooms while ensuring that the equipment will be protected	Subject to the final layout of the comms rooms options for the fan coil units include positioning high level detection in the drip trays linked to the FCU operation, or more preferably locating the FCU outside of the comms room and ducting the conditioned air into the room.	Noted, narrative to be updated to include for the preferred location.

(Prev ref) new ref	Original Item	Action update required	Response	Update
(25) 46	Please confirm compliance with maintainability and area isolation requirements.	Compliance on Electrical services noted, please confirm compliance with maintainability and area isolation requirements.	Further Electrical details provided	Operational resilience for water, medical gases, heating, cooling etc require to be reconciled prior to next stage.
(28) 47	Plant and equipment will be suitably isolated to prevent transmission of noise and vibration.	Compliance noted, please provide narrative on proposals	Sound and vibration control for ventilation systems are described in Volume 4 Specification 4.33 giving proposals for plant attenuation, cross-talk attenuation and vibration control under fans etc. Major plant such as chillers, generators, compressor etc. will be provided with spring isolation mounts as required to reduce vibration. Vibration isolation of pumps will be assessed with the pump manufacturer to determine the most appropriate method of isolation, with spring pipe hangers provided adjacent to pump assemblies. Plant noise breakout to site boundaries and intrusive noise into adjacent buildings will be controlled by sound attenuators in the fresh air intakes to all plant to meet the limiting noise criteria for the hospital site.	Noted, compliance to be demonstrated during next stage, and confirmation received that all plant will be acoustically treated in order to comply with the Hospital and Planning noise constraints

(Prev ref) new ref	Original Item	Action update required	Response	Update
(29) 48	Please confirm that full environmental proving off all rooms will be provided.	Compliance noted, please provide narrative on proposals	A full environmental check on all rooms will be provided. This will be undertaken at the commissioning stage of the project, all rooms will be put through a range of internal conditions to prove the capacity within the systems to increase and or decrease the space temperatures within a set time line. These tests will be trend logged within the BMS over a given period of time and any faults found will be addressed before final handover.	Noted, Commercial risk compliance to be developed for. Space Temperature; Space Humidity; Space Sound Levels; Controls Operation & Achieving Set Points; Domestic Hot and Cold Water; Air Velocities (Comfort Criteria); Lighting Levels and Fire Alarm Sounders as ER's.
(31) 49	Please confirm that all services elements are included to meet the fire engineering solution, e.g. stair pressurisation, smoke control etc	Compliance noted, please provide narrative on proposals	All service elements have been included to meet the Section 2.10 Fire Strategy report. Fire engineering has been used wherever beneficial to meet, or surpass, the minimum fire safety performance standards contained within the various guidance documents. To achieve this the services strategy includes for areas such as detection / alarm systems; escape bed lift provision; smoke dispersal from stair protected zones / fire fighting shafts / lift lobbies, atrium smoke and ventilation strategy; basement smoke control / clearance strategy; fire damper actuation etc.	A specific acknowledgement should be requested in this respect as it is assumed that the fire engineering strategy will be developed to meet the various requirements.
(34) 50	Please confirm that leak detection has been included.	Compliance noted, please provide narrative on proposals	The leak detection systems will be developed during the detailed design phase and will utilise linear detection elements, broken into appropriate lengths. The system will form part of the BMS, with a graphic interface of the overall system. Leak detection will be logged under the BMS alarm handling and it will also be possible to configure plant shut down or other intervention, on	Noted, narrative to be updated to provide a holistic approach to water catchment and detection

			the presence of a leak being detected.	
(Prev ref) new ref	Original Item	Action update required	Response	Update
(35) 51	Please indicate percentage capacity of all water service pipework mains from the energy centre to the main buildings for resilience.	Heating response noted, please provide narrative for CWS and HWS	The site water mains feed directly into the hospital with bulk storage in the basement. No CWS is fed from the Energy Centre. HWS is generated locally within the plant areas to feed the various zones of the building. No HWS is fed from the Energy Centre.	Board to consider, increasing heating pipework resilience for ER compliance to increase resilience and flexibility Bidder to advise CWS and HWS pipework resilience (Within the Hospitals)

Ref	Item	Response	Update
(N1) 52	Please confirm pipework types for DH&CW, CHW and heating	For DH&CW pipework, Stainless Steel Mapress by Gilbert (or equivalent) is proposed up to 67mm dia. and an ABS type material will be used on sizes above this. Copper will not be used on these systems. For CHW & LTHW, carbon steel galvanised Mapress by Gilbert (or equivalent), Large bore, mild steel medium grade tube, Victaulic mechanical couplings (or equivalent). For MTHW mild steel heavy grade tube fully welded/flanged.	Use of plastic for large domestic water systems is subject to agreement of the Board (SS in ER's) Cost reconciliation required. Bidder to provide full details of their proposed CHW and LTHW pipe systems for Board comment (BS standard in ER'S)
(N2) 53	Please provide a more detailed narrative on the proposed lighting controls	A mixture of automatic 'absence' and 'presence' detection will be provided. Presence detection: detector switches lighting on and off. Extent of provision: intermittently occupied areas such as WCs, en suites, corridors, ward kitchens, stores, plant rooms, services risers, hospital streets, bathrooms etc. Absence detection: lights manually switched on, detector extinguishes lighting in unoccupied room. Extent of provision: offices, consulting rooms etc. In addition, in rooms benefiting from daylight, luminaires near windows will be dimmable, regulated by the amount of daylight available. Dimmable lighting has been included where specifically required by the ADB sheets. Automatic control of lighting in rooms which have plenty of natural light will be regulated by means of a photocell within the space to ensure the required LUX is achieved by the combination of ambient and artificial light.	As item 63 below
(N3) 54	Please confirm that duty / stand-by plate heat exchangers will be provided for Domestic hot water	Packaged plate heat exchangers/buffer vessels will be arranged to provide run/standby as described in Volume 4 Specification 4.28 and Volume 5 Schedule 5.2.	Noted
(N4) 55	Please provide details of proposed thermostatic mixing valves for DHW	Taps with integral TMV3 will be used wherever suitable (refer to attached data sheet). In situations where these are not appropriate separate TMV3 thermostatic mixing valves will be used such as Oventrop Brawa-Mix 97 (or equivalent).	Range of suppliers to be agreed prior to next stage as item 36 above in compliance with healthcare guidance

Ref	Item	Response	Update
(N5) 56	Please provide details of trench make up for main services	Trench depths, spacings and backfill will be as NHS Model Engineering Specifications C01 for pipe services and C41 for electrical services. Buried pre-insulated heating and chilled water mains will be in accordance with the system manufacturer's recommendations but will be similar to above.	Board to consider risk of buried services in commercial review i.e. review tunnel costs
(N6) 57	Please confirm that twin regulating valves have been included for gas supplies	Yes confirmed	Noted
(N7) 58	Please confirm that NRV will be fitted at each fire isolation valve as ER's	Yes confirmed	Noted
(N8) 59	Please confirm mechanical air change rate for the ward tower	A typical ward in the tower has the following air change rates to either meet the ADB requirements or achieve the environment conditions: • Bedrooms 2.5 ACH (related to ensuite extract rate and air volume for chilled beam unit loadings) • Ensuites 10 ACH • Clean Utility 6ACH • Disposal Hold 10 ACH • Pantry 6 ACH • Dirty Utility 10 ACH • Equipment store • Cleaner 5 ACH • Nurse base Up to 12 ACH to balance extract from utility spaces, etc • Office/meeting 4 ACH	Bedroom Air change not in compliance with SHTM 03-01. Board to include in commercial review Include cost for 1) Opening window option which bidder wished to discuss at next stage. Or 2)Cost for all plant ductwork, sub zone terminal batteries, louvres etc required to provide 6 ACH
(N9) 60	Please confirm type of fire Extinguishants gas proposed for the main Comms rooms	The main comms rooms will be protected by a gaseous fire suppression system, the two gases for consideration at detailed design stage are NOVEC1230 and FM200. Both gases have attributes and issues; NOVEC1230 has a Global Warming Potential(GWP) of 1, while FM200 has a GWP of 2900. Certainly NOVEC1230 is kinder to the environment, but it is less kind to the IT assets it is protecting due to the much greater temperature drop when released, over FM200. The rapid rate of change of temperature has been shown to result in failure of the electronic components. The hope is that the suppression gas is never released and that the systems operate on a double knock strategy of operation	Subject to detailed review during the next stage
(N10) 61	Please indicate the plant resilience for hot and cold water services, e.g. full duplicate or is one extra unit proposed per plant area?	HWS calorifiers are provided in groups to serve zones of the building. Each group includes a standby calorifier. Refer to Volume 5 Schedule 5.2 Calorifier.	Noted

4. Various Items referred to commercial

(Prev ref	Item	Response	Update
(8 para 1) 62	Reduction in UPS Autonomy not agreed	Allow for additional batteries and space	Board to include ER compliance within commercial review
(8 para 2) 63	Reduction in lighting control not agreed	Allow for centralised system with dimming at staff bases and corridors.	Board to include ER compliance within commercial review
(8 para 3) 64	Reduction in resilience not agreed (The chillers have been grouped and n+1 where n=8 is not a resilient solution.)	Allow for on additional chiller and associated distribution and controls	Board to include ER compliance within commercial review
(8 para 4) 65	Reduction in resilience not agreed (Dual path distribution excluded)	Allow for design development and general resilience measures	Board to include ER compliance within commercial review
(8 para 5) 66	Reduction in water storage not agreed. (12 hour in lieu of 24 hour).	Allow for additional water storage and associated distribution and controls	Board to include ER compliance within commercial review
(9) 67	Reduction in racks not agreed. (10 in each main comms room in lieu of 24)	Allow for additional racks and associated power distribution and controls	Board to include ER compliance within commercial review. The ER's call for C1-C6 External comms S1-S10 Board servers E1-E8 General board equipment. B1-B6 contractors equipment including patching BMS CCTV raid etc. 3 racks in each hub room
(21) 68	Lack of cooling to water for Renal and specialist areas not agreed (Plant required to ensure max feed water temp of 4 deg C)	Allow for additional cooling plant, plate heat exchanger/s, associated distribution and controls	Board to include ER compliance within commercial review

New Item	Item	Response	Update
(N1) 69	Allow for Twin regulators not provided in gas pipework as requested by Estates and included in ER's	Yes confirmed	Noted
(N2) 70	Allow for non return valves included at fire isolation valve at gas main as requested by Estates and included in ER's	Yes confirmed	Noted
(N3) 71	Proposed use of 2 port rather than 3 port solution including pipework configuration for heating and cooling systems	Non compliance not issued to bidder	Board to include ER compliance within commercial review. Presently allow for major redesign for implementation of 2 port valves in lieu of proposed 3 port solution including pipework configuration for heating and cooling systems
(N4) 72	Allow for integrating existing estate in the new medical gas and VIE ring mains in accordance with the ER's	Non compliance not issued to bidder	Board to include ER compliance within commercial review.
8	Please confirm that your reference to the Exemplar in the lift study is erroneous and provide bed movement time from the ground floor to the top storey ward.	The data provided was based on the population figures issued by the client in the exemplar report. The approx time taken to move a bed from Ground to top storey ward will be 42 seconds assuming no intermediate stops (door opening at ground to door opening at top floor). On average each journey will take - 60 seconds including intermediate stops.	Subject to detailed review prior to the next stage. In the absence of a site specific traffic analysis Commercial to review use of 1.6m/s units in the towers (at circa 50m travel 2.5 m/s may be required)
9	Please confirm that a maintenance gantry in the atrium (ventilation actuator maintenance) is included in your priced proposals.	Actuators will be located externally (IP65 rated) for ease of maintenance. Localised access facilities will be provided as necessary.	Board to review acceptability of external actuators and undertake commercial review of operational and CDM requirements

5. Additional Items for PQS

	Service	**Additional Items for PQS**	Update
(1) 73	Emergency Power	Limited run generators proposed	Board to include ER compliance within commercial review.
(2) 74	Water	12 hour water storage included rather than 24 hour.	See item 66 above
(3) 75	Water	Board to confirm acceptance of items required for BREEAM Wat1	Board to advise
(4) 76	Lightning protection	Roof fabric is unlikely to provide protection to BSEN 62305, bidder to include for all requirements	Subject to detailed review prior to the next stage
(5) 77	ICT	50/125qm multi-mode fibre proposed in lieu of single mode	Board to include ER compliance within commercial review
78	Compliant Bid	Energy Centre drawing without hard FM	The drawing indicates a blank area at ground floor, if this scheme was to go forward we would suggest that one of the generator rooms is relocated to ground floor for increased resilience.

6. Comments on Volume 7

	Bid Return Section 7 – SHTM Compliance	Response	Update
(2.0) 79	**Mandatory Section** – clarification is required with regard to the following items: **SHTM85 and SHTM86** – these are relevant as the design joins the existing hospitals, what are the proposals to comply in this regard. **Health and Safety Action Notices (HSANs)** – require to confirm will comply with rather than “with reference to”. **NHSE10 and SN(01)01** – confirmation that anti-ligature is included in A&E as well as DFCP.	Full clarifications have been provided in the attached	See team review notes

	NHSE HN04 – confirmation that anti-ligature is included in A&E as well as DFCP. **SFPN3** – clarification required of how compliance with updated document will be achieved/documented. **SHTM2010** – confirmation required that design will comply with rather than “with reference to”. **SHTM2003** – notes that the services follow the principles set down in the HTM – clarification of compliance with the SHTM required (and specifically compliance with the services dimensions to be provided). **SHTM2024 Part 4** – confirmation required that original maintenance provisions are included and priced in the bid.		
(3.0) 80	Where no specific options have been listed in your bid return (ref ERs 5.2.3) clarify that all options remain available to the Board with no additional costs to the Board.	We have endeavoured in our bid submission to confirm in detail the basis of our design, specifications and cost plan. To avoid uncertainty these proposals need to take priority over the various options given in the various documents scheduled in tables 2 and 3 of the ER's. We are however conscious that within the various documents there are options that the Board may feel would enhance the scheme and assist in producing an exemplar facility. We are more than happy to review any options with the Board, within the confines of the cost plan, to ensure that the optimum solution is adopted across the project"	See team review notes Compliance appears generally in order but reference to missing document and reference to other bodies to be clarified, general note accepting compliance narrative in good faith but that compliance would require to be demonstrated during the detailed design. Why not comply with Lighting and colour for hospital design, Dalke et. Al (NHS Estates, 2004); Why not comply with Leslie RP. Capturing the Daylight Dividend in Buildings: Why and How Building and Environment 2003; 38: 381 – 385. Are the two renal documents pertinent?

Index

1. Introduction

This text has been compiled at the request of Currie and Brown to provide a composite document of the information issued during the evaluation period.

The various items include comments on the elements of the building services and cross referencing has been included to assist the overall evaluation.

2. Review of bidder responses

	WW 25 September 2009 rev 1	BB Response	WW update
11	Please indicate any deviations from M&E elements of the ER's.	Please refer to our bid submission Section 11.02 Employers Requirements Commentary, specifically Section 8 M and E Services, and note that these are clarifications rather than deviations.	Copy requested
12	Please confirm that soft start will be provided for all motors.	Confirmed. Soft start or VSD (with integrated soft start) will be provided for all motors above 1kW rating.	Noted, narrative to be updated
13	Please confirm if CHP units are 725kWe or 1000kWe.	CHP units are nominally 1000kWe rated.	Noted, narrative to be updated
14	Please advise if their 5+1 boilers as text or 4+1 as schematics.	Boilers are configured 4 duty and 1 standby.	Noted, narrative to be updated
15	Chiller noise criteria noted, please confirm that all measures will be taken to minimise noise transfer to accommodation.	Confirmed. All appropriate measures will be taken to minimise noise transfer to accommodation. Chillers will be residential very low noise specification.	Noted, narrative to be updated
16	Please advise if VAV is part of generic specification or is it proposed for any areas.	VAV is part of the generic specification and is not proposed for any specific areas.	Noted, narrative to be updated
17	Please indicate percentage capacity of all water service pipework mains from the energy centre to the main buildings for resilience.	MTHW pipework from the EC to the hospital building is configured as 3 circuits, each at 50% total design boiler capacity i.e. 150% total capacity.	Noted, narrative to be updated
18	Please confirm that isolation valves will be provided within Main building distribution pipework (ref. 2.26)	Isolation valves will be provided within the hospital building, refer to Drawing 02.25.02 "MTHW Site Infrastructure Schematic" for proposals.	Noted, narrative to be updated. (see also item 40 below)
19	Please advise the strategy for water supply temperatures to serve the chilled beams, zonal heater batteries, radiant panel/radiators	Normal CHW would be generated at 7ºC flow (13ºC return) but circuit serving chilled beams would be mixed to avoid condensation issues. The actual design temperature for the chilled beam circuit will be subject to detailed design but shall be no less than 14ºC, with a 3 to 4ºC delta T. The actual design temperature for the LTHW serving heat emitters shall also be subject to detailed design, but is currently assumed at 80ºC flow, with a 20ºC delta T.	Noted, narrative to be updated

	WW 25 September 2009 rev 1	BB Response	WW update
20	Please confirm that all network equipment and cabling is included to provide fully functional IP CCTV, Security and Access control systems	Confirmed. Systems will be integrated.	Noted, narrative to be updated
21	Please confirm that reference to 100Watt adjustable luminaire (LIG0003) will be a modern low energy high output unit.	Confirmed. The proposed luminaire is Luxo Carelite, with 18W HFGX24q lamp.	Noted, narrative to be updated
22	Please confirm that MTHW connection to the Laboratory building will be sized to meet the building demand.	Confirmed. The MTHW connection to the Laboratory will be sized to meet the building demand.	Noted, narrative to be updated (see also item 41 below)
23	Please confirm that Sprinkler system and storage allocation will be in accordance with the British Standard.	Confirmed. The sprinkler system and storage will be in compliance with BS EN 12259-1:1999.	Noted, narrative to be updated
24	Please confirm that the earthing system will be developed in accordance with the SHTM.	Confirmed, in line with SHTM and BS requirements.	Noted, narrative to be updated
25	Please confirm that the transformers and distribution systems will be rated to meet the load requirements as identified during the detailed design.	Confirmed. The transformers and distribution system will be rated to meet the detailed design requirement.	Noted, narrative to be updated (see also item 42 below)
26	Please advise flood risk mitigation proposed for basement main ICT nodes.	Flood risk mitigation measures associated with the basement located ICT rooms are listed. • IT equipment is located on raised floor • Leak detection is provided below the floor • Water and drainage services above the rooms are avoided • Sprinkler and potable water storage tanks are located within a lowered slab area to facilitate bunding • Drainage from basement level is provided by a resilient pumping arrangement	Noted, narrative to be updated (see also item 43 below)
	Bid Return Section 5 – Component / Product & Manufacturer Schedule	Section 5 requires to be resubmitted stating the relevant component/product and manufacturers that will be utilised. This to clarify that “or equal and approved” manufacturers may be considered rather	

		than “or similar”. Section 5 is requires to clarify component/product and manufacturers and be the reference for same (it is noted that some manufacturer information appears to also be listed in other sections of the bid submission).	

	WW 25 September 2009 rev 1	BB Response	WW update
27	Please confirm that co-axial TV aerial distribution to beds is either a back up or part of the Patient entertainment facilities.	Traditional co-axial distribution is only used for day rooms and common areas. Please refer to note 4 on Drawing 2.44.26. This is an additional system which can be used as a back-up.	Noted, narrative to be updated (see also item 44 below)
28	Please confirm if carbon filtration is being provided for air handling units	The facility to fit carbon filters is being provided within all AHU plant, and will be provided, where necessary, by agreement with the Board.	Noted, narrative to be updated (see also item 45 below)
29	Please advise how Renal & Specialist Departments water temperature requirements will be achieved.	If this comment pertains to Clause 2.10 and 3.2.1 of Appendix M&E 6, it had been assumed that the requirement for RO water at 4ºC at the dialysis machines was in fact a requirement that the primary RO plant should be capable of processing raw water at 4ºC and it is confirmed that suitable provision shall be made for preheating the water prior to the RO plant. If the renal RO ring mains are actually required to distribute at 4ºC, then provision shall be made for line cooling. If the comment pertains to the facility for heat disinfection, as 3.4 of Appendix M&E 6, then it is confirmed that provision has been made for RO plant and distribution heat disinfection, as specified. If the comment pertains to the requirement for a circulated cold water system to serve Oncology, Renal Inpatients and Transplant (Volume 4 clarification item 12), please refer to Section 4.45c and Drawing 11257(53)02.27.03 of the contractor's documents.	Noted, this appears in order detailed design to be discussed with Renal Dept representative.
30	Please confirm that specialist drainage has been included.	Specialist drainage has been included, where required.	Noted, narrative to be updated
31	Please confirm that all services comply with HAI – SCRIBE	All services comply with the requirements of HAI - Scribe.	Noted, narrative to be updated
	MRI replacement Please confirm your proposals (methodology, routes & structural provision to support) for the replacement/retro fit of MRI equipment.	It is recognised that MRI scanners will need to be installed either at an advanced stage during construction, or post construction. In addition, magnets may need to be replaced during the life of a scanner, and these are both heavy and bulky, requiring provision of clear routes that are capable of bearing imposed loadings. The strategy for initial installation and magnet replacement is the same. Strengthened routes have	

		currently been proposed and defined to accommodate the removal and replacement of specialist equipment such as the MRI and CT Scanners. Three scanners are located at level 00 (one in the children's hospital and two in the adults') and it is proposed that equipment will be moved along three metre wide corridors running north-south. In the case of the children's hospital, the north-south route will be the hospital street, with equipment being brought into the hospital directly through a knock-out panel in the external wall. In the case of the adult hospital, the north-south route proposed is through Adult Emergency Department Minors, which would also provide a route for replacement of CT scanners if required. This would avoid any disruption to Adult Majors. Doors across these routes, together with any associated side and overpanels, will be demountable to provide the clearance required, and a knock-out panel will be provided in the MRI scanner room partition, free from services and fixed equipment, to facilitate entry. There is a single MRI scanner room at level 01 of the children's hospital. This is located adjacent to the southern perimeter of the clinical podium, and scanner installation and magnet replacement will be through a knock-out cladding panel to the external wall, with equipment being lifted in by means of a telescopic crane from the road outside. The reinforced concrete floor slab will be designed to accommodate the specialist equipment loads in the routes defined, through an increase of structural reinforcement content, to maintain a continuous flat slab construction. Please refer to drawings noted below for the location and extent of these strengthened routes: AECOM 02.22.03.02.01 Clinical Block Ground Floor Typical Loads Layout AECOM 02.22.03.02.02 Clinical Block Level 1 Typical Loads Layout 2.22.03.02.03…… MRI Replacement Proposals As an alternative to the above, access could be provided by way of the courtyards with the equipment being craned directly into position, similar to the proposals adopted on Stobhill and Victoria Hospitals (photos of installation attached). We would be pleased to discuss this option with the Board should they so require.	

	Please confirm that your reference to the Exemplar in the lift study is erroneous and provide bed movement time from the ground floor to the top storey ward	The data provided was based on the population figures issued by the client in the exemplar report. The approximate time taken to move a bed from ground floor to top storey ward will be 42 seconds assuming no intermediate stops (door opening at ground to door opening at top floor) On average each journey time will take 60 seconds including intermediate stops.	
	Please confirm that a maintenance gantry in the atrium (ventilation actuator maintenance) is included in your priced proposals.	Actuators will be located externally (IP65 rated) for ease of maintenance. Localised access facilities will be provided as necessary	

3. Various Items referred to commercial

Item	25 September 09	Update
32	Option to change from 3 port to 2 port will be subject to agreement with the team and Board	Commercial review to indicate possible saving if the bidder can substantiate a change away from 3 port valves, main benefit of change would be reduction in pump energy during low demand.
33	ABS pipework option for CHW will be subject to agreement with the with the team and Board	Commercial review to indicate possible saving if the bidder can substantiate a change away from steel pipework
34	Relaxation taken on fire alarms with no detection allowed in ceiling voids	Commercial review required at this stage, as void detection may be required: 1) As an integral part of any fire engineering strategy 2) To meet guidance form HFS based on the developed scheme 3) As a prerequisite of the Board to provide added protection
35	Reflected ceilings do not incorporate services at this stage	Bidder to confirm full co-ordinated 1:50's will be provided at the next stage in line with the ER's
36	Based on the sample drawings provided, during electrical maintenance 50% of heat rejection equipment will be out of service	Bidder to be advised to ensure holistic view is taken on all M&E services to ensure resilience and maintainability with any commercial review carried out prior to next stage
37	Heat recovery is by run round coils (if finance is available thermal wheels should be considered as now allowable within SHTM 03-01	Bidder to be requested to provide life cycle cost options for all heat recovery options during early part of next stage to allow commercial review.
38	Review required for carbon filters (system capable of retrofit not clear if risk is included within BB bid)	Bidder to be requested to provide commercial clarification.
39	Detailed review of specialist water to be completed	Any feed back to be incorporated in the overall review

4. Items from section 2 for discussion

Item	Additional Items	Update
40	Isolation valves will be provided within the hospital building, refer to Drawing 02.25.02 "MTHW Site Infrastructure Schematic" for proposals.	The drawing indicates external valves, Bidder to confirm that sufficient valves will be provided in the internal loops to allow sectional maintenance as per the ER's
41	Confirmed. The MTHW connection to the Laboratory, will be sized to meet the building demand	Commercial review to confirm that costs are included.
42	Confirmed. The transformers and distribution system will be rated to meet the detailed design requirement	Query was raised as bidders transformer ratings do not meet base load from M&E2. Commercial review to confirm that costs are included to meet the response received (sample drawings indicate 6 twin transformers at 1.6MVA (combined capacity 9.6MVA), ER's indicated mixed ratings 1.6MVA and 2MVA(combined capacity 11.2MVA)
43	Flood risk mitigation measures associated with the basement located ICT rooms are listed above in item 26.	Bidder to confirm that a holistic approach to flood risk mitigation will be taken throughout the design to minimise
44	Traditional co-axial distribution is only used for day rooms and common areas. Please refer to note 4 on Drawing 2.44.26. This is an additional system which can be used as a back-up.	Commercial review required, note 4 does not differentiate between the Children's and Adults schemes. Children's system to be fully installed
45	The facility to fit carbon filters is being provided within all AHU plant, and will be provided, where necessary, by agreement with the Board.	Commercial review required to confirm that bidder has included these or if they are in a bidder risk element

5. Comments on Volume 7

Item	Topic/Bid Reference	Board Clarification	Bidder Response
-	-	-	
General			
4.0	Bid Return Section 7 – SHTM Compliance	Section 7 requires to be resubmitted providing clarity as to levels of compliance and details of any non-compliance. The bid submission appears to suggest non-compliances but does not state what these are and considers referring such to the next stage. Additionally, there are items with no response attached and items which have either been deleted or not considered. Examples of the present lack of clarity include: **HBN 00-04 (Circulation)** – no response included with regard to this requirement. **HBN 15-03 (Helipads)** – what does compliance note mean? **SHTM 06-01** (and other documents that were draft but that were uploaded to BIW and confirmed in tech clarification uploaded on 14 August 2009) has response "Draft only available unable to consider" – the technical clarification issued by the Board clearly stated that this and the other standards shaded blue in the original ITPD were to be complied with. **SHTM 20-10 (Sterilization)** – "to the extent applicable to our design" does not provide information/position that can be understood - bidder to confirm compliance and highlight any non-compliance. Further, any documents/standards that the bidder considers suitable for being not considered (e.g. due to being considered out of date)	We are demonstrating compliance in Section 7 SHTM Compliance of our bid submission, explaining that being able to maximise compliance requires a fully consultative process between the Board and ourselves during the detailed design process which can only progress further at Preferred Bidder up to FBC. Section 7 resubmitted in hard copy format only

		require to be included in the long list of standards resubmitted with a relevant statement as to treatment (e.g. omitted by the bidder) and reason for such treatment clarified.	
5.0	Bid Return Section 7 – SHTM Compliance	Where no specific options have been listed in your bid return (ref ERs 5.2.3) clarify that all options remain available to the Board with no additional costs to the Board.	Section 7.2.3 Hierarchy of Standards within our bid submission clarifies this, and if the Board is concerned about any particular option, then this can be discussed now or during the detailed design process. (refer to items within the text above)

Comments on Section 7 Compliance: Clarification sought by Board regarding compliance/non-compliance in general and specifically in relation to draft SHTM's has failed to be adequately addressed by Bidder at close of process. In addition section 7.2.3 Hierarchy of Standards which was resubmitted by the Bidder contradicts the response above.

From: Mike.Baxter[redacted]
Sent: 23 October 2009 13:08
To: Byrne, Helen
Cc: Seabourne, Alan
Subject: FW: New South Glasgow Programme Board Meeting 26th October

Follow Up Flag: Follow up
Flag Status: Red
Helen

To see the text of the brief note I put forward to Kevin/ Cab Sec this morning. I will use the PRG paper as the basis of briefing once available. I have left the door open for your comms people to liaise with ours.

Trust this is helpful.

The following information is commercially confidential and is not to be released.

This note is to advise the Cabinet Secretary that the Executive Programme Board for the New South Glasgow Hospitals Project met yesterday to consider the outcome of the tender evaluation process and to agree a recommendation to the NHS Greater Glasgow and Clyde Policy and Resources Group (who have the authority to approve the recommendation) on 3rd November 2009. That recommendation is in two parts. Firstly for the appointment of the preferred bidder for the project and secondly for the approval of the Full Business Case for the Labs component of the project (£57m) which is the first phase of construction of the project and the cost for which is included within the pricing (and affordability envelope) for the whole project.

A confidential briefing will be brought forward early next week with details of the bidders, costs etc. At this stage I can confirm however that the qualitative scores for the preferred bid were above the benchmark established, that design quality is very good and that both the target price and maximum price within the bid are within the affordability envelope established for the project. NHS Greater Glasgow communications will be in contact with communications Health with regard to handling options for the announcement over the next few days.

I trust this is helpful.

Mike Baxter
Deputy Director (Capital Planning and Asset Management)
Scottish Government Health Directorates
Tel [redacted]
Mob [redacted]

From: Byrne, Helen [redacted]
Sent: 23 October 2009 09:00
To: Baxter M (Mike) (Health)
Cc: Seabourne, Alan; Calderwood, Robert
Subject: Re: New South Glasgow Programme Board Meeting 26th October

Thanks Mike for your kind comments and your ongoing support to the project.

No your attendance on Monday is not essential but I would like either alan or I to have a word with you today or early mon am as there are one or two issues we'd like to sort out.

Helen
****
Sent from NHSGG&C Blackberry Device
****

From: Mike.Baxter[redacted]
To: Byrne, Helen
Cc: Seabourne, Alan; Calderwood, Robert
Sent: Fri Oct 23 08:57:06 2009
Subject: New South Glasgow Programme Board Meeting 26th October

Helen

Firstly can I congratulate you and your team for an excellent performance yesterday and over the past few months in enabling the Programme Board to reach a positive recommendation to the NHS Greater Glasgow and Clyde Board on a preferred bidder for the New South Glasgow Hospitals Project. I thought the recommendation reached yesterday was a sound one based on a robust and transparent evaluation process. I support it fully.

I have spoken to Alan regarding the meeting on 26th October and am not sure if my presence is required. I have a number of competing commitments which make Monday morning difficult. I would be happy to discuss handling in advance of Monday's meeting in any case. I have reiterated my support for the position reached above and I understand that the labs FBC will be discussed. At this point in respect of Labs I need to take a step back as I am the Chair of CIG and will be responsible for making a recommendation to Kevin on the case following its consideration.

Grateful if you could confirm whether my attendance is required or whether anything else in written form from me would suffice.

Mike Baxter
Deputy Director (Capital Planning and Asset Management)
Scottish Government Health Directorates

Tel [redacted]
Mob [redacted]

****

****

****

****

From: Wrath, Frances
Sent: 11 November 2009 10:13
To: Frew, Shiona
Subject: FW: Mtg today
Attachments: M&E comments on feedback101109.doc

From: Boyle, Patrick [redacted]
Sent: 11 November 2009 09:49
To: Mark Baird
Cc: David Hall; Seabourne, Alan; McGibbon, Lindsay; Allinson, Martin
Subject: RE: Mtg today

Mark

M&E questions attached. Area info to follow shortly

Regards

Pat

From: Mark Baird [redacted]
Sent: 10 November 2009 19:16
To: Boyle, Patrick
Cc: David Hall; Alan.Seabourne[redacted]; McGibbon, Lindsay; Allinson, Martin
Subject: Mtg today

Pat,
Can you please include David and myself in the information issue due today from LOR to the Board following the meeting earlier today.
Regards,
Mark.

From: Frew, Shiona
Sent: 12 November 2009 12:00
To: 'David Cairns'
Cc: 'Nicola Gooch'; Mark.Baird[redacted]; Seabourne, Alan
Subject: Feedback Session - NHS GG&C Reponse
Attachments: D Cairns - Nov 2009 - Letter 2.pdf

Dear David

Please find attached a letter from Alan Seabourne in respect of your recent feedback session.

I would be grateful if you could confirm receipt of this email and attachment. The letter is being couriered to you as well.

The password for the attachment is the same as that issued by Mark in relation to your feedback report.

Regards

Shiona

Project Offices
St Andrews House
80 Queen Elizabeth Avenue
Hillington
Glasgow
G52 4NQ

NHS Greater Glasgow and Clyde

PRIVATE & CONFIDENTIAL

David Cairns
Balfour Beatty Group Limited
Dean House
24 Ravelston Terrace
Edinburgh
EH4 3TP

Date 12th November 2009
Your Ref
Our Ref AS/SF

Enquiries to Alan Seabourne
Direct Line [redacted]
E-mail [redacted]

Dear Sirs

NHS Greater Glasgow and Clyde - New South Glasgow Hospitals and Laboratory Project
Bidder Feedback Session – Monday 09 November 2009

With regard to your Feedback Session on 09 November 2009 at Jubilee Court, Hillington, we would confirm responses to particular items confirmed/raised/discussed at the meeting as follows:

a. It was confirmed at the commencement of the meeting by the Board that they offered (at the meeting with Balfour Beatty on Wednesday 04 November 2009) to host the Feedback Session on Monday 09 November 2009 or Tuesday 10 November 2009 but that it was highlighted (at the meeting of 04 November 2009) that an alternate date could be arranged if the proposed (09 or 10 November 2009) dates were not suitable to Balfour Beatty. Balfour Beatty confirmed that continuing with the Feedback Session was suitable.

b. The governance requirement that capital projects over £5m require Scottish Government (via the Health Directorates) approval was highlighted by the Board. Further it was noted that the threshold for Scottish Government approval for NHS Greater Glasgow and Clyde is £10m. The approval of capital projects (Full Business Cases) by the Scottish Government was therefore noted as normal practice, as discussed at the Competitive Dialogue and included in Volume 3 of the ITPD, in the Scottish healthcare market.

c. The Board highlighted that the evaluation process had been executed per the detail of such in Volume 3 of the Invitation to Participate in Competitive Dialogue. Further, the evaluation included the co-location of evaluators at an NHS building at the Gartnavel Royal Hospital site, and the process had been overseen by the Head of Procurement of NHS Greater Glasgow and Clyde.

d. Generally – it is confirmed that where the word "appear" is utilised in the Bid Evaluation Feedback Report, this has been assessed in the affirmative for scoring purposes.

e. Design Item # 18 (Roof Level Layout) – in relation to the Helipad structural detail, the drawings referred to during the meeting had been considered by the evaluation team, but as these were 3D images rather than technical layouts the detail was considered unclear in the assessment of structural compliance.

f. Design Item # 21 (Acoustics) – your comment that the design solution of concrete roofs would address the rain noise is noted for that element of the structure, however, the evaluation team view was that the overall treatment of rain water noise was not covered adequately within the report and this is noted in the feedback commentary.

(cont'd)

g. Design Item # 22 (Arts) – it was noted that your response addressed the requirements well, but in order to achieve a score higher than the benchmark it would have been necessary to have extended the offering and offered additional benefits.

h. Design Item # 23 (Fire) – we note your comment that you consider the helipad was discussed/included in verbal communications during the Dialogue, however the evaluation was based on the information submitted in your bid return. As per the commentary in your Feedback Report, there are a number of items affecting/influencing the outcome score for this item.

i. Design Item # 24 (Structural Engineering Strategy) – in relation to the challenging benchmark set by the Exemplar and Employer's Requirements, the score of a seven for this item reflects the nature of the benefits noted.

j. Design Items # 27, 29 and 30 (SHTMs) – see Appendix A.

k. Design Item # 32 (Lift Engineering) – see Appendix B.

l. Design Item # 33 (Communication Strategy) – the pass over of racks to GEMS and the positioning of racks in the basement (potential resilience impacts) are factors in the assessment of this item.

m. Design Item # 37 (Plant Room Strategy) – with regard to fire separation in the energy centre it is noted that the generator sets are split into two separate fire compartments, however, there is no fire separation within either the CHP or boiler rooms to provide the separation resilience required.

n. Design Item # 40 (Maintenance & major plant replacement strategy) – to clarify the evaluation team review of the clarification provided on MRI replacement, the options presented were considered, with the crane solution being of concern due to the required locations in the proximity of the front door or in the children's park. The alternative horizontal movement solutions were deemed inappropriate due to their impact on business continuity of the 24/7 Emergency Department.

o. Design Items # 41 and 43 (Sustainability and Energy) – see Appendix C.

p. Logistics Item # 9 (Traffic Management) – notwithstanding your comments that a traffic study has been carried out with regard to the junction of Shieldhall Road at Hardgate Road, it is the assessment of the evaluation team that the impact on access to the hospital and blue light approaches would be compromised to a degree by the additional traffic load.

q. Commercial Item # 1 (Contract Conditions) – the bid submission reflected the risk allocation and contractual arrangements for the most part. Various amendments were proposed that in the round did not represent a betterment to the Board and stepped away from the NEC3 Standard Form.

r. General Question – the statistical modelling acted as a check for the evaluation team. As such it did not form part of the evaluation and we would not propose to release it.

s. General Question – as discussed at the meeting, the evaluation team considers the Competitive Dialogue process was entirely appropriate as carried out.

t. General Question – it was noted that the achievement of a MEAT score of 400 or above was originally a threshold to be met by bidders. This requirement was removed during the process, with no pass/fail outturn score therefore applied. It was noted that the requirements of the Board detailed in the Employer's Requirements set a challenging target for bid solutions to achieve.

u. General Question – with regard to conflicts of interest, further to the verbal response given at the meeting, we have reviewed this issue and it should be noted that conflicts highlighted were addressed appropriately.

(cont'd)

v. General Question – it was confirmed that some involvement of parties not listed in the Evaluation Group was sought to address specialist type assessment/reviews of discrete aspects of bid returns. This included acoustics and fire as well as Board internal staff and departments with regard to IT, Renal Water, Arts and Imaging. It can be confirmed that only members of the evaluation team scored the bids.

w. General Question – it was noted that the bids received provided content in accordance with the ITPD requirements.

With regard to your requests for information included at paragraph seven of your correspondence dated 06 November 2009 (attached at Appendix D), we would respond as under noted (following your numbering):

1. **Qualitative Scoring Schedule** – the following scores were achieved by the successful bid: Design = 169,000pts; Logistics = 49,200pts; Commercial = 20,200pts. Further, a distribution of scores comparing your scores with those of the preferred bidder is attached at Appendix E.

2. **Pricing and Cost Structure** – a sliding scale for pain/gain share was proposed by the successful bidder, with the following pricing: Target Price £575.6m, Maximum Price £583m.

3. **Expected Outcome Analysis** – £571.4m was the determined expected outcome price and this was used in the MEAT score calculation.

4. **MEAT Score calculation** – 238,400pts/£571.4m = 417.2

5. **Fee and Profit Percentages** – these are considered commercially sensitive. We would, however, advise that your bid percentages were considerably higher than other bids received.

6. **Inflation allowances** – this is 2.5% per annum.

Further to the e-mail issued by David Cairns on 11 November 2009, we can confirm that slides illustrated at the meeting of 09 November 2009 will not be issued.

The Board would like to take this opportunity to again thank you and your organisation for the considerable effort and contribution to the process to date and would request that you confirm receipt of this correspondence to Shiona Frew at the following e-mail address: Shiona.Frew[redacted]

Yours faithfully

[redacted]

Alan Seabourne
pp · **Project Director – New South Glasgow Hospitals and Labs Project**
NHS Greater Glasgow & Clyde

APPENDIX A

Design Items # 27, 29 and 30

(Water Services, Ventilation and Mains/sub-mains Power respectively)

The ITPD (at Volume 2/1 Sections 5.1.2 and 5.1.3) included reference to draft NHS publications/documentation (shaded in blue). The intention of treatment of the draft documentation by the Board (i.e. to be adopted complied with) is identified in 5.1.1.5 of Volume 2/1 of the ITPD. During the Competitive Dialogue process a technical update was uploaded to BIW (Technical Various – 19nr) which confirmed (at item 6 therein) that the SHTMs referred to as draft and shaded in blue had been uploaded to BIW and to be treated as mandatory (in relation to the Table 2 documents) for compliance by the Contractor and included in Final Bids.

Your bid return (Section 07.01) response in relation to the above stated "DRAFT ONLY AVAILABLE UNABLE TO CONSIDER".

The Board issued Technical Clarification 2 to Bidder 3 including (at Item 4.0) a request for clarity and resubmission of Section 7. This clarification item issued by the Board specifically identified the following:

"**SHTM 06-01** (and other documents that were draft but that were uploaded to BIW and confirmed in tech clarification uploaded on 14 August 2009) has response "Draft only available unable to consider" – the technical clarification issued by the Board clearly stated that this and the other standards shaded blue in the original ITPD were to be complied with."

Your resubmission of Section 7 omits the Yes/No box to mark compliance and states "Since these are "DRAFT" documents, their content is subject to change and therefore these must be reviewed during the design development process to ascertain the feasibility of compliance."

This response does not confirm compliance per the requirement of the Board. There is therefore a lack of clarity as to the base position of what is being complied with in your submission and this is noted within the feedback commentary for these items.

The requirement of the Board is for compliance with the documents as the base position.

APPENDIX B

Design Item # 32 (Lift Engineering)

In reviewing the resilience of the escalators and lifts at the main entrance of the Adult Hospital the evaluation team were informed by the detail contained in your proposals at sections:

03.01 – Architectural Strategy

Page 9, Column 1, Para's 4&5

"From the 'Winter Garden', escalators and glazed lifts rise directly to a public concourse at level 01, giving visitor access to the adult wards by means of two lift cores. This public concourse, with its bright two-story atrium, is day-lit and provides dramatic external views of the ward towers to assist wayfinding.

Forming an attractive and direct public route from the main entrance to A&E, the elevated location provides direct access to adult outpatient departments, the majority of which are arranged along the concourse at level 01, whilst avoiding any cross-over with essential clinical connections between Acute Assessment, A&E and Radiology at ground level".

03.01a – Healthcare Planning Strategy

Page 7, Column 1, Para 4

"Level 0 is also the main entrance level to the hospital and the majority of visitors will be directed via escalators to Level 1 which is the main horizontal circulation route for the public."

Page 7, Column 2, Para 4

"Segregation of flows by lifting the main ambulatory and visitor circulation to Level 1. Relatives visiting patients in AAU circulate at Level 1 and drop down in lifts to AAU thus avoiding any cross over of patient and visitor traffic".

The drawings contained within your bid confirm that the majority of footfall to the Adult Hospital will access escalators and lifts at level 00 to reach the public thoroughfare at level 01, for example:

Level 00 - Drawing No. 02.03.16 – showing Inpatient access at ground floor level
Level 01 - Drawing No. 02.03.08 – showing general public access to the building at level 01

The evaluation team believe that the absence of an appropriately located public staircase poses a resilience issue in the event of lift or escalator failure.

There is a staircase shown on the plans however to access these can only be by travelling through clinical areas and also would emerge into clinical areas which is inappropriate.

APPENDIX C

Design Items # 41 and 43 (Sustainability and Energy)

Clarification on adjusted carbon figure of 106 kg/CO2/sqm per annum.

- The 106.9 kg/CO2/sqm figure is provided by the bidder.

  See table in Section 3.20, Appendix A04 page 7 of 65. This is described as the CO2 output adjusted for "Low Zero Carbon Technologies" influence with the Combined Heat and Power Plant using mains gas. This has been assessed as deliverable under the terms of the evaluation criteria

- On receipt of the bid , the achievement of the Boards desired 80 kg/CO2/sqm is detailed as being dependent on biogas being used in the CHP's. This is detailed in Section A04 page 8 of 65 where a figure of 79.6 kg/C02/sqm. per annum figure is used where this reduction has been achieved primarily by the reduced CO2 factor in the CHP gas input category by way of biogas also being used in the CHP's .

  However this was qualified on the board entering into a consortia to develop anaerobic digestion plant on Scottish Water land adjacent. This cannot be evaluated under strict bid assessment as there is no certainty of delivery nor is there any financial assessment or provision for such a scheme.

  Additionally there is a "Biogas or Biomass" fuel storage space shown in a location which blocks the access road round the Energy Centre which was shown clear in the exemplar design to enable easier access and circulation.

- A subsequent clarification, received on 23 September 2009 confirmed that the preferred solution would be a biogas development but an alternative could be to use bio-fuel (with storage on site) for one of the CHP units.

  No additional supporting logistical information or cost impact analysis was provided with this statement.

  Additionally there is no demonstration of how this would achieve the desired carbon output figure as requested in the bid documents.

The Carbon Trust Advisor echoed these points in their report.

Appendix D

Balfour Beatty

Our Ref: PB09100/DM/DC//MW/09-075

Your Ref: AS/SF

06 November 2009

NHS Greater Glasgow and Clyde
St Andrews House
Project Offices
80 Queen Elizabeth Avenue
Hillington
Glasgow
G52 4NQ

Balfour Beatty Group Limited

Dean House
24 Ravelston Terrace
Edinburgh
EH4 3TP

Tel [redacted]
Fax [redacted]
DX

Email: david.cairns[redacted]
www.balfourbeatty.co.uk

Dear Sirs

NHS Greater Glasgow and Clyde
New South Glasgow Hospitals and Laboratory Project

We refer to your letter dated 4 November 2009 addressed to Balfour Beatty Construction Scottish & Southern Limited.

We would point out that the bid was in fact submitted by Balfour Beatty Group Limited and we therefore look forward to receiving a letter from you addressed to Balfour Beatty Group Limited.

Your proposal for a debriefing session and the arrangement for Monday, 9 November 2009, 10:30a.m. to meet you at your Hillington Offices is being treated by us as a request for accelerated debrief under the Public Contracts (Scotland) Regulations 2006.

We note that you have stated that the appointment of the Preferred Bidder is subject to Scottish Government approval of the Full Business Case for the Labs Project, of which we were unaware. We would like to discuss with you the impact of this.

We would also wish to understand the status of the recommendations of the Project Team and the Board's advisers in relation to the overall evaluation process. A further area that we wish to discuss with you at our debrief is those areas of design which were raised during dialogue and then in the evaluation scoring have failed to meet the Board's threshold.

We also acknowledge receipt of the letter dated 5 November 2009 from your advisors Currie & Brown including the Feedback Report.

We would request that you provide, in addition to that already provided, full information for the successful bid as per the following:-

1) Qualitative Scoring Schedule (Appendix B of the ITSFB volume Three)

2) Pricing and Cost Structure – Target Price, Pain / Gain Percentages, Risk allowance and Maximum Price

3) Expected Outcome Analysis

4) MEAT Score calculation

5) Fee and Profit Percentages

6) Inflation allowance

You will realise the importance of us understanding fully the Board's decision and we anticipate that on the day, questions may arise during the dialogue for which we trust the Board will have representation sufficient to provide full answers.

Our representatives on Monday 9 November will be:

Bob Clark	BBBCS&SL Managing Director
David Cairns	Project Director
Lorna Hamilton	Commercial Manager
Joe O'Meara	BBESL
Sandy Fergusson	Partner – BDP Architects

Yours faithfully

[redacted]

David Cairns
Project Director

Appendix E

The Evaluation Process to establish qualitative scores for each of the teams was undertaken based on the format set out in Volume 3 of the ITPD. Each of the bids was evaluated against the exemplar design and brief requirement, and scored against these requirements. The Board's exemplar was evaluated (prior to issue of the ITPD) as scoring 6 on all the items in the bid evaluation schedule (Volume 3-Appendix B), and this score was used as a starting point for the evaluation of all bids. Proposals meeting all the brief requirements for each element scored 6, those exceeding the brief requirement scored higher than the benchmark, and those that fell short of the requirement were marked down based on the descriptions on page 4 of Volume 3 of the ITPD.

This process was followed rigorously across all sections of the ITPD bid evaluation for each bid submission and the scores below reflect a comparison of all the qualitative scores for the Preferred Bidder and your team;

- Design
- Logistics (Deliverability and Approach)
- Commercial

Score Value	1	2	3	4	5	6	7	8	9	10
PB	0	0	0	1	11	55	8	0	4	0
Balfour Beatty	0	0	2	1	13	55	7	1	0	0

From: Seabourne, Alan
Sent: 16 November 2009 09:33
To: Frew, Shiona
Subject: FW: LETTER FROM BALFOUR BEATTY - 13 Nov 09
Attachments: Balfour Beatty - 131109.pdf

Importance: High

From: Moir, Peter
Sent: 13 November 2009 17:31
To: Harper, Rhona; David Hall; 'Douglas Ross'; Mark Baird
Cc: Seabourne, Alan; Byrne, Helen
Subject: LETTER FROM BALFOUR BEATTY - 13 Nov 09
Importance: High

All

David Cairns really cut this fine, delivered 16.55. Can you have a scan over and we will respond on Monday morning.

This appears to be a holding letter, no request for a further meeting but requires a response on four issues;

- MEAT score…when was threshold removed and how was this communicated.
- BREEAM level of benchmark, this a non question, excellent rating is compliant so score 6.
- They would like detail on conflicts of interest.
- They would like the slides.

Finally they want the Board to confirm that we will not conclude until they have had opportunity to issue further tech queries by Friday 20th Nov and that we have then to respond to these if required.

Rhona will give you a phone on Monday am to discuss way forward.

Thanks

Peter Moir

Head of Major Projects
NHS Greater Glasgow & Clyde
Project Office
St Andrew's House
80 Queen Elizabeth Avenue
Hillington
Glasgow G52 4NQ

Tel: [redacted]
Fax: [redacted]
Mob: [redacted]
Email: [redacted]

Balfour Beatty

Our Ref: PB09100/DM/DC//MW/09-077

Your Ref: AS/SF

13 November 2009

NHS Greater Glasgow and Clyde
St Andrews House
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Dear Sirs

NHS Greater Glasgow and Clyde
New South Glasgow Hospitals and Laboratory Project
Bidder Feedback

We refer to your letter dated 12 November 2009 in confirmation of your responses at the Bidder Feedback session held on 9 November 2009 and in providing further information relative to that requested in our letter dated 6 November 2009.

Whilst we acknowledge that the further information you have provided has been helpful, this raises further queries for which we would request your response by Friday, 20 November 2009 as follows:-

Paragraph references are those contained in your letter dated 12 November 2009.

1. Para. t

   (a) We note the evaluation methodology is as contained within Volume 3 "Bid Deliverables and Evaluation" under clause 2.3 which refers to the achievement of a minimum MEAT score of 400. This is inconsistent with your statement at the briefing session where you advised that this was removed.

   Can you please confirm how and when this was removed and how you communicated this to the bidders.

   (b) The Board also revealed during the briefing session that even where some elements were fully compliant, e.g BREEAM Excellent rating, the Board would not evaluate this at more than a 6. This again seems inconsistent with the bid evaluation process in Volume 3 where such elements were to be scored out of 10, not 6.

   Can the Board therefore please clarify their interpretation of the bid evaluation process in this regard.

2. Para. u

   Can the Board please provide details of what conflicts were highlighted as referred to in your letter of 12 November, when in the bid process they were disclosed and how these were appropriately addressed. At the briefing session the Board and the representatives present from the bid evaluation team indicated that there were none.

3. We are somewhat surprised that the Board have indicated that they are not prepared to release the slides illustrated to us at the briefing session on 9 November 2009.
   We regard these as an integral part of that feedback, being solely relevant to our bid submission and not regarded as commercially sensitive.
   We therefore repeat our request for these and if the Board are still not prepared to release the slides, then can they please state why.

We are still considering your detailed comments on the technical element of our bid submission and any further queries we have to raise will be issued by Friday, 20 November 2009.

In the meantime, we would request that the Board confirms by return that it will not conclude the contract with the successful bidder, Brookfield Europe LP until after the Board has provided the requested information.

Yours faithfully

[redacted]

David Cairns
Project Director

From: Paul Serkis [redacted]
Sent: 17 November 2009 18:00
To: Frew, Shiona
Subject: RE: Feedback Report

Many thanks Shiona

Paul Serkis
Commercial Director - Infrastructure

Brookfield Europe
23 Hanover Square
London, W1S 1JB
t: [redacted]
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Brookfield

Please consider the environment before printing this email.

From: Frew, Shiona [redacted]
Sent: 17 November 2009 16:57
To: Paul Serkis
Cc: Ross Ballingall
Subject: Feedback Report

Dear Paul

The password for your feedback report is 'report'.

If you have any issues opening the report then please let me know.

Regards

Shiona

****

Message protected by MailControl: e-mail anti-virus, anti-spam and content filtering.
http://www.mailcontrol.com

From: David Cairns [redacted]
Sent: 20 November 2009 15:55
To: Frew, Shiona
Cc: Bob Clark; David Muir; Lorna Hamilton; Mike Kidd; Ian Birrell
Subject: nSGH Bidder Feedback and Technical Response
Attachments: NHS Greater Glasgow Bidder Feedback DC 201109.pdf; 2 Balfour Beatty - Feedback Report DESIGN.doc; 20091120 Exemplar Mark ups.pdf

Shiona

Please find attached letter and enclosures in response to the technical element of the Board's evaluation of our bid submission.

A hard copy of the letter was issued today by recorded post.

Regards

David Cairns
Project Director

Balfour Beatty Construction Scottish & Southern Ltd Edinburgh Office Dean House
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20 November 2009

NHS Greater Glasgow and Clyde
St Andrews House
Project Offices
80 Queen Elizabeth Avenue
Hillington
Glasgow
G52 4NQ

Dear Sirs

NHS Greater Glasgow and Clyde
New South Glasgow Hospitals and Laboratory Project
Bidder Feedback

We refer to our letter dated 13th November 2009, where we stated we would provide a response on the technical element of the Board's evaluation of our bid submission, and we now seek the Boards clarification in respect of the following points:

1. **Minimum Meat Score**.

The Board's MEAT scoring as contained in the ITSFB forms the mainstay for the evaluation of all bid submissions providing the Board with the ability to objectively arrive at a conclusion on the successful bidder. On the face of it, there was the potential to score anything up to a maximum of 392500 by the achievement of a "10" in each of the evaluation elements.
Maintaining aspirations at a reasonable level, during the preparation of our bid and from feedback during the competitive dialogue, it was not unreasonable to expect that some aspect of our bid would offer sufficient benefit to the Board, such that an evaluation at something more than an "adequate 6" could be justified.

This however now seems completely inconsistent with the post bid feedback being given by the Board, in that, by their own admission, the Board have a different view, with no intention of awarding anything more than a 6. Whilst this has an impact on all elements evaluated as part of the bid, it is particularly evident within the Commercial Review section. Having complied in the main fully with the Board's requirements, this section of our bid has been scored generally at an adequate "6". If this was to be the best score achievable, why then have the potential to score up to a 10?

The overall affect has been to ultimately distort the outturn MEAT score and any pre-bid modelling carried out by ourselves.

The Board's interpretation of their own evaluation process is misleading and not in accordance with the parameters set by them in the ITSFB documentation and request the Board to explain this discrepancy.

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London, SW1V 1LQ
Registered in England Number 101073

2. **Bid Text**

During the briefing session on 9 November, it was made clear to us by your Medical Planner, that no bid text had been referred to in his consideration of our clinical design. At the same briefing session, Currie & Brown confirmed that the bid submission text had indeed been referred to by other members of the Board's evaluation team, but your Medical Planner again confirmed that he had not consulted our bid submission clinical text during his evaluation of our clinical drawings.

Can the Board please clarify where it is stated in the ITSFB that bid text would be treated in this manner relative to clinical design evaluation?

3. **Clinical Design Submission and Evaluation:**

It is clear from the Board's response to our clinical design submission that our clinical design has been scored directly against a comparison with the Board's exemplar drawings. This is not in accordance with ITPD Volume 2/1 - Section 4.1.3 Functional Relationships, which states: *"Layouts shall reflect the workflow and logistics inherent in the Clinical Output Specifications in Appendix B; the parameters identified in the Adjacency Matrix; and the requirements of the housekeeping and domestic staff, catering, staff welfare, and related management needs."*

We would refer you to our enclosed Design Evaluation Commentary highlighting major inconsistencies in the Board's clinical design scoring.
This is further supported by our over mark highlighting the short comings in the Exemplar design, against which we have been evaluated.

4. **Feedback slides.**

We are somewhat surprised that the Board have indicated that they are not prepared to release the slides illustrated to us at the briefing session on 9 November 2009.
We regard these as an integral part of that feedback, being solely relevant to our bid submission and not regarded as commercially sensitive.
We therefore repeat our request for these and if the Board is still not prepared to release the slides, then can they please state why.

In line with the above comments we require the Board to re evaluate our bid submission.

We would be pleased to receive your considered response by Friday 27th November 2009.

Yours faithfully

[redacted]

David Cairns
Project Director

	DESIGN REVIEW EVALUATION NOTES			Bidder Ref	(BALFOUR BEATTY)	COMMENTS
	ITPD Evaluation	**Individual**	**Technical**	**Score**	**Commentary**	
	Criteria	**Weighting**	**Weighting**			
	DESIGN	**550**	**50**			
	Space	**20**				
Item # 1	The design should achieve appropriate clinical space standards as required by the ITPD Schedule of Accommodation	10		**6**	*Reviewed Against:* *Schedule of Accommodation and proportions of clinical spaces + SHPNs* Evaluation Notes: See table and comments below at Item # 2.	
Item # 2	The circulation, communication and plant space should be adequate and optimised	10		**5**	*Reviewed Against:* *Schedule of Accommodation (circulation, communication and plant spaces) Break out spaces (no 'race tracks' and 'dead ends')* *Sections 4.2, 4.4, 7.3, 7.4, 7.10, 8.3.32* **Evaluation Notes:**	**The exemplar design measured 173,978.**

	Brief	Bidder 3	%age to Brief	Notes
1.0 **Accommodation Schedule - Combined** Gross Departmental Area (includes circ, planning and eng) Net Departmental Area (excludes circ. planning and eng)	109,785 81,884	131,989 88,104	120% 108%	
1.1 Net Area - room by room, incl. ducts, pipe boxes and service zones		Y		
1.2 Circulation area %age Circulation (of Net) Planning & Engineering Allowance (calculated) %age Planning & Engineering Allowance	24,474 30% 3,427 4%	33,452 30% 10,433 12%	136% 127% 283%	
1.3 Communication & plant space area %age Communication & Plant				
1.4 Total Gross Floor area - combined	142,944	172,219 167,326 4893	120% 117%	Target area (additional space to be 'designed out'). Cost plan is based on this area Area to be 'Designed Out'

Note 'green' numbers have been provided by bidder. All other numbers have been calculated from info given

From the above table, we can see that in terms of Net Departmental area, Bidder 3 is providing more than the scheduled (briefed) area (8% more) which is what we would expect for a building of this nature.

They provided Net areas on a room by room basis.

The %age circulation area provided overall is slightly higher than as briefed.
This is made up of Children's and Adult percentages which look satisfactory on the Children's Hospital but are 35% more than briefed in the Adult's hospital.
This demonstrates a higher area of circulation within departments.

Planning and Engineering areas seem high in terms of percentages presented compared to the brief.

The %age Communication & Plant is similar to what we would expect in terms of Communication (although this may be distorted by the 'Area to be Designed Out' figure.

					Internal Environment White Space is identified and a note to say that it will be designed out to allow other space to be 'designed in'. This is a risk to the Board as the white space is not necessarily located where required. Ceiling Heights – scored under HTMs Corridor Widths – scored under HTMs Interior Design – Break out/dead ends Views out from end of wards through socialisation space – but no other opportunities for light penetration in to ward plan. Summary Points • High %age Department Circulation within Ward Plan indicates inefficient design • White Space and 'Area to be Designed Out' gives uncertainty of figures and is possible Risk to Board	BBCL design includes interlocking en-suites (versus external en-suites within the width of the bedroom), which inevitably increases circulation. **We believe we proved that the Board's exemplar en-suites allowed little widow area to the bedroom and would not have worked in practice.** We do not believe all the ward corridors in the exemplar met with Firecode which would have introduced additional area to resolve.
	Drawing Information	250				
Item #3	1;500 scale Masterplan proposals	30		**6**	*Reviewed Against:* *Section 1.2 - Accommodation Overview* *Section 3.0 - The Site (Whole Section)* *Section 4.0 - General Design Requirements (Whole Section) Section 5.1 - Minimum Standards for Design & Construction* *Section 5.5 – Sustainability* *Section 5.7 - Design for Disability* *Section 5.12.4 - Flexibility & Adaptability* *Section 7.1 – Masterplan* *Section 7.13 - Landscape Design* *Section 7.14 - Soft Landscaping Requirements* *Section 7.15 - Wayfinding & Signposting* *Section 7.17 - Integration of Healing Arts Strategy* *Section 7.18 - Secure by Design* *Section 8.3.3.7 - External Lighting.* *Appendix A - The Site* *Appendix D - Outline Planning* *Appendix G - Site Masterplan* *Appendix X - Critical Failures.* Evaluation Notes:	
					Accommodation Overview All provided and generally positioned in accordance with Masterplan.	**0**
					The Site This proposal alters the location of the towers which improves sunlight to the entrance area.	**+**
					General Design Requirements Good entrance/drop off at Wintergarden	**+**
					Minimum Standards for Design & Construction FM Flows around the site work well – generally in accordance with the exemplar Masterplan	**0**
					Design for Disability Report Distance of Disabled Car Parking from Main Entrance is greater than the exemplar	**-**
					Flexibility & Adaptability Enhanced ability for expansion of Hotblock to Central Park	**++**

Masterplan The masterplan layout is heavily influenced by the road layout and vehicle movements to the extent that 'Central Park' seems to be being eroded by the road system. However, the central park is reasonably well developed, with a range of activities and functions possible.	
The proposed design layout of the Children's hospital eats into the Children's park space. However, this is compensated by the provision of a large internal play area providing both a public arrival play space at the entrance and private spaces within the hospital.	**+**
The proposed alignment of the roads provides for an enlarged green space associated with the Labs which would provide better opportunity for the development of a quiet or private garden for visitors to the mortuary, without having to cross a road.	**++**
The proposed A&E arrangement provides a better landscape frontage than the exemplar in terms of planted screening however, the car parking at A&E on drop off is reverse in/out which is not ideal.	**+**
Junction at Car Parks 1A and 1B and road to front of hospital is awkward as it is slightly offset	**-**
The location of the cycle shelters associated with entrances looks good and is well distributed but the new cycle way and entrance links to A739/Moss Road are not shown or developed. There is no landscape development shown in the area of the two multi-storey car parks and proposed new main footway/cycleway link.	**Outside the site boundary!!**
Wayfinding & Signposting The entrance plaza area is clear and legible, as are the two entrances for the adults and children's hospitals.	**+**
Secure by Design Good open views and clearly structured routes.	**+**
Outline Planning Main Design Strategy differs from Board Exemplar in terms of location of Towers and therefore greater discussion will be required with the Planning Authority should this bidder be successful.	**The siting, design and external appearance are subject to reserved matters applications for all bidders.** Our Planning Consultant advised that he did not anticipate any major issue for our design with Glasgow Planners.
Critical Failures No critical failures identified.	
Transportation This proposal does not provide a transport 'hub' – although it does provide good drop off and inner loop for Fastlink and Buses. However, Fastlink requires a dedicated surface.	There is suggestion that our proposal did not create a transport hub, yet **the exemplar document from URS showed the fastlink area completely segregated from the hospital.** The proposal to locate the pickup/ drop off facilities alongside bus and provision for fastlink and create a hub is shown on our submission. This being the case **our design clearly exceeds the exemplar.** Why did we only achieve a 6 against the exemplar document? The statement regarding prioritisation of junctions is unclear as the proposal is signal controlled on the priority arms and operating as a roundabout on the other arms. Note that under iten 15, the comment ''very good level of detail given to the priority measures required for Fastlink'' contradicts Board's comments here.

					Short length of access road to children's multi storey car park may result in traffic backing up	At the next stage this would have been modelled in conjunction with car park access control systems and any necessary adjustments made.
					Summary Improvements to the Exemplar Masterplan are: • Strong separate identity of Children and Adult Hospitals • Green space to front of Labs Building • Large Courtyards created within Hot-Block • Bicycle Storage locations are good To be further developed if successful: • Transport Hub not fully integrated • Concerns over prioritisation of junctions • Car Park 2 Access road length	
Item # 4	1:500 departmental relationship drawings for all levels indicating functional relationships & main circulation routes	45		**3**	*Reviewed Against:* • *Adjacency Matrix* • *Interdepartmental Flows and Travel Distances* • *Clinical Output Specifications* Evaluation Notes:	
					Level – 01 (Basement) Negatives • Resilience partially compromised by removal of complete 'loop'	**The exemplar 1:500 did not include the 5 N° additional FM lifts that BMJ indicated on their 1:200 ground floor.** A loop to connect these lifts at basement level would have added significant area to the exemplar.
					Level 00 (Ground) Positives • Better natural light in to 'Hot Block' Negatives Negatives • Resilience of escalators and lifts at main entrance (no stairs)	**Positives not acknowledged:** **Separation of flows, better natural light to AAU, reduced travel distances, AAU entrance co-located with other ED entrances, reduced overshadowing of main entrance, simplified wayfinding in the Children's Hospital, better adjacency of fracture clinic to radiology.**
					• Separation of Ward Tower from Podium 'Hot Block' results in increased travel distances	**Incorrect if travel distances are compared with the exemplar.** Refer to our mark ups of exemplar AAU and ED.
					• Poor views from bedrooms in tower facing podium	**This is a 1:200 issue where natural light to rooms is highlighted as a positive.** AAU is short stay therefore views not considered essential. Poor views and no natural light to a number of rooms in exemplar. Eg **daylight to exemplar Immediate Assessment beds = 6. BBCL design = 22**
					Level 01 (First) Negatives	**Positives not acknowledged:** **Better separation of flows, better natural light to NCH Theatres / 23hr ward, reduced travel distances, simplified wayfinding in the Children's hospital, Flexibility of outpatient accommodation including future expansion capability** **Expansion capability of hot block** **Expansion capability of PICU** **Single point of arrival for all children's services to the Hot Floor, improved location of dining.**
					• Link to Neuro is via OPD (cross flows with visitors and out-patients)	**Incorrect. Separation of flows indicated on bid drg 02.03.08**
					• OPD flexibility (specialist/generic) is compromised by separation of clusters	**BB design has greater flexibility than the exemplar** where OPDs are dispersed over 3 floors
					• Nuclear Medicine is remote from Adult Imaging	**This was covered in RFI's during the bid**
					• Children's Cardiac testing not located adjacent to Generic OPD on same floor	**They have access to generic rooms from the central waiting area**
					Level 02 (Second) Negatives	**Positives not acknowledged:** **Better separation of flows with dedicated patient corridors, improved natural light to Critical Care and radiology, acute beds at this level for flexibility, flexibility of Children's wards due to direct adjacency**

					• Critical Care to Neuro not on same level	**Not explicit in Board's adjacency matrix or Clinical Output Spec**
					• Adult Imaging is configured over 3 floors – staffing implications	**Discussed during bid process with feedback that this could be managed**
					• Poor views from bedrooms in tower facing podium	**Restricted views from bedrooms at this level are similar to exemplar wards**
					• Split regen ward kitchens	BB design included additional area due to split
					Level 03 (Third) No comments for report	**Positives not acknowledged:** **Improved daylight to Theatres, separation of flows in NSGH, wards located on the same level as Theatres, potential for theatre expansion.**
					Level 04 (Fourth) Negatives	**Positives not acknowledged:** **Improved views from wards. Ward towers are lower than exemplar therefore travel times reduced.**
					• Split Cores compromise flexibility across floor plate of wards	**This was not raised as a significant issue during the dialogue process**
					• No outdoor space identified for DCFP	**Incorrect : Outdoor space shown on BB drawing No 02.14.01 and on 02.16.01 to the south of the atrium roof.**
Item # 5	1:200 departmental layouts reflect the required space standards and functionality	40		**4**	*Reviewed Against:*	
					• *Clinical Output Specifications*	
					• *Schedule of Accommodation*	
					• *Exemplar Layouts including Flows*	
					Evaluation Notes: **Acute Assessment Unit** Positives	**Positives not acknowledged:** **Interstitial en-suites increases window size / better daylight. Better separation of visitor flows from patient routes**
					• Close proximity of Immediate Assessment to Resus	
					• All bedrooms have natural daylight	
					Negatives	
					• Little opportunity to flex between clusters	**Similar if not better than exemplar**
					• Furthers cluster is remote from main entrance	**Similar to exemplar**
					• Fire escape routes split bed clusters	**Doors would be on hold open**
					Radiology Negatives	**Positives not acknowledged:** **Daylight to waiting areas and recovery. Dedicated route and entrance for CCU patients**
					• Significant impact on staffing as department is spread over 3 floors with no vertical connection	**Option included in bid text.**
					Critical Care Department Positives	
					• Daylight to all rooms	
					• Good location of entrance/reception	**The separation of flows have not been acknowledged**
					Negatives	
					• Observation compromised by layout	**The observation in the exemplar is not significantly better. The requirement for daylight to ICU bays was confirmed in RFI no34, which influenced our design.**
					• Inflexibility of clusters	**We dispute there is 'inflexibility' between clusters.**
					• Potential staffing inefficiency due to splitting of 20 bed HDU in to 2 x 10 bed clusters	**20 bed HDU not briefed. 4 pods briefed 3 of 10 and 1 of 9.**
					NCH Emergency Observation Ward Negatives	
					• Greater separation of ED and Observation Ward	**Incorrect – Exemplar 1:200 indicates nom. 15m door to door, BBCL design 14m door to door.**
					NCH Theatres Negatives	**Positives not acknowledged:** **Improved daylight to Theatres and recovery. Single inpatient entry point to theatres**
					• Poor proximity of Interventional Radiology and Cath Labs to Cardiac Theatres (across courtyard)	
					• Pre-op assessment and Recovery adjacency is poor	
					• Recovery – 23hr ward adjacency is poor	**These are directly adjacent to each other via a dedicated bridge link over the courtyard,**
					NCH Radiology	

					Negatives	
					• X0ray reading room is remote from clinical area	
					• Poor FM flow – Clean and Dirty cross over	**This appears to be because they enter through the same door!!!**
					• Poor patient flow	
Item # 6	1:200 departmental drawing for Accident & Emergency Department, fully Annotated	10		**7**	*Reviewed Against:*	
					• *Clinical Output Specifications*	
					• *Schedule of Accommodation*	
					• *Exemplar Layouts including Flows*	
					Evaluation Notes: Positives	**Positives not acknowledged:** **Daylight provided to waiting areas, entrances, Minors and some staff areas. No crossovers with AAU visitors / Outpatients. Improved link to helipad. Significantly reduced travel distances to Theatres, Critical Care and Wards**
					• Good links to CT & MRI	
					• Direct route to Resus	
					Negatives	
					• Access to staff change through main department	
tem # 7	1:200 departmental drawing for Adult Theatres Department, fully Annotated	10		**6**	*Reviewed Against:* • *Clinical Output Specifications* • *Schedule of Accommodation* • *Exemplar Layouts including Flows* Evaluation Notes:	
					No comments for report	**No recognition of improved daylight to Theatres/ Recovery. Potential expansion. Logical circulation, improved flows to Endoscopy.**
Item # 8	1:200 departmental drawing for Adult Ward, fully annotated	10		**3**	*Reviewed Against:* • *Clinical Output Specifications* • *Schedule of Accommodation* • *Exemplar Layouts including Flows*	
					Evaluation Notes:	**Positives not acknowledged: Better views, improved daylight to bedrooms. Reduced travel distances to bed lifts. Reduced congestion in lift lobbies due to split cores.**
					Negatives	
					• Split cores limit flexibility across floor plate	
					• No visitor/staff access by stair (Hospital at Night / Resus Team)	
					• Splitting of support accommodation adds complexity in staff/patient access (e.g. therapy space, staff changing)	
					• Resilience is poor due to ward tower layout (e.g. single Dirty FM lift per 2 wards)	**The Firefighting lifts (1no/ward) could have been used as FM if acceptable to the Fire Officer. Additional basement corridor would have been required.**
					• Ward is longer than exemplar by 23m	**Incorrect 9m**
					• Observation is restricted due to small window	**900mm wide screen shown. Optimum location considered more important than size.**
					• Location of nurse touch down spaces do not allow for direct patient observation	Detail could have been resolved at the next stage
					• Enclosed nurses station does not facilitate observation	**Graphical error on plans. Easily rectified at the next stage.**
Item # 9	1:200 departmental drawing for Children's Ward, fully annotated	10		**5**	*Reviewed Against:* • *Clinical Output Specifications* • *Schedule of Accommodation* • *Exemplar Layouts including Flows*	
					Evaluation Notes: Positives • Provides good flexibility over wards • Provides good views from bedrooms	
					Negatives	
					• Ward support at different level	

					• Adolescent area not identified	**Is included but not annotated as such on plan.**
					• Renal area is remote from ward	**Incorrect : Directly adjacent**
Item # 10	1:200 departmental drawing for Children's A&E, fully annotated	10		**6**	*Reviewed Against:* • *Clinical Output Specifications* • *Schedule of Accommodation* • *Exemplar Layouts including Flows* Evaluation Notes: Positives • Good separation of Majors & Minors • Front door to Triage and Resus is well resolved Negatives • Sub-optimal link to Observation Ward • Observation of Minors Cubicles sub-optimal • No 'thru and thru' Triage Rooms	**Positives not acknowledged:** **Daylight provided to waiting areas, entrances** **Less than the exemplar 1:200 layout. Observation no worse than exemplar**
Item # 11	1:50 room layout and wall elevations fully developed	10		**6**	*Reviewed Against:* *4.0* *5.1* *5.2* *5.4* *5.6* *5.7* *5.8* *5.12* *7.2* *7.3* *7.4* *7.5* *7.6* *7.9* *7.10* *7.11* *AppE*	
					AppJ + M&E Integration with Ceiling Design **Evaluation Notes:**	
					General Design Bidder has provided 1:50 layouts which generally indicate what they have been asked to provide.	
					Minimum Design Standards Critical Dimensions appear to be provided on the rooms drawn.	
					Integration of Design 1:50s illustrate good integrated design solutions	
					DDA – scored under 1:200s	
					Equipment Requirements Rooms drawn appear to provide adequate space for equipment.	
					Flexibility & Adaptability Key Rooms drawn are regular shapes which allow for future flexibility/adaptability.	
					Exemplar C Sheets No significant discrepancies identified	
					Ceiling Heights – Scored under HTMs etc	
					Doors & Screens Clinically, the observation windows were the most important consideration as this was the main deviation from the	**900mm wide screen shown. Optimum location considered more important than size.**

					exemplar (outboard to in-between en-suites) and the ERs request 'large' observation windows. Bidder 3 has provided a relatively small observation window. The view of the Clinical Group was that the window does not provide sufficient area for observation.	
					Windows Provide good views out and light in.	
					Finishes – Scored under 1:200 Departmental Layouts	
					Interior Design – scored under 3d images	
					Architectural Hardware – Scored under Door & Ironmongery Schedules	
Item # 12	1:200 Elevations – incorporating external signage proposals	5		**7**	*Reviewed Against:* *4.2 4.3 4.5 5.1 5.9 5.10 7.1 7.2 7.7 7.15* *App M&E 3-2.26* *AppD* **Evaluation Notes:** General Design Clear architectural expression of the adult's tower and children's hospital with 'Hot-Block' between provides an Iconic Design Proposal 'Wintergarden' links two hospitals well Clarity of Entrances Improved sunlight to man entrance area Minimum Standards Satisfied Materials Robust Materials Identified Energy Strategy – scored under sustainability Masterplan & Exemplar Design is further developed than the exemplar but changes the principles of the exemplar massing. Proposal has moved the towers off of the podium which allows more light to the entrance area. However, the design group raised concern with regard to the over-shadowing of the Neuro Sciences Building and the streetscape. The Hot Block has been created over 4 storeys (compared to 3 in the exemplar) which has allowed larger courtyards to be created.	
					Building Envelope – scored under 1:200 sections Way Finding & Signposting Approach to building and entrances are clear which assists external wayfinding	
Item # 13	1:200 Exemplar sections	5		**6**	*Reviewed Against:* *4.2* *4.4* *5.1* *5.4* *5.10* *7.2* *7.3* *7.7* *7.12* *M&E (plant & distribution) STRUCT eg flat slab?* *9.5*	

					Evaluation Notes: General Design Sections adequately demonstrate the proposals Internal Environment Courtyards create more natural light into Hot Block Spaces Proximity of Tower and Hot-block at lower levels is unacceptable in terms of patient privacy/dignity Minimum Standards Satisfied Integration of Design Design allows for separation of tower structure and 'hot-block' Exemplar Sections demonstrate courtyards to hot block, winter garden and children's hospital atrium	**AAU is the only location where rooms potentially look into each other. This could have been overcome by treatment of the glass to the windows of the Immediate Assessment Bays. These were primarily internal rooms in the exemplar.**
					Ceiling Heights & Voids Satisfactory Building Envelope Building Envelope meets ERs Staircases Ramps Lifts etc Building design is devised around a lift strategy. Staircases provided in towers are for fire escape only. Therefore no public use stairs within the towers. 2 stair cores are provided to wards. Basements & Tunnels Basement tunnel link from hospital to labs is illustrated (as exemplar)	
Item # 14	**3D images / perspective (internal & external) indicating the following:-** ③ Architectural vision – space, height, form, composition, scale, character and use of materials ③ Hospital Main Entrance / atrium / public space proposals / visuals	2 0		**8**	*Reviewed Against:* *4.2* *4.3* *4.4* *4.5* *5.9* *7.2* *7.2.10 + 7.2.22,* *7.9* *7.10* *7.15* *7.17* *AppD Masterplan Document* **Evaluation Notes:** Spaces Good use of internal and external spaces – Large Atriums and Central Park Area Citizen Satisfaction Strong sense of arrival illustrated.	
					Internal Environment Attractive internal Wintergarden/entrance hall space Urban & Social Integration Strong concept provides social integration within internal and external spaces. Dining space is located in main wintergarden which assists in integrating the public within	

					the building Park spaces address the labs building well <u>Materials & Finishes</u> Images illustrate high quality detail and finishes <u>Entrances</u> Strong Identity for both hospitals Main entrance is well located and approach to the building is clear. Strong sense of arrival within children's hospital atrium <u>Wayfinding – scored under wayfinding</u> <u>Art Integration – scored under Arts Strategy</u>	
Item # 15	**1:500 site hard & soft landscaping proposals indicating:** • Soft landscaping strategy • Hard landscaping strategy	1 0		**6**	*Reviewed Against:* **4.1, 4.2, 4.3, 4.5, 7.1, 7.13, 7.14, 7.15, 7.17, 7.18, 9.12, 9.13, 9.14** Evaluation Notes: The general landscape structure indicated by the masterplan is loose and unconvincing – this may simply be because of a lack of detailed information indicating the actual intent. Glazed entrance hall is designated a "winter garden" but no plants provided internally. The illustration suggests a light, airy space, but does not create a winter garden and therefore the sense of the landscape moving through the building suggested in the Bidder's presentation is not achieved. Very good level of detail given to the priority measures required for fastlink. Concern over the junction with Langlands Road, no information on how that junction is managed Limited information on the extent of reinstated areas of road construction Layout will perhaps encourage primarily the use of the west car park after drop- off Modification required to the service road onto the boulevard Junction to the west car park and vehicle control needs to be considered.	**<u>This is inconsistent as Item 3 highlights the Central Park is 'reasonably well developed' and states other positives regarding the landscaping adjacent to the Labs and A&E.</u>** **<u>It is stated that the level of detail for the priority measures required for fastlink are "very good", this being the case, why did it only get scored as a 6?</u>** **Layout will perhaps encourage primary use to the west car park, this is subjective and unclear if considered positive or otherwise.** *"Modifications required to the services road onto the boulevard*", **this statement is ambiguous yet we appear to be marked down on this.** *"Concerns over junction with Langlands Road**", this*** **<u>statement is unclear as Langlands Road is adjacent to Elder Park and on the other side of the A739 Skipness Drive.</u>** **The existing junction which connects onto the blue light route outwith the site boundary may need some form of traffic management. Otherwise, we have modified the junction to a ''give way'' and staggered it.** …encourage primarlily the use of … **This comment is subjective and unclear if considered by the Board to be a positive or negative comment.**
15contd/	③ Car Parking arrangements with distribution of spaces and use identified ③ Areas of differing Carriageway Construction ③ Road, footway and cycle way geometry ③ Indicative Signalised layouts at external roads				*Reviewed Against:* *5.7* *7.1* Evaluation Notes: <u>Disability Access</u> Layout of elements within masterplan generally considers DDA however DDA will need to be fully developed as design progresses. <u>Car Parking shown on Masterplan</u> Distribution of spaces as per masterplan	
15contd/	③ Retention / protection of existing trees				*Reviewed Against:* *Hirst* *TPO* *Planning Conditions*	

					Evaluation Notes: Generally as per exemplar	
15contd/	③ Incorporation of art				*Reviewed Against: 7.17* Evaluation Notes: Scored under arts section.	
15contd/	③ Special features				*Reviewed Against:* *additional special features not provided on exemplar etc* Evaluation Notes: Creation of park/green space outside Labs building is an improvement over exemplar	
15contd/	③ Courtyards				*Reviewed Against: 7.13.19* Evaluation Notes: There are a large number of courtyard spaces. However, these are undeveloped in terms of Landscape; therefore it's not easy to tell whether they have an ascribed function or whether they are reasonably accessible.	
Item # 16	Finishes Schedule for 11 Departments, and key circulation & communication routes, and main entrances	10		**6**	*Reviewed Against:* *5.6* *7.9* *7.10* Evaluation Notes: Generally meets ERs	
Item # 17	Door & ironmongery Schedule for 11 Departments, key circulation & communication routes, and main entrances	10		**6**	Reviewed Against: 7.11.1 8.3.26 Evaluation Notes: Generally meets ERs	
Item # 18	Roof level: Typical layout indicating structure, including helipad (Acute Adults & Children's)	5		**5**	*Reviewed Against* Roof requirements and helipad requirements Evaluation Notes: No helipad structure information provided	**Helipad structure was shown on 3d drawings ref 0222-0101;0102;0103. 0222-0201.**
Item # 19	Architectural design strategy statement in support of drawing information	5		**6**	*Reviewed Against:* *4.0* *Masterplan Document* Evaluation Notes: Strong concept of separation of tower hot block and children's hospital. Good identity separation of Children & Adult Hospitals Text tries to explain major clinical departures from exemplar: • Critical Care to Neuro route ○ The Clinical Group have reviewed this journey and clarifications issued during CD. This would need to be resolved if this bidder is successful • Imaging over 3 floors	

					○ The Clinical Group have reviewed this journey and clarifications issued during CD. This would need to be resolved if this bidder is successful • In-patient Travel Distances • The clinical group have reviewed travel distances within this proposal and have found them to be significantly greater than the exemplar.	**We do not believe BB travel distances are significantly greater. Refer to 1:200 exemplar mark ups, which indicate BB distances are often shorter.**
Item # 20	Wayfinding strategy	5		**6**	*Reviewed Against:* *7.15* Evaluation Notes: Separation of Emergency and Public flows simplifies wayfinding in this proposal. However travel distances are significantly longer than the exemplar which will hinder intuitive way finding. Some routes within the adult hospital are convoluted.	**We do not believe travel distances are significantly greater. Refer to 1:200 exemplar mark ups, which indicate BB distances are often shorter.**
	Design Strategy	**155**				
Item # 21	Acoustic Strategy & Report	5		**6**	*Reviewed Against:* Appendix S Evaluation Notes: Positive: • Thorough response to the environmental noise break-out. • Comments upon conflict between helicopter noise and natural ventilation strategy • Comprehensive approach to dealing with vibration • Operational service noise levels addressed Negative: • Not clear how rain noise is addressed • Variations from HTM08-01	**All roof areas above occupied spaces clearly illustrated concrete (minimum 200 thick) and therefore would have provided a good insulation against rain noise.** Only plant room areas had lightweight roofing material (standing seam or similar).
Item # 22	Arts Strategy	5		**6**	integration with the building construction (not 'added on') 7.17 *Reviewed Against:* Evaluation Notes: ③ Fully meets the threshold set out by the Employer's Requirements, with excellently communicated approach and firm understanding of requirements. ③	Why only a 6?
Item # 23	Fire engineering design strategy including drawings	5		**5**	*Reviewed Against:* *5.11* *AppR* Evaluation Notes: Bidder 3 Balfour Beatty (SAFE) • Glasgow City Council Building Standards have apparently 'agreed they had no objections in principle to the fire strategy, with fine detail subject to further review'. It would be good to know that the meeting notes contained with the Submission have been ratified by Building Control?	**If this were raised as a clarification question during assessment then we could have responded to give the additional comfort required (over and above the factual statement in the report).**
					• Helipad identified as key issue but not mentioned within Fire Strategy.	**Identified as a key issue for the project, rather than a key issue for the fire strategy. The fire safety design of helipads is fairly straightforward (e.g. following guidelines in HBN 15-03) and**

						the key points from a M&E and structural perspective are outlined in the M&E helipad strategy (Section 3.22) and the structural strategy (section 3.28) respectively
					• Intermediate beams do not require fire protection. What about compartmentation and sub-compartmentation. Unprotected steelwork can cause loss of integrity to fire separating walls and compromise progressive horizontal evacuation strategy.	**Images of the typical fire fighting provisions are indicated on bid drg no. 02.12.04** **The wording of the section would have been better written as "some intermediate beams" rather than "the intermediate beams"**
					• Atrium design 2.5mw is equivalent to a fire breaking out of the accommodation adjacent to the atrium but the report also mentions fire shutters to retail.	**2.5MW is considered appropriate for a sprinkler-controlled fire e.g. any fire breaking-out of accommodation adjacent to the atrium. The fire strategy specifies alternative options for accommodation on the atrium base where sprinklers may not be the best option or viable e.g. islands of combustibles, containment of combustibles within a fire-enclosure. This was explored further in the "retail" section where, if sprinklers didn't prove viable or the best option, an enclosure could be used and the open-ness usually desired for retail could be enabled by use of fire curtains or shutters, which deploy in the event of a fire.**
					• *Lifts not in an evacuate or alarm/alert zone can continued to be used*? In relation to power supplies how would zones work with horizontal evacuation?	**Lifts are all on essential supply. The proposal for continued operation of lifts in zones neither in "evacuate" or "alert" is valuable for "mission continuity" and escape, and has been validated on previous hospital projects. From a mission continuity perspective if all the lifts were to become non-operative on alarm (particularly a false alarm) then the impact is likely to be significant. If lifts remote from a fire (e.g. stats in HTM05-03 Part L records over 80% of fires are contained in *room* of fire origin). Clearly the Health Board has to be happy with the use of lifts, which is why the paragraph was phrased to identify the opportunity. This is an example of an item on our agenda for discussion with the Health Board at the meeting on 7th July 2009, where the Board's Fire Engineer was not present as requested by us.**
					• Fire/ Smoke/ Addressable Dampers strategy should be clearly defined.	**This is covered in the "Ventilation & Air" report (Section 3.09). Again, an item on our agenda for discussion at the meeting on 7th July 2009**
Item # 24	Structural Engineering design strategy including outline design drawings demonstrating structural philosophy	5		**7**	*Reviewed Against* Engineering ERs Evaluation Notes: Positive Observations providing additional benefits: Ward tower off podium – no transfer structure– savings on cost and programme delivery High quality of information provided Other observations: Basement remains, tunnel link to labs /FM remains Structural Design Strategy meets the requirements of the ER's Sub structure - Comparative exercise undertaken on foundations, with overall specification document covering all the elements. Rotary bored cast insitu piles proposed Superstructure – In situ rc frame, steel roof at top storey for labs, children's and 'hot' block Slip form core structures Ward blocks – steel frame, rc composite slabs on decking Helipad in accordance with HBN 15-03, 13.5 t helicopter	**If no negative comments made and evaluation is positive and appears to have addressed bid requirements why only a score of 7?**
Item # 25	Drainage design strategy including 1:1250 (or greater) plans showing drainage provision in support of SUDS and Drainage Strategy1:500 scale plans showing:- ③ Layout of roads	5		**6**	*Reviewed Against* ER requirement Evaluation Notes: Good clear approach to drainage on the site. Adopts the principles of the URS strategy - meets exemplar standards Scopes out and allows for redundancies in flow surveys, suggest that it has been well thought out.	**If no negative comments made and evaluation is positive and appears to have addressed bid requirements why only a score of 6?**

	and buildings Layout of sewers, outfalls, underground storage, and SUDS features				Surface Water Management Plan proposed to be developed - good approach, similar to what the drainage strategy report seeks to achieve. Culvert diversions recognise the need to keep the blue light route open.	
Item # 26	Main incoming utilities design / connection strategy including Schematic for Main Services distribution from Energy Centre to Main Hospital Building – tunnel cross sections and 1:200 Energy Centre Services	5		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.18 - 8.1.15 - 8.1.16 - 8.1.19 - 8.1.23 - 8.3.5.14 - 8.3.9 - 9.18 - 9.5 - 9.7.5), drawings and appendices* Evaluation Notes: Incoming utilities as ER's. Updated quotation required for gas to suit retained estate loads Tunnel providing access to main service routes with separate zone for AGV's Three pipe flow and return to main hospitals (N+1)	**The Evaluation notes are positive. Our bid was in compliance with the ER's and generally followed their prescriptive provisions. The introduction of the Retained Estate load would require all bidders to increase the capacity of the gas supply connection. The Board team confirmed that they would seek the revised quote.**
Item # 27	Water Services Strategy including Hot & Cold Water Services Schematic, Filtered Water Schematic and Renal Water Schematic	5		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.28 - 8.29 - 8.2.10), drawings and appendices* Evaluation Notes: Provision of temperature control to specialist areas water supplies. Stainless Steel pipework for water services Some risk perceived (low) due to bidders reluctance to confirm compliance with draft SHTM's included in ER's	**Note that Compliance with NHS Publications is covered in section 7.1 and not those sections identified against which we have been scored.**
Item # 28	Heating design strategy including MTHW Schematic & LTHW Schematic	5		**7**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2.7), drawings and appendices* Evaluation Notes: Boiler Economisers included, full 10:1 modulating boilers included, 3 port valves included (option on 2 port for discussion) Multiple CHP units, Ground source heat pump. Time zoned valves to departments.	**The evaluation notes are all positive. Our strategy was generally as per the ER's for the main energy centre other than including the capacity to serve the retained estate. The Board had in effect steered the designers to this approach.**
Item # 29	Ventilation & air treatment design strategy including Schematic drawings	1 0		**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2.11 - 5.6 - 5.10 - 8.2.13 - 8.2.14 - 8.2.15 - 8.2.21.2 - 8.2.22.2 - 8.2.20.0 - 8.3.36), drawings and appendices* Evaluation Notes: Active chilled beams, Fan coils where required will be fitted outwith clinical zone. Humidity control within specialist areas, Naturally vented atrium. Some risk perceived (significant) due to bidders reluctance to confirm compliance with draft SHTM's included in ER's	**Note that Compliance with NHS Publications is covered in section 7.1 and not those sections identified against which we have been scored.**
Item # 30	Mains and Sub-mains power distribution design strategy including MV Power Schematic and LV Power	10		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.16 - 8.1.21 - 8.3.2 - 8.3.31 8.1.1.13 - 8.1.12.5 - 8.3.30), drawings and appendices* Evaluation Notes: HV cables not interlaced at sub stations, reduced UPS battery autonomy. Transformer ratings suspect (clarification issued confirming these will be rated as required)	**All evaluation notes appear to be negative. The alternative HV strategy proposed in bid which effectively had same resilience as ER's and provided major cost benefit.** **Reference to the transformer rating appears to relate to our evaluation of building maximum demand.** **There was considerable discussion with the Board advisors on this and agreements made in principle** **Note that Compliance with NHS Publications is covered in section 7.1 and not those sections identified against which we have been scored.**

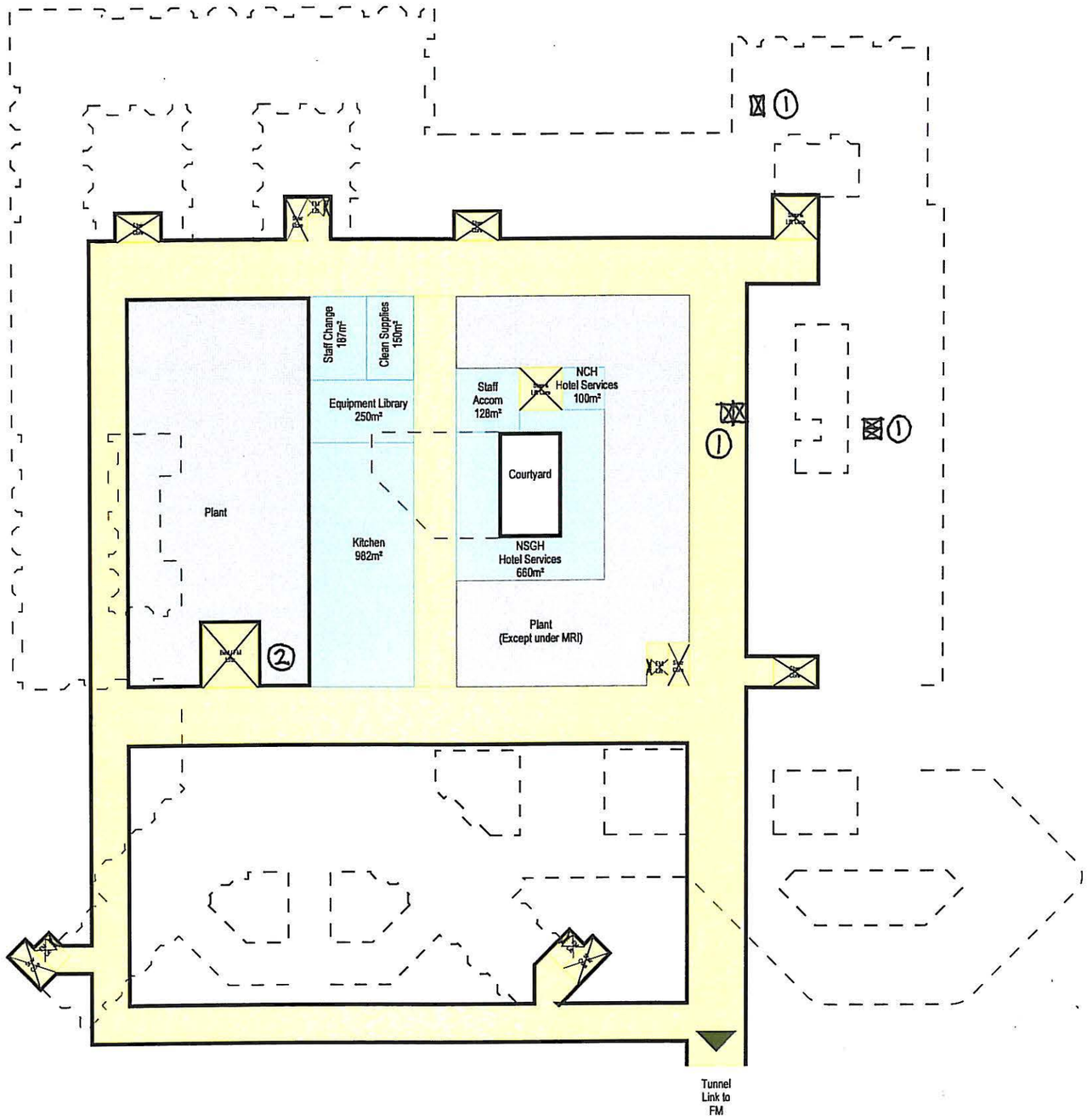
					Some risk perceived (low) due to bidders reluctance to confirm compliance with draft SHTM's included in ER's	
Item # 31	Lighting design strategy	10		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.3.3), drawings and appendices* Evaluation Notes: In accordance with ER's.	**Bid proposals were in full compliance with ER's and guidance documents.**
Item # 32	Lift Engineering design strategy	10		**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.3.34, 7.12.4), drawings and appendices* Evaluation Notes: As ER's Reliance on one set of escalators and twin lifts to accommodate all flows from Adult's main entrance possess a potentially significant bottleneck during periods of escalator maintenance/breakdown as no staircases are available as an alternative	**We understand from Board's Bid debriefing meeting that the only reason for this section being marked down was due to Board's concern with the lack of staircase immediately adjacent to the escalators at the main entrance. Staircase could have been easily added at the next stage.** (Think of throughput at Heathrow. - Terminal 5 at Heathrow has no stair immediately after security, only escalator access.)
Item # 33	Communication design strategy	5		**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.3.5 - 8.3.6 - 8.3.7), drawings and appendices* Evaluation Notes: Reduced Board rack allowance in main equipment Rooms.	**Our understanding is that we met the full requirements of the ER's together with additional racking for GEM's identified during Dialogue.** **Further feedback from the Board identified they were concerned with resilience as both IT Equipment rooms were basement located.** **Evaluation notes assessment and scoring appears inconsistent.**
Item # 34	Protective systems design strategy including Sprinklers schematic and Fire alarm & damper controls Schematic	5		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2.19-8.2.30-8.2.31-8.2.32-8.3.4-8.3.27-8.3.28), drawings and appendices* Evaluation Notes: Reduced building height allows dry riser in lieu of wet. MICC Cabling included Smoke ventilation to basement.	
Item # 35	Medical gases design strategy including schematic drawings	5		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.22), drawings and appendices* Evaluation Notes: Twin VIE's proposed (final location to be agreed) Connection to retained estate by Board	**Bid proposal exceeded the requirements of the ER's and we could reasonably have anticipated higher scoring for this item.**
Item # 36	Pneumatic tube system design strategy including schematic drawings	5		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.31), drawings and appendices* Evaluation Notes: System as ER's (to be developed during detailed design)	
Item # 37	Plant room design strategy	5		**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.3.10 - 8.1.4.2 - 8.1.5 - 8.3.32.2 - 8.3.36), drawings and appendices* Evaluation Notes: Most plant in roof top plant rooms with water storage in basement, Chillers on Podium roof No fire separation in Energy Centre	**Further feedback from the Board confirms this item was scored down due to lack of fire separation and therefore resilience in the Energy Centre. The scheme is in full compliance with Building Regulations.** The Board's ideal was to have two EC's collocated within a single building footprint whilst maintaining a physical barrier between the two. **This was achieved for the generators but insufficient space for similar configuration of boiler and CHP plant.** **Any fire separation issues could have been dealt with at the next stage.**
Item # 38	Control systems including BMS schematic	5		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2), drawings and appendices*	**We view this as a positive attribute. Power distribution to chillers and pumps was designed to provide resilience of supply via separate transformers and section boards.**

					*Ev*aluation Notes: Chiller Pump power not to be from single source.	
Item # 39	Helipad M&E services design strategy	5		**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including), drawings and appendices* Evaluation Notes: In accordance with HBN. Consideration required for bedroom natural ventilation directly adjacent flight path re noise and pollutants.	The service provision within the bid is in support of the requirements of BB specialist helipad advisor (who wrote the HTM!). Location of helipad on ward tower is as exemplar and could cause a potential issue with open windows due to noise and air movement. Users may require to close windows in event of helicopter movements. Wards are not reliant on natural ventilation as bedrooms are provided with mechanical ventilation and chilled beam cooling so the windows, although capable of opening, do not have to be open and could have been permanently locked shut.
Item # 40	Maintenance & major plant replacement strategy	35		**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including), drawings and appendices* Evaluation Notes: Generators at first floor Hospital plant replaceable via roof Access platforms to be designed out N+1 main heating distribution Water buffer vessels sized to fit in FM lifts MRI scanner removal is not straightforward	**The MRI is located in the "hot block" to suit clinical planning.** All other comments could have been dealt with at the next stage.
	Sustainability	**75**				
Item # 41	Sustainable design statement	25		**5**	Reviewed Against : Sections :3.20 & & 8.2 Statements and demonstration are in places inconsistent and are not supported with high degree of clarity and data. Achievement of the operational carbon target was initially indicated as dependent on an adjacent biogas development being in place which has no certainty of delivery. Clarification received during tender evaluation stated a biofuel would be used but this is not being evaluated as is not accurately demonstrated in the bid for inclusion. Adjusted bid assessment indicates an adjusted operational Carbon Output of 106.kg/CO2/m sqr. p.a.	**Bid proposal was based on biogas or liquid biofuel. The use of a biofuel is the only way in which compliance with 80 kgCO2 could be achieved. Either option would require commitment from the Board to external suppliers.** **Biogas option has been disallowed by the assessor on the basis that it did not have certainty of delivery nor was full financial assessment provided. This could not be provided as tariff information could not be established during the bid period.** **Our alternative liquid biofuel proposal was also disallowed due to lack of logistical information, cost impact and emission analysis. We had confirmed that cost would be met within the current capex and that emission rate was identical to that of the biogas.**
Item # 42	BREEAM scoring schedule	25		**6**	*Reviewed Against: Section 3.21* -Bidder has asserted with minimal qualification that their design would achieve BREEAM Excellent. -Minor variance from exemplar.	If design achieves bid "excellent" requirement with minimal qualifications why only a score of 6? Our Breeam assessor is a licensed BREEAM Healthcare assessor, bringing more certainty to our process.
Item # 43	Energy strategy including approach to renewables, sustainability	25		**5**	*Reviewed Against : Sections 3.20 &8.2* -Bidder asserted that they would better mandatory NHS energy targets. -SPP6/PAN84 compliance will be achieved. -Good range of additional renewable energy sources included in bid. -Projected energy costs are assessed as lower median.	**This item would appear to have been scored on the basis of the same information as item 41 and similar comments would apply.**

					-Uncertainty is present over C02 output , if a biofuel is used then there is no detail if this is affordable and can be taken as a secure energy source and this has not being demonstrated as a zero carbon fuel as suggested in the clarification. If biofuel is not used then the C02 figures are over the 105kg/CO2/m sqr. p.a. limit of SHTM 07 - 02: EnCO2de - making energy work in healthcare (published. April 2006).	
	AEDET Review	**50**				
Item # 44	Overall AEDET review score	50		**6**	*Reviewed Against: 4.6* Evaluation Notes AEDET Review of benchmark scored 47.5 AEDET Review of Bidder 3 scored 44.3	**BB team scoring was Exemplar – 48, BBCL design 51.1 This difference is due to the Board's clinical review comparing BB design to the exemplar.**

(1) 5NO. ADDITIONAL FM LIFTS WERE INDICATED ON THE NCH E.D. LAYOUT ISSUED MIDWAY THRU THE BID. RESILIENCE WOULD BE PARTIALLY COMPROMISED IF A LOOP WAS NOT CREATED TO PICK UP THESE LIFTS.

(2) STAIR REQUIRED FOR ESCAPE.



Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
DEPARTMENTAL ADJANCIES LEVEL -1

Drawing No. | Revision
PD-HLM-L(00)-01-X-XX-001*

Scale @ A1: 1:500 | Drawn: JCD
Date: 28/04/2009 | Checked: HS

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A52523997

(1) DEEP PLAN DEPARTMENTS WITH LIMITED DAYLIGHT

(2) POOR DAYLIGHT + VIEWS DUE TO OVERHANG OF 1ST FLOOR ABOVE. INCREASED HEADROOM REQUIRED FOR AMBULANCES.

(3) PATIENT PRIVACY & DIGNITY COMPROMISED DUE TO CROSSOVER OF AAU VISITORS/OPD WITH PATIENT ROUTES TO AAU, CRITICAL CARE AND THEATRES.

(4) LONG TRAVEL DISTANCE FROM HELIPAD LIFT TO RESUS AND FROM RESUS TO THEATRE LIFT ACCESS.

(5) LAYOUT DOES NOT REFLECT EXEMPLAR 1:200 FOR NCH. OBSERVATION WARD IS FURTHER FROM ED.

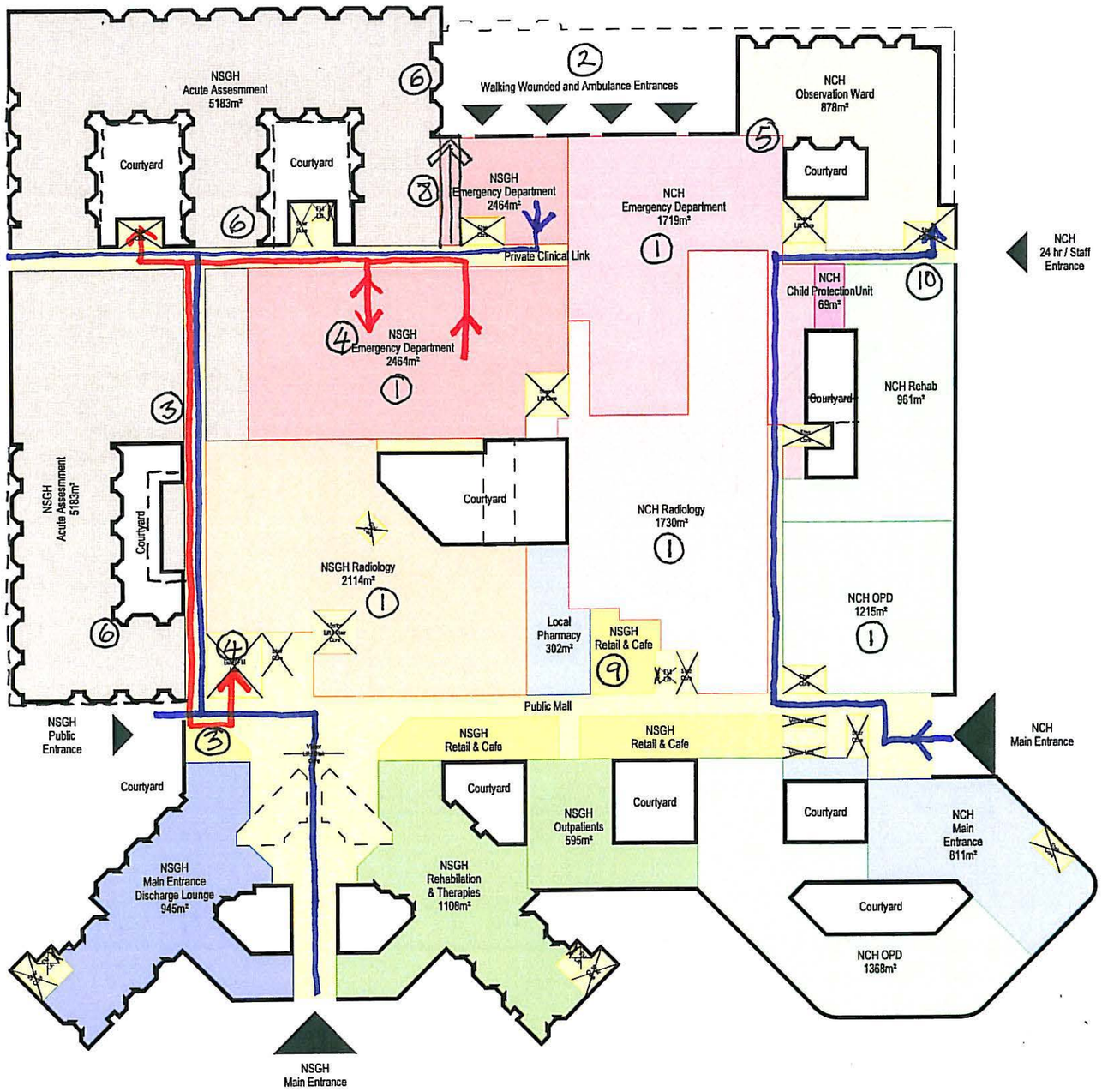
(6) POOR VIEWS & DAYLIGHT TO AAU BEDROOMS. REFER TO 1:200 MARK UP.

(7) AAU ENTRANCE REMOTE FROM ED ENTRANCES.

(8) HOSPITAL STREET REQUIRES A ROUTE TO OUTSIDE.

(9) RETAIL BELOW THEATRES IS NOT PERMISSABLE.

(10) CONVOLUTED VISITOR ROUTE TO PICU.



A52523997

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
DEPARTMENTAL ADJANCIES LEVEL 00

Drawing No.	Revision
PD-HLM-L(00)00-X-XX-001 *	

Scale @ A1	Drawn
1:500	JCD
Date	Checked
28/04/2009	HS

HLM ARCHITECTS

bmj architects

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① DEEP PLAN DEPARTMENTS WITH LIMITED DAYLIGHT.

② PATIENT PRIVACY & DIGNITY COMPROMISED DUE TO CROSSOVER OF VISITORS AND PATIENT LINK TO NEUROSCIENCES.

③ NEURO LINK INVOLVES 5NO. RAMPS AT 1:20 GRADIENT WHICH IS NOT IDEAL FOR TRANSFERRING NEURO PATIENTS.

④ CROSSOVER OF VISITORS AND IN-PATIENT ROUTE TO RADIOLOGY.

⑤ CROSSOVER OF VISITORS AND PATIENT ROUTE TO STROKE WARD.

⑥ CROSSOVER OF OUT-PATIENTS AND IN-PATIENT ROUTE TO NUCLEAR MEDICINE.

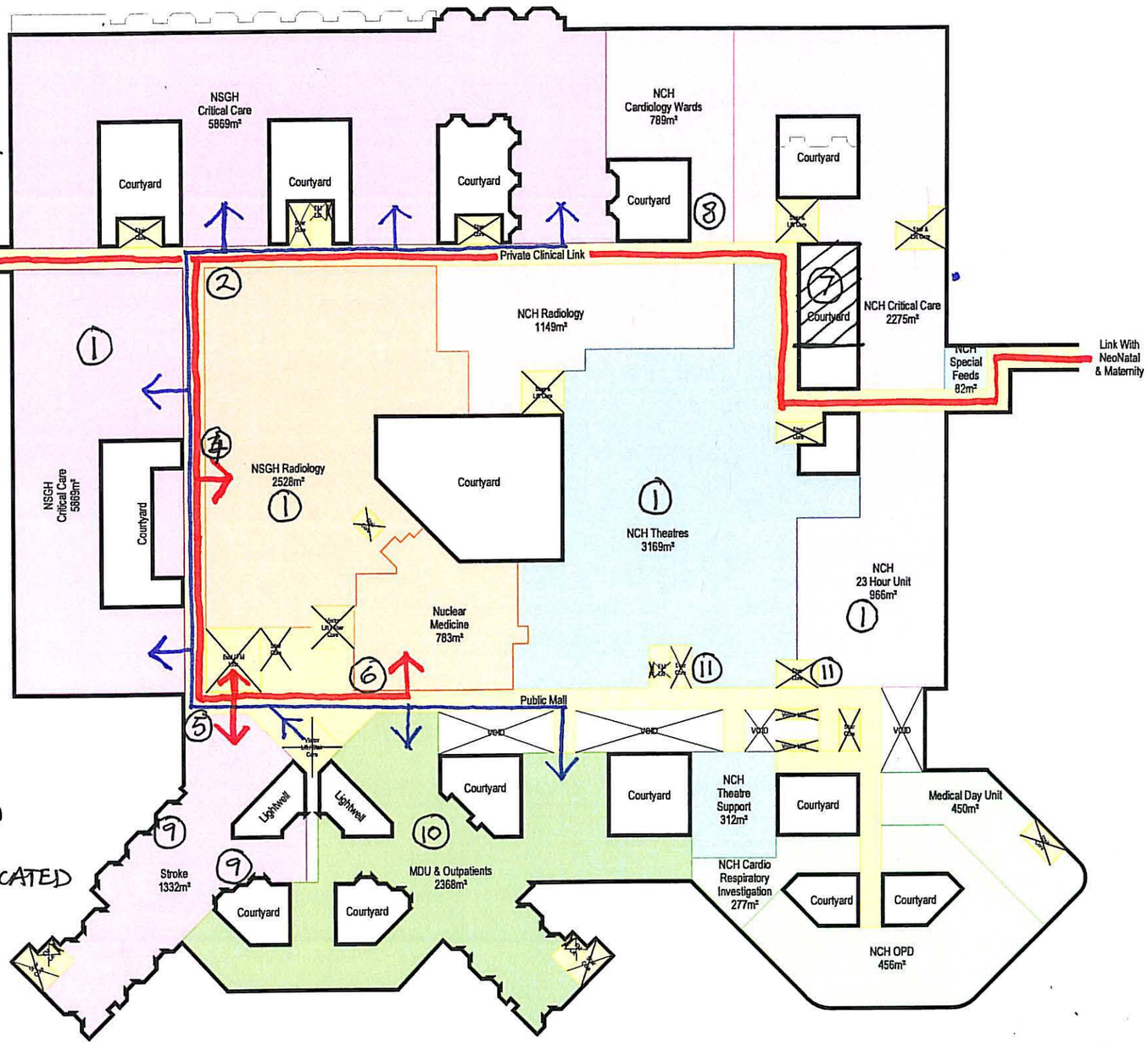
⑦ NO DAYLIGHT DUE TO FLOOR ABOVE.

⑧ NO VISITOR ACCESS TO CARDIOLOGY WARD FROM NCH ENTRANCE.

⑨ POOR VIEWS TO SOME STROKE WARD BEDROOMS.

⑩ OPD FLEXIBILITY LIMITED DUE TO SPLIT OVER 3 LEVELS.

⑪ ADDITIONAL PATIENT LIFTS INDICATED ON NCH EXEMPLAR 1:200'S.



A	Day Case Unit Removed	08/05/09	JD

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS
GREATER GLASGOW
AND CLYDE

Title
DEPARTMENTAL
ADJANCIES
LEVEL 01

Drawing No. Revision
PD-HLM-L(00)01-X-XX-001A

Scale @ A1	Drawn
1:500	JCD
Date	Checked
28/04/2009	HS

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Boswell Mitchell & Johnston

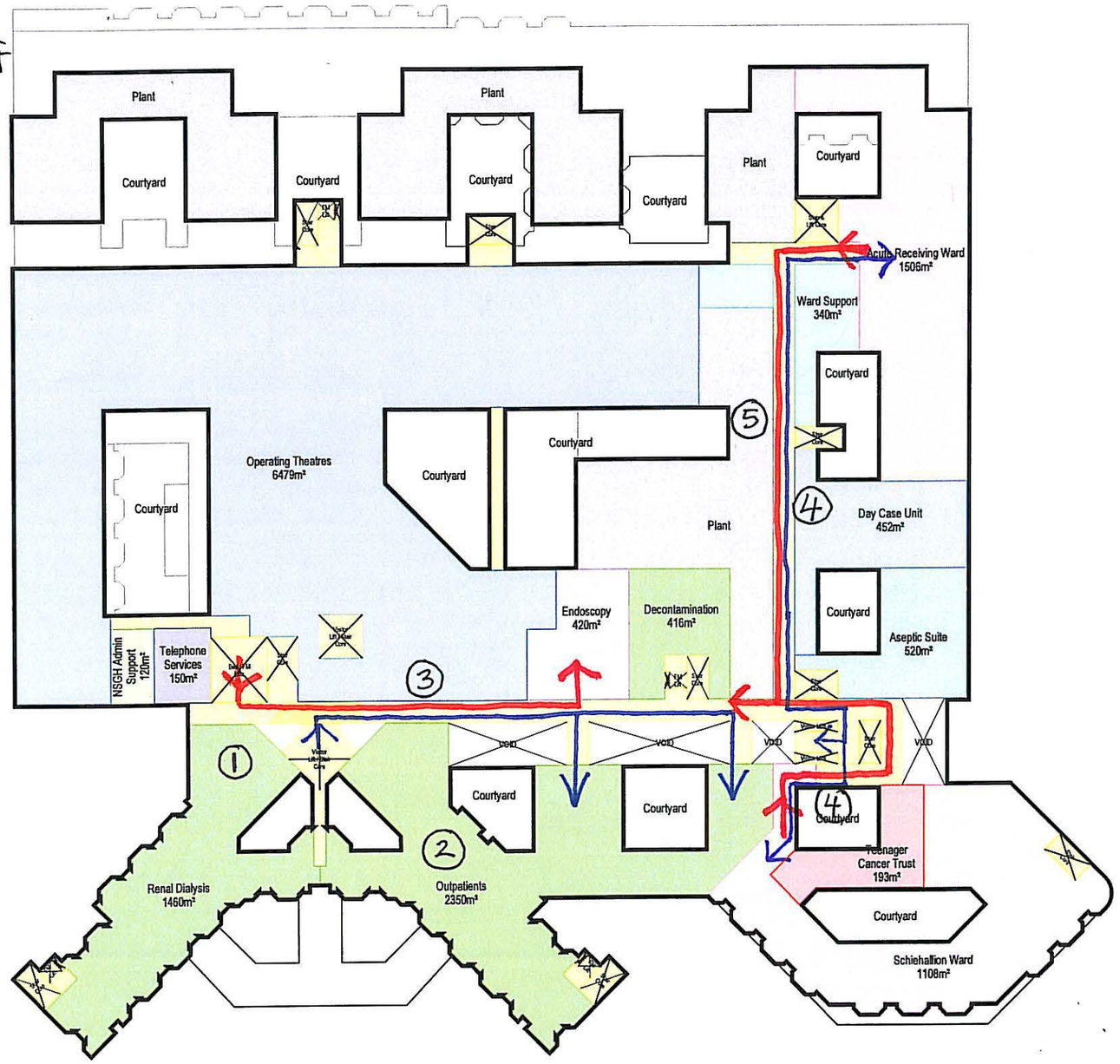
(1) NO WARDS ON SAME LEVEL AS THEATRES.

(2) OUTPATIENTS DISPERSED OVER 3 LEVELS WITH CONVOLUTED WAYFINDING.

(3) PATIENT PRIVACY & DIGNITY COMPROMISED DUE TO CROSSOVER OF OUTPATIENTS AND IN-PATIENT ROUTE TO ENDOSCOPY.

(4) CROSSOVER OF VISITOR AND INPATIENT ROUTE WITH LONG TRAVEL DISTANCES.

(5) FM LIFTS FOR NCH NOT SHOWN.



A52523997

A Day Case Unit Added 08/05/09 JD

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
DEPARTMENTAL ADJANCIES LEVEL 02

Drawing No. Revision
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Scale @ A1: 1:500
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Checked: HS

HLM ARCHITECTS

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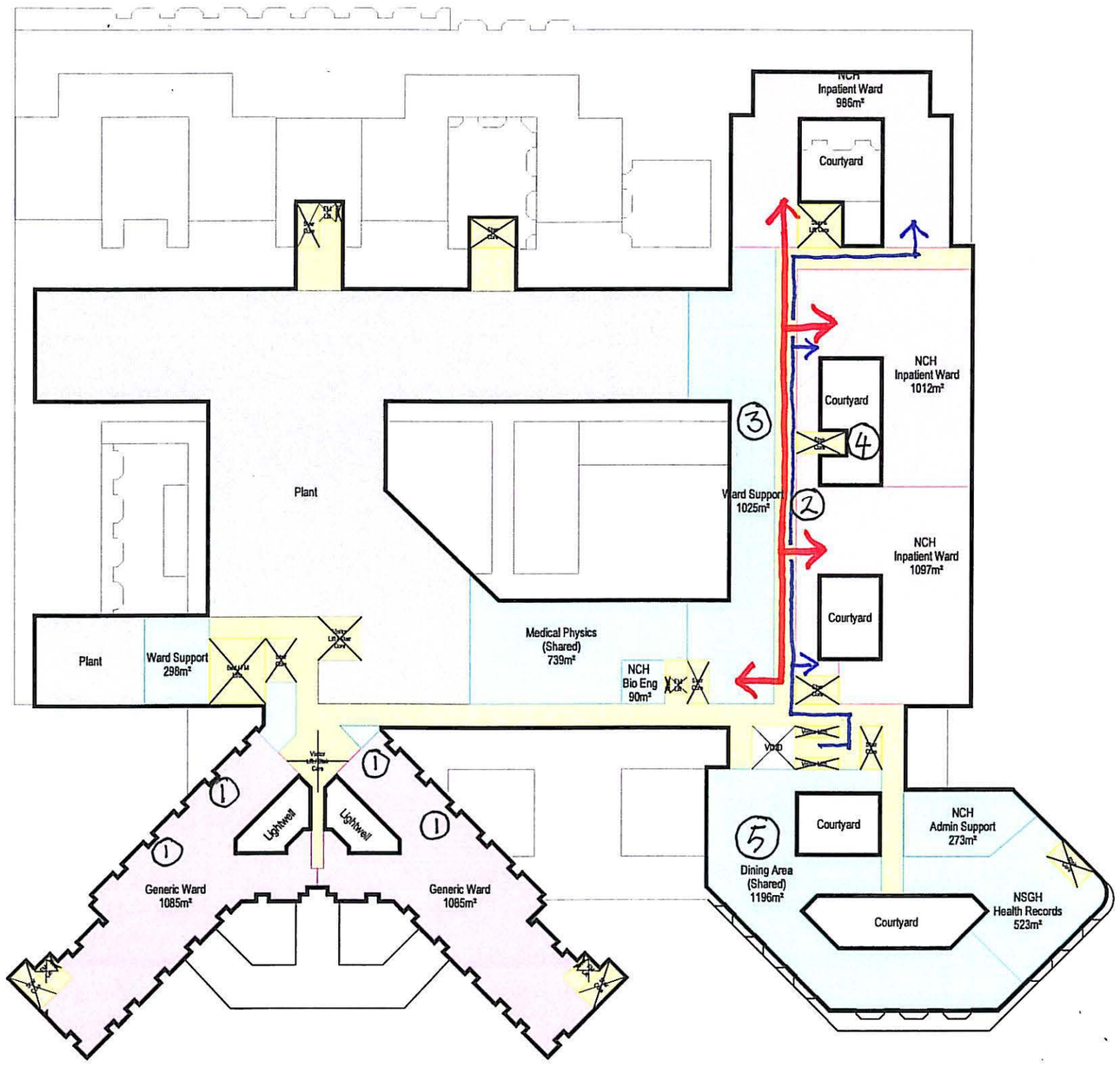
(1) POOR VIEWS FROM WARD BEDROOMS

(2) CROSSOVER OF VISITOR AND INPATIENT ROUTE WITH LONG TRAVEL DISTANCES.

(3) FM LIFTS FOR NCH NOT SHOWN.

(4) POOR VIEWS FROM NCH WARD.

(5) CONVOLUTED ROUTE FOR NSGH VISITORS AND STAFF TO ACCESS DINING AREA. FM SUPPLY TO DINING NOT EVIDENT.



Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
DEPARTMENTAL ADJANCIES LEVEL 03

Drawing No. — Revision
PD-HLM-L(00)03-X-XX-001 *

Scale @ A1: 1:500
Drawn: JCD
Date: 28/04/2009
Checked: HS

HLM ARCHITECTS

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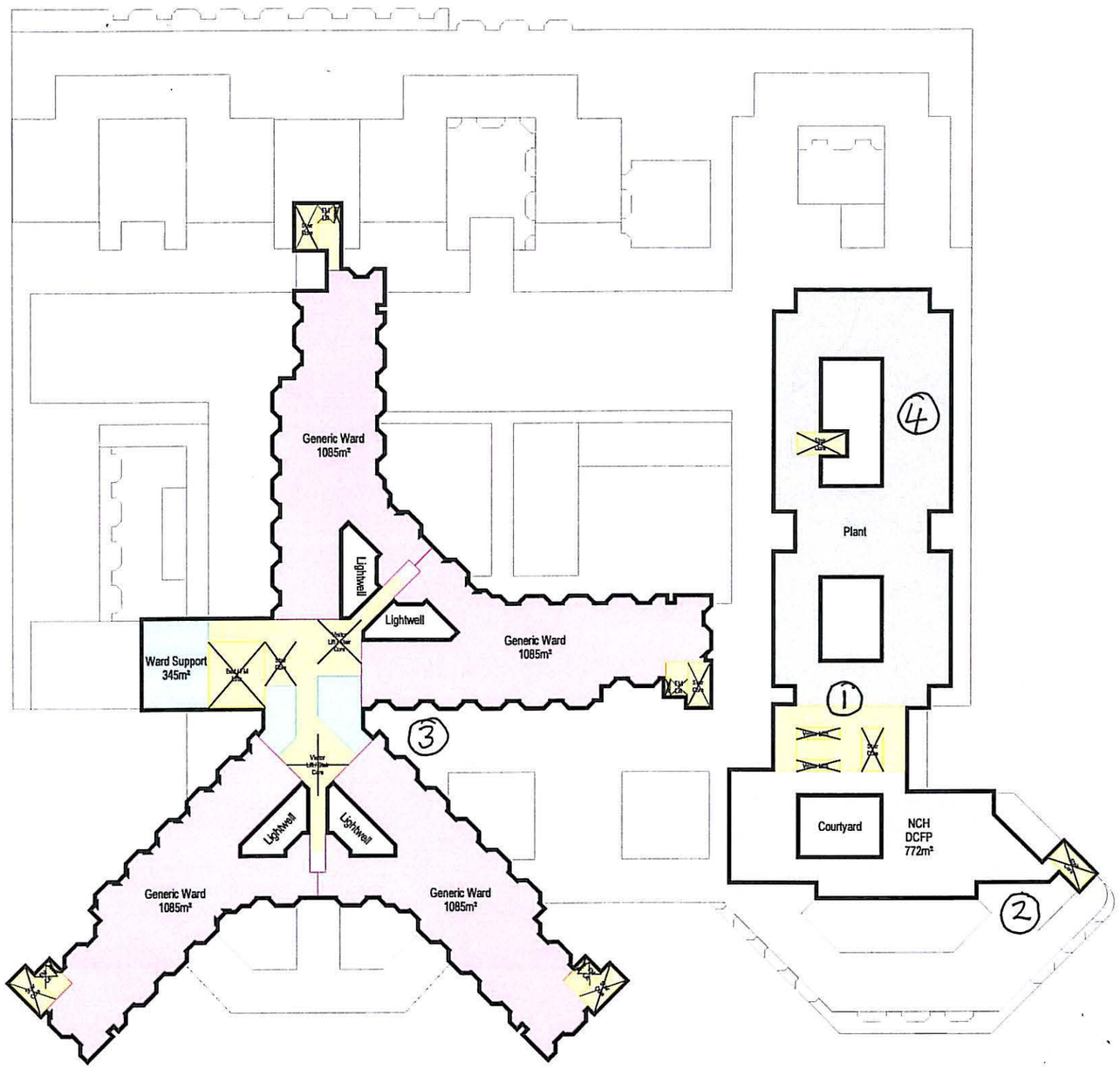
A52523997

(1) NO BED OR FM LIFT ACCESS TO DCFP.

(2) NO OUTDOOR SPACE IDENTIFIED FOR DCFP.

(3) FOR COMMENTS ON NSGH WARDS REFER TO 1:200 MARK UP.

(4) NO LIFT ACCESS FOR PLANT REPLACEMENT.



Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
DEPARTMENTAL ADJANCIES LEVEL 04

Drawing No.	Revision
PD-HLM-L(00)04-X-XX-001 *	

Scale @ A1	Drawn
1:500	JCD
Date	Checked
28/04/2009	HS

HLM ARCHITECTS

In Association with
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t: 0141 226 6320 f: 0141 226 6350

A52523997

(1) A HOSPITAL STREET NEEDS A FINAL EXIT AT ITS EXTREMITY. DEPARTMENTAL ROOMS CAN NOT OPEN DIRECTLY ONTO THE STREET AS CURRENTLY SHOWN

(2) NO DAYLIGHT OR VIEWS TO WAITING AREA AND ENTRANCES DUE TO 1ST FLOOR OVERHANG ABOVE.

(3) NO LINK TO CHILDRENS A+E.

(4) HOSPITAL STREET SPLITS THE DEPARTMENT THEREFORE MORE DOORS TO NEGOTIATE.

(5) NO DAYLIGHT TO WAITING AREA.

(6) A STAIR AND LIFT CORE IS INDICATED ON THE 1:500's AND 1:200 NCH ED LAYOUT.

(7) LIMITED DAYLIGHT TO MINORS

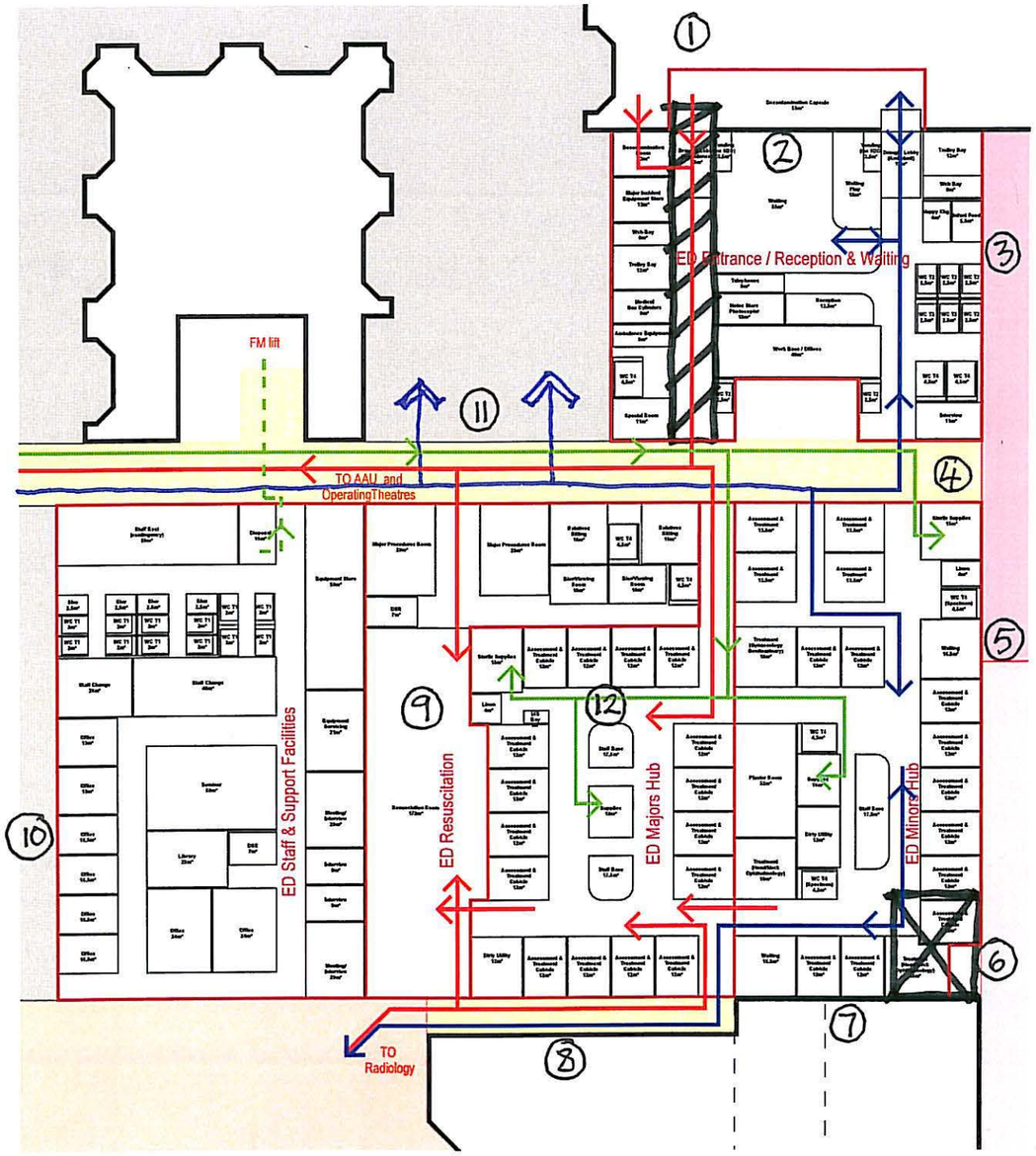
(8) CROSSOVER OF MINORS AND MAJORS FLOW TO RADIOLOGY.

(9) VERY LONG TRAVEL DISTANCE FROM HELIPAD TO RESUS/MAJORS

(10) NO DAYLIGHT OR VIENS TO STAFF AREAS.

(11) CROSSOVER OF AAU VISITORS AND OPD'S WITH PATIENT ROUTE TO AAU, THEATRES AND CRITICAL CARE.

(12) TRAVEL DISTANCE FROM MAJORS TO LIFT ACCESS FOR THEATRES
= 172M. EBCL DESIGN
= 52M.



NOTES
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Flow route Key

- Staff / Inpatients
- Outpatients
- Clean FM
- Dirty FM

Draft issue pending review by FM 08/06/09

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
EMERGENCY DEPARTMENT (ADULT) FLOW DIAGRAM

Drawing No. — Revision
PD-HLM-L(00)00-X-ED-002*

Scale @ A1: 1:200
Drawn: DM
Date: 01/06/2009
Checked: HS

HLM ARCHITECTS

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A52523997

(1) POOR VIEWS TO 15NO. BEDROOMS

(2) NO DAYLIGHT OR VIEWS TO 24NO. BEDROOMS.

(3) RESTRICTED DAYLIGHT IN 45NO. BEDROOMS DUE TO 1ST FLOOR OVERHANG AND SMALL WINDOWS.

(4) FURTHEST CLUSTER REMOTE FROM AAU ENTRANCE.

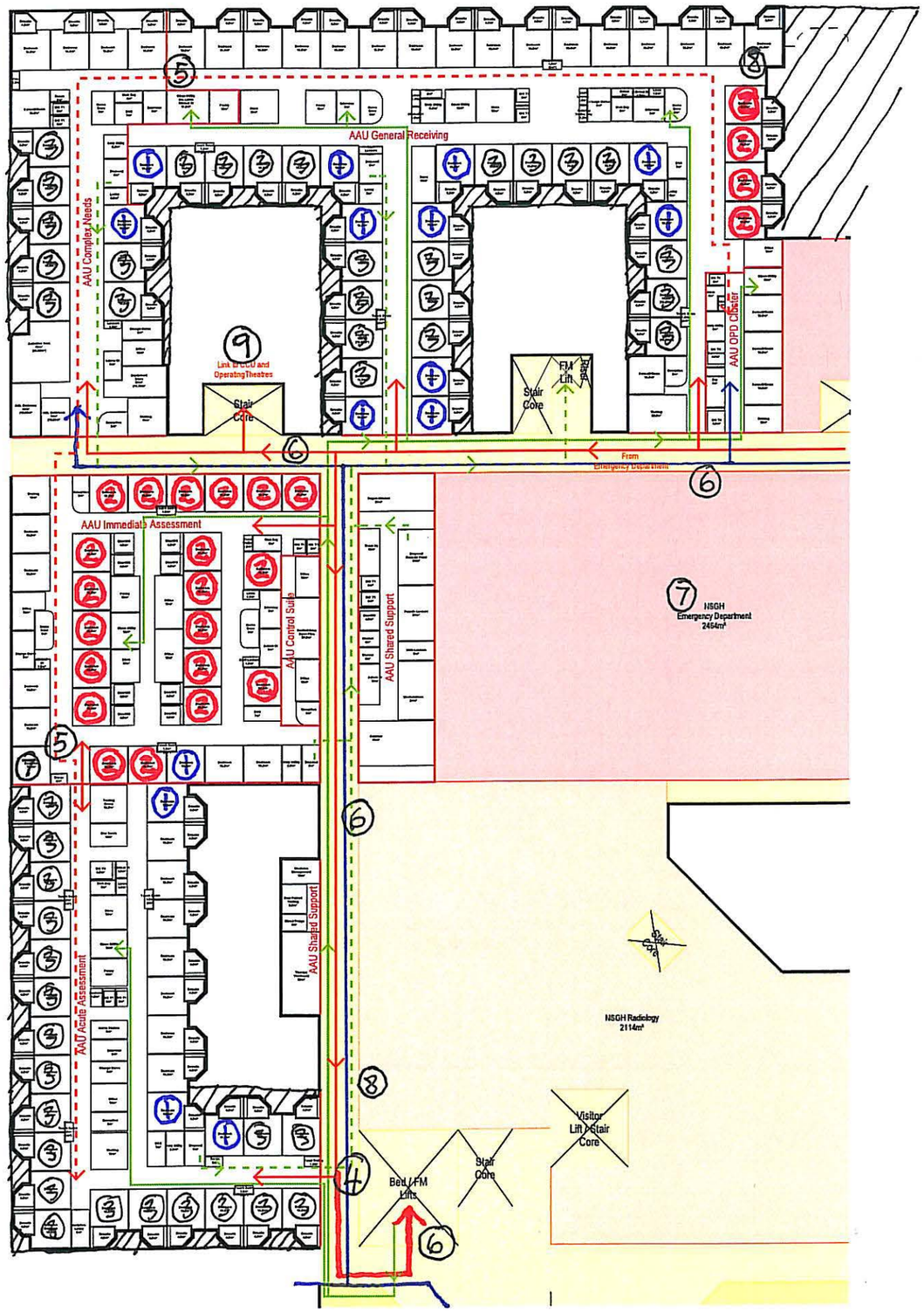
(5) LIMITED OPPORTUNITY TO FLEX BETWEEN CLUSTERS.

(6) CROSSFLOW OF VISITORS AND IN-PATIENTS.

(7) FURTHEST IMMEDIATE ASSESSMENT BED TO RESUS = 105m TRAVEL DISTANCE. BBCL DESIGN = 93M.

(8) FURTHEST AAU BED TO RADIOLOGY = 150M TRAVEL DISTANCE BBCL DESIGN = 146M.

(9) NO LIFTS INDICATED AND CORE DOES NOT APPEAR AT THEATRES LEVEL.



Flow route Key
- Staff / Inpatients
- Staff
- Outpatients
- Clean FM
- Dirty FM

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
ACUTE ASSESSMENT (ADULT) FLOW DIAGRAMME

Drawing No. PD-HLM-L(00)00-X-AA-002* Revision

Scale @ A0 1:200 Drawn DM

Date 29/05/2009 Checked HS

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(1) NO DAYLIGHT TO 20 No. BAYS. 11NO. IN ICU. RFI No. 034 CONFIRMED DAYLIGHT WAS A REQUIREMENT.

(2) OBSERVATION COMPROMISED IN 9 NO. BAYS.

(3) POOR VIEWS/DAYLIGHT IN 2 NO. ROOMS.

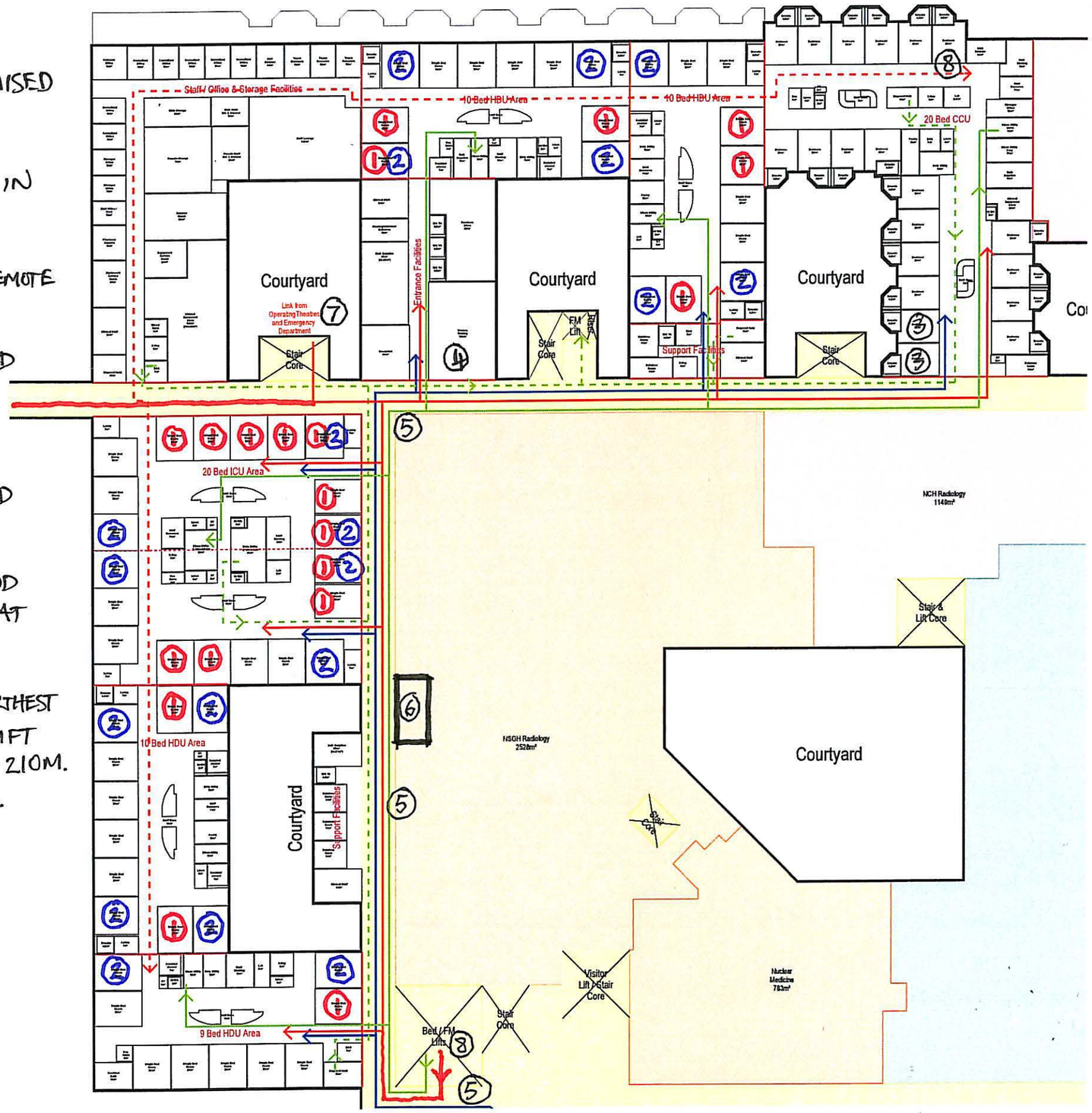
(4) ENTRANCE/RECEPTION REMOTE FROM VISITOR LIFTS.

(5) CROSSOVER OF UNSUPERVISED VISITORS WITH PATIENT FLOWS TO/FROM CRITICAL CARE AND RADIOLOGY.

(6) ADDITIONAL STAIR REQUIRED FOR ESCAPE?

(7) NO LIFTS INDICATED AND LIFTS DO NOT APPEAR AT THEATRES LEVEL.

(8) TRAVEL DISTANCE FROM FURTHEST CRITICAL CARE BED TO LIFT ACCESS FOR THEATRES = 210M. BBCL DESIGN = 155M.



Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
CRITICAL CARE UNIT (ADULT) FLOW DIAGRAM

Drawing No. PD-HLM-L(00)01-X-CC-002* Revision

Scale @ A0 1:200 Drawn DM

Date 01/06/2009 Checked HS

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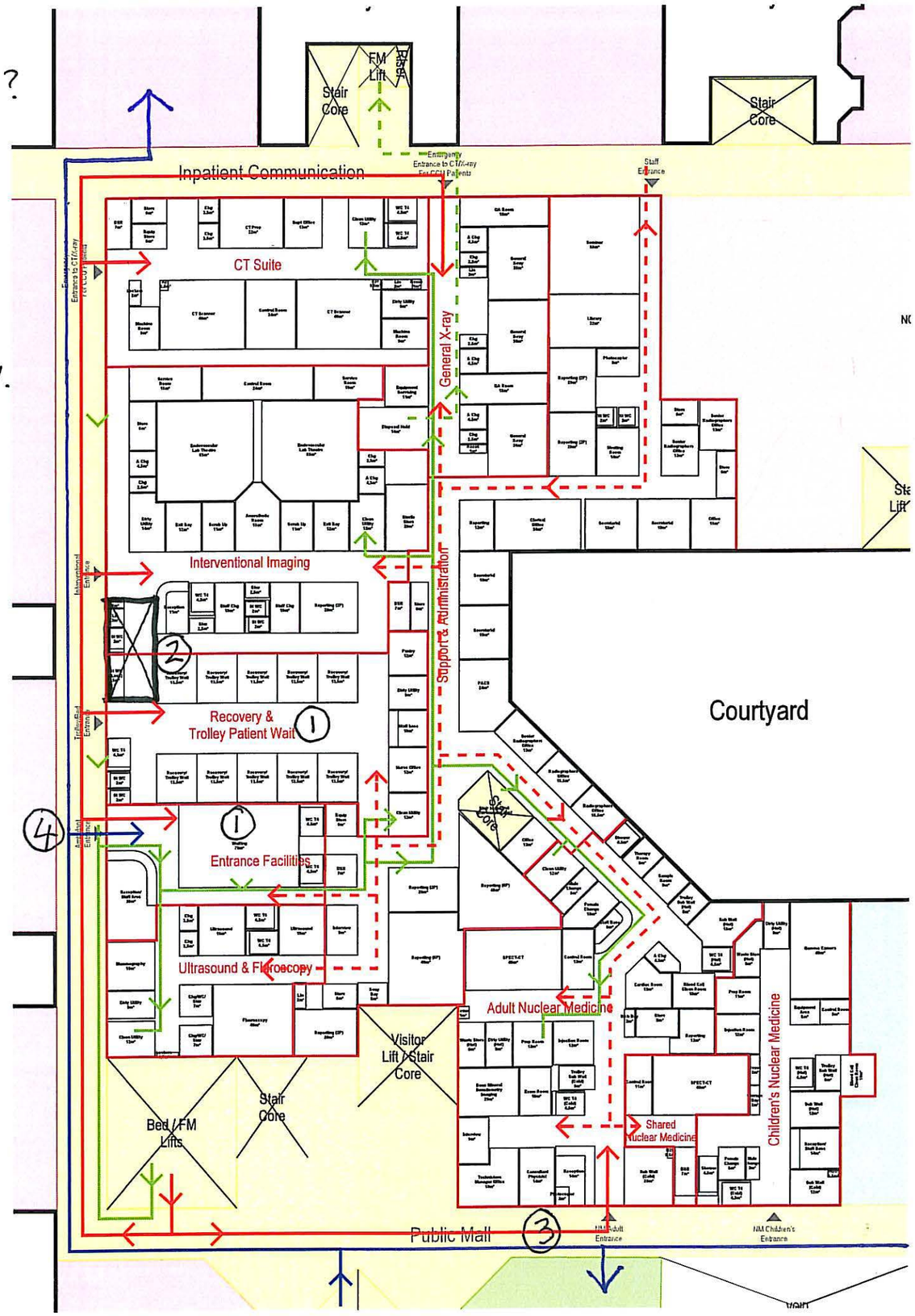
A52523997

(1) NO DAYLIGHT TO WAITING AND RECOVERY AREAS

(2) STAIR REQUIRED FOR ESCAPE?

(3) CROSSOVER OF OUTPATIENTS AND INPATIENT ROUTE TO NUCLEAR MEDICINE.

(4) CROSSOVER OF UNSUPERVISED CRITICAL CARE VISITORS AND INPATIENT ROUTE TO RADIOLOGY.



NOTES
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- Staff / Patients
- Staff
- Outpatients
- Clean FM
- Dirty FM

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
RADIOLOGY DEPARTMENT (ADULT) FLOW DIAGRAM

Drawing No.	Revision
PD-HLM-L(00)01-X-RA-002*	

Scale @ A1	Drawn
1:200	DM
Date	**Checked**
01/06/2009	*

HLM ARCHITECTS

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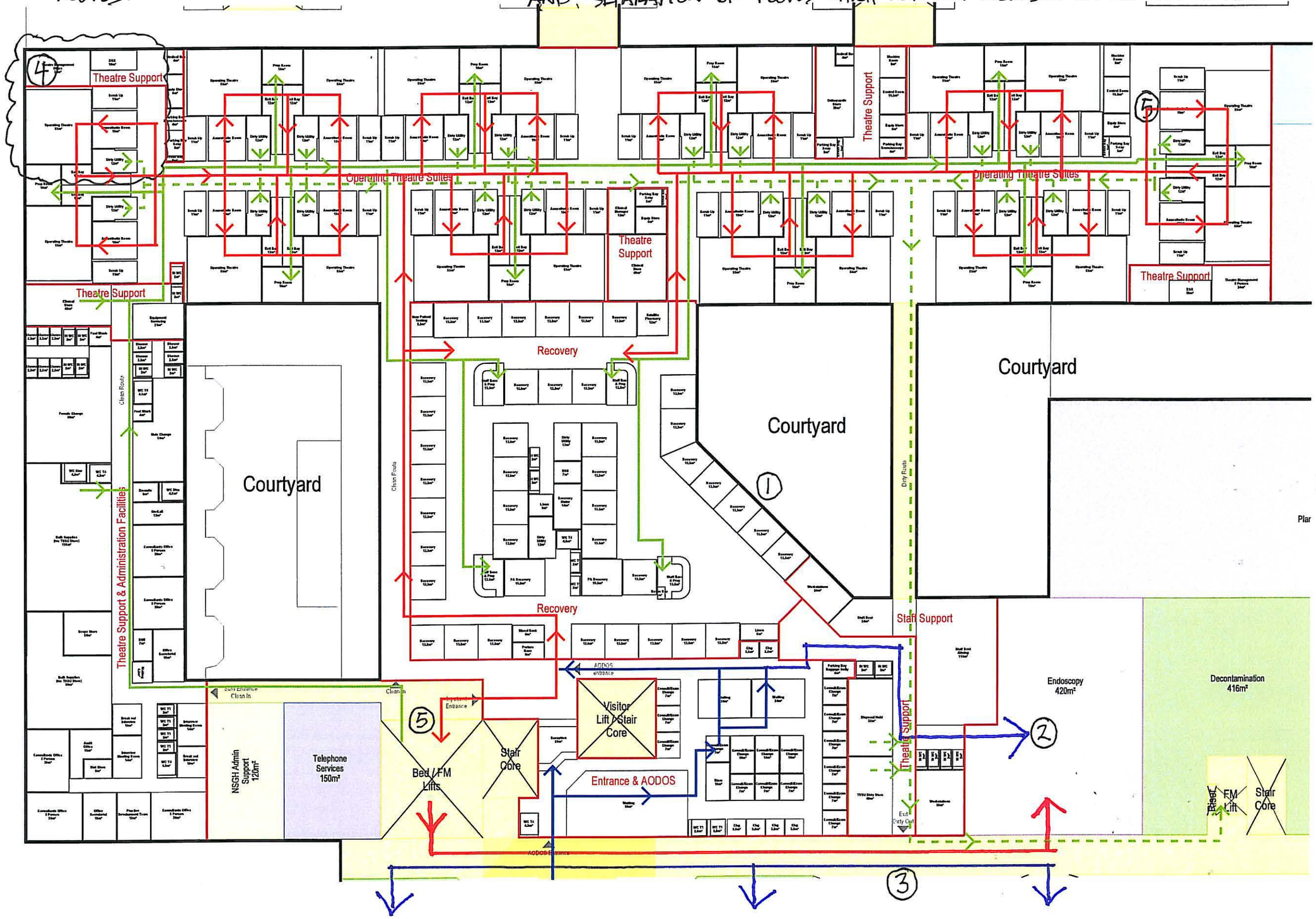
(1) LIMITED DAYLIGHT TO RECOVERY.

(2) SUB OPTIMAL ROUTE TO ENDOSCOPY PAST STAFF/SUPPORT AREAS.

(3) CROSSOVER OF INPATIENT AND OUTPATIENT ROUTES.

(4) ESCAPE AND FIREFIGHTING TO THIS AREA IS AN ISSUE.

(5) HORIZONTAL TRAVEL DISTANCE FROM FURTHEST WARD BEDROOM TO THE FURTHEST THEATRE = 284M. BBCL DESIGN = 306M. ALTHOUGH MARGINALLY MORE THE BBCL DESIGN INCORPORATES STRUCTURE, SERVICES, INTERLOCKING EN-SUITES AND SEPARATION OF FLOWS WHICH ARE NOT INCLUDED ON THE EXEMPLAR.



Flow route Key

- Staff / Patients
- AODOS
- Clean FM
- Dirty FM

Draft issue pending review by FM 08/06/09

A	Outpatients key changed to AODOS	04/06/09 dm

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
OPERATING THEATRES (ADULT) FLOW DIAGRAM

Drawing No. **PD-HLM-L(00)02-X-OT-002 A**

Revision

Scale @ A1: 1:200

Drawn: DM

Date: 01/06/2009

Checked: HS

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(1) UNITED DAYLIGHT AND VIEWS FROM NARROW WINDOWS

(2) POOR VIEWS FROM THESE BEDROOMS ON ALL LEVELS.

(3) NO DISTANT VIEWS TO THESE BEDROOMS ON ALL LEVELS.

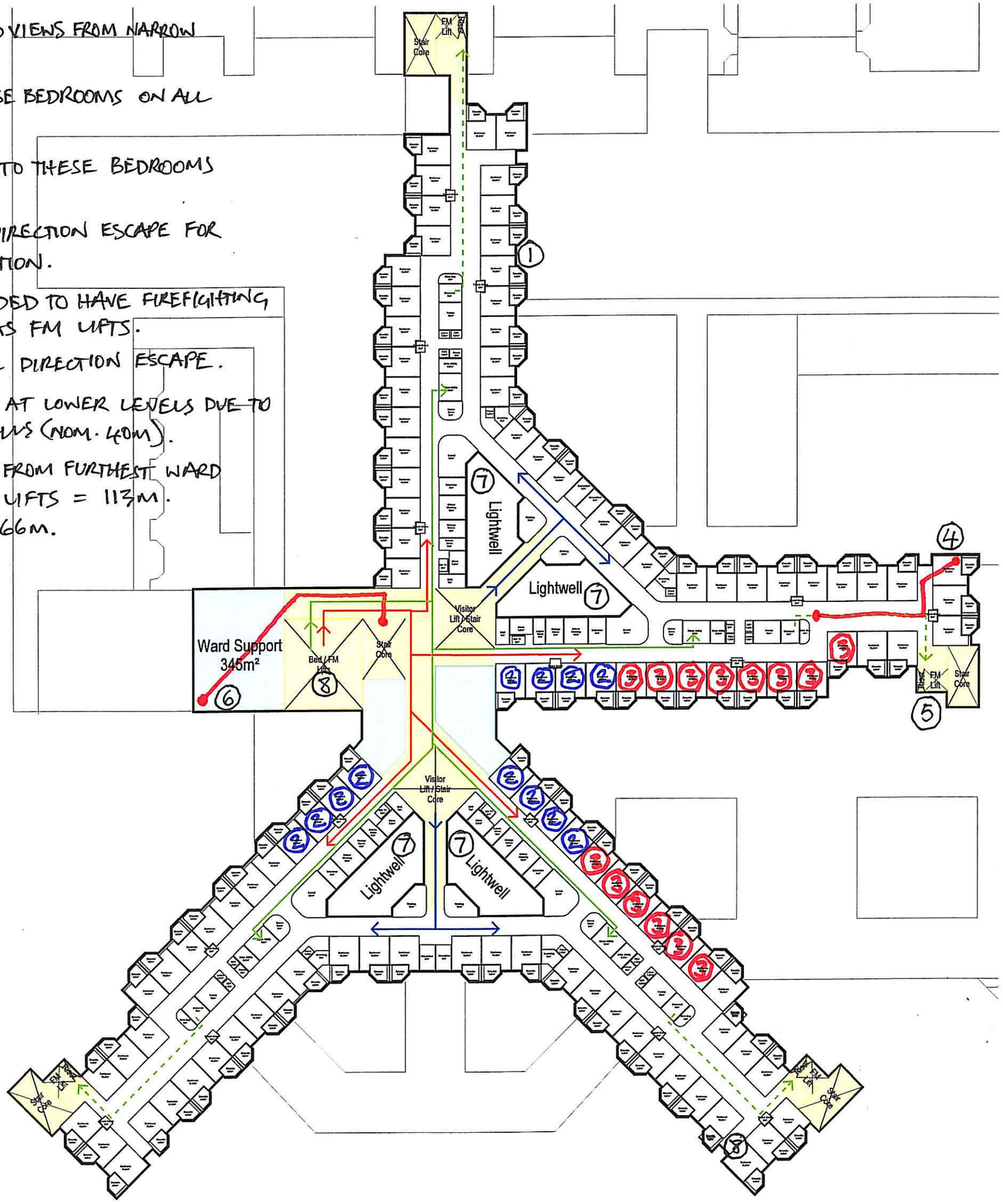
(4) EXTENDED SINGLE DIRECTION ESCAPE FOR HORIZONTAL EVACUATION.

(5) IT IS NOT RECOMMENDED TO HAVE FIREFIGHTING LIFTS BEING USED AS FM LIFTS.

(6) EXTENDED SINGLE DIRECTION ESCAPE.

(7) POOR DAYLIGHTING AT LOWER LEVELS DUE TO DEPTH OF LIGHTWELLS (NOM. 40M).

(8) TRAVEL DISTANCE FROM FURTHEST WARD BEDROOM TO BED LIFTS = 113M.
BBCL DESIGN = 66M.



Flow route Key
- Staff / Inpatients
- Visitors
- Clean FM
- Dirty FM

Draft issue pending review by FM 08/06/09

Revisions

Project
NEW SOUTH GLASGOW HOSPITAL

Client
NHS GREATER GLASGOW AND CLYDE

Title
GENERIC WARD (ADULT) FLOW DIAGRAM

Drawing No. — Revision
PD-HLM-L(00)04-X-WA-002

Scale @ A0: 1:200 — Drawn: DM
Date: 01/06/2009 — Checked: *

HLM ARCHITECTS

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(1) NO DAYLIGHT OR VIEWS FROM WAITING AREA AND ENTRANCES DUE TO 1ST FLOOR OVERHANG ABOVE.

(2) NO LINK TO ADULT A+E.

(3) NO LINK TO HELI-PAD.

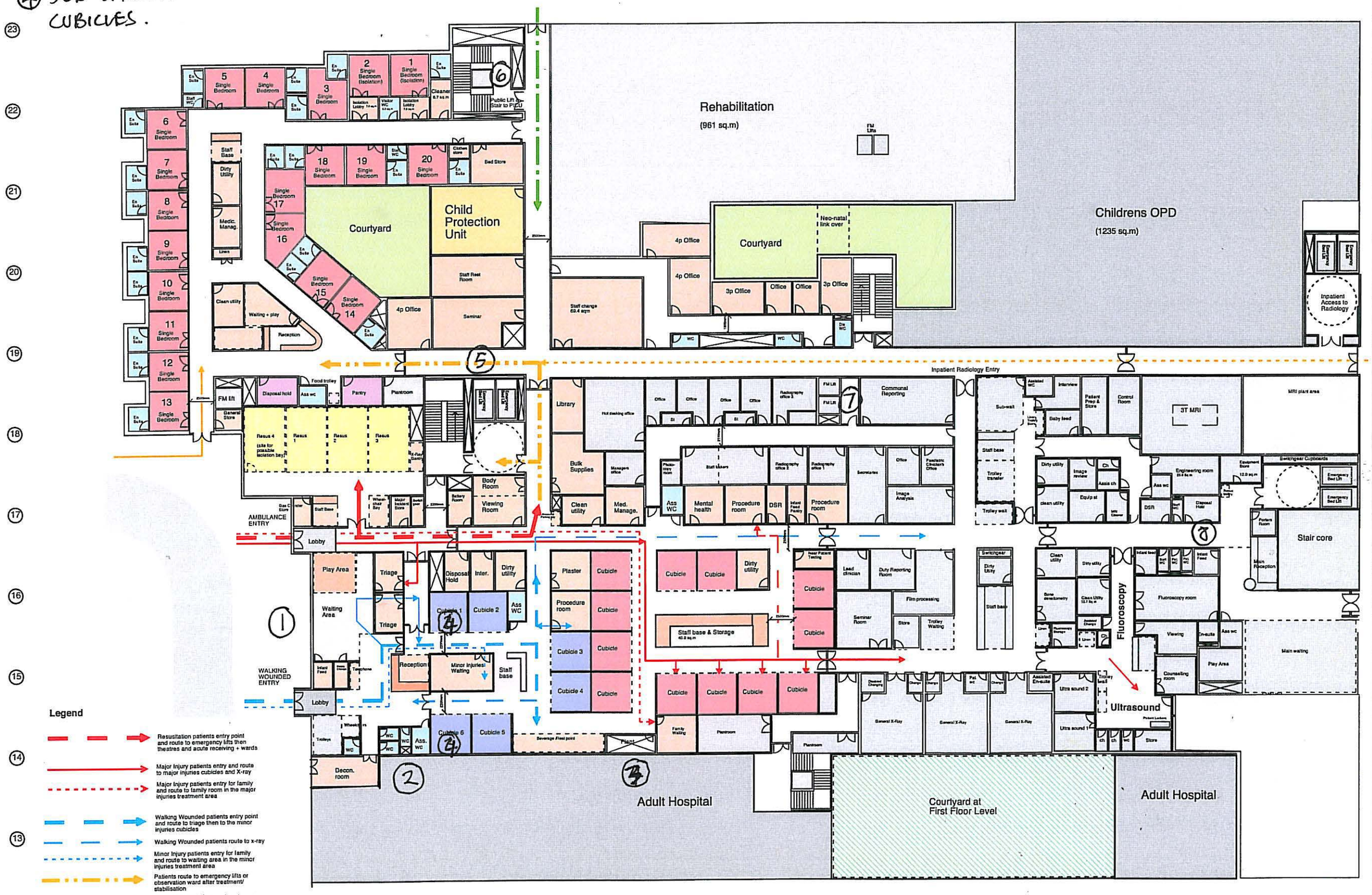
(4) SUB-OPTIMAL OBSERVATION OF MINORS CUBICLES.

(5) SUB-OPTIMAL LINK TO OBSERVATION.

(6) LONG VISITOR ROUTE TO PICU.

(7) CROSSOVER OF FM ROUTES.

(8) DISPOSAL HOLD LOCATED ON MAIN OUTPATIENT ROUTE.



A52523997

	Revision	Date
A	Drawing tabled and changes made to suit user requirements. Central staff bases requested as opposed to end of row at outskirts. Focus to swap with Majors to be beside EMC + bays in a line if possible. Schedule of areas revised accordingly.	12.02.09
B	Revised drawing tabled and changes made to suit requirements from last meeting Baby and viewing room to functions as sibling room for parents but to be capable of separation. Near Patient Testing and Medicines Management to be closer to Majors. Route from Resus to EMC ward critical. Visits of relatives to the EMC ward to be taken into account.	02.03.09
C	EMC Ward redrawn to suit FM requirements re ambulance access and to allow for courtyard daylighting to single bedrooms. Stair Hall was added from Radiology to CT/MRI now shown. Storage to now re-configured to suit changes. Resus suites changed to a linear arrangement instead of a cluster to suit entry requirements. Gowning area in Resus no longer required. A&E extended one bay out at walking wounded and ambulance entry sides to match the Adults A&E. Radiology now comes closer as a result. Majors re-designed to suit with a bigger staff base and associated storage. Dirty Utility exception to intervene in Minors. Near Patient Testing moved closer to Dirty Utility in Majors. Offices reconfigured to suit changes to ward. Reception altered to face the "walking wounded" entrance. Public stair and lift added on Resus/Maternity side.	06.04.09
D	Drawing modified to suit final user comments. Doors to the Body Room and both Dirty Utilities modified. Near patient Testing now swapped with DSR. Doors to Triage rooms modified. Offices + Seminar and Staff base to courtyard modified to suit design development. Fast Track access to ED improved slightly. Child Protection Unit added close to EMC ward.	06.04.09
E	Grid and courtyard modified. Drawing title re-named as a location drawing (AA) to (AL)	20.04.09
F	Radiology MRI suite replanned and shown on drawing.	15.05.09
G	Emergency lift and stair core moved to reflect changes to generic ward floor plan. Resus and rest of the Observation ward replanned accordingly. Family room added to majors as per the revised schedule issued beginning of May. Beverage bay now shown as per revised May schedule. Office suite to courtyard re-planned to take account of link to neo-natal overhead and also reduced size of courtyard.	17.05.09
H	FM Lift added and gas cylinder store relocated.	21.05.09
I	Childrens OPD and Rehab defined and areas added.	21.05.09
J	Bedrooms adjusted to suit courtyard of ward layout above. Areas removed and plant space added.	25.05.09
K	Sibilings play area denoted in observation ward to an extra extra cubicle. Disposal hold moved to space made available. Rehab modified to incorporate meeting in person office.	26.05.09

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CHILDRENS HOSPITAL
Flow diagram for Emergency Department Layout Incorporating EMC Ward and A&E

Scale	1:200	Job No	Dwg No	Rev
Date	14/04/09	2447	AL(00)22	K
Drawn	SR			
Checked	BM	© COPYRIGHT	This drawing is the copyright of Boswell Mitchell & Johnston Ltd.	

(1) INPATIENT ROUTE TO RADIOLOGY AND NUCLEAR MEDICINE IS VIA THEATRES.

(2) NO VISITOR LIFTS TO ACCESS CARDIOLOGY WARD.

(3) DIFFICULT MRI REPLACEMENT.

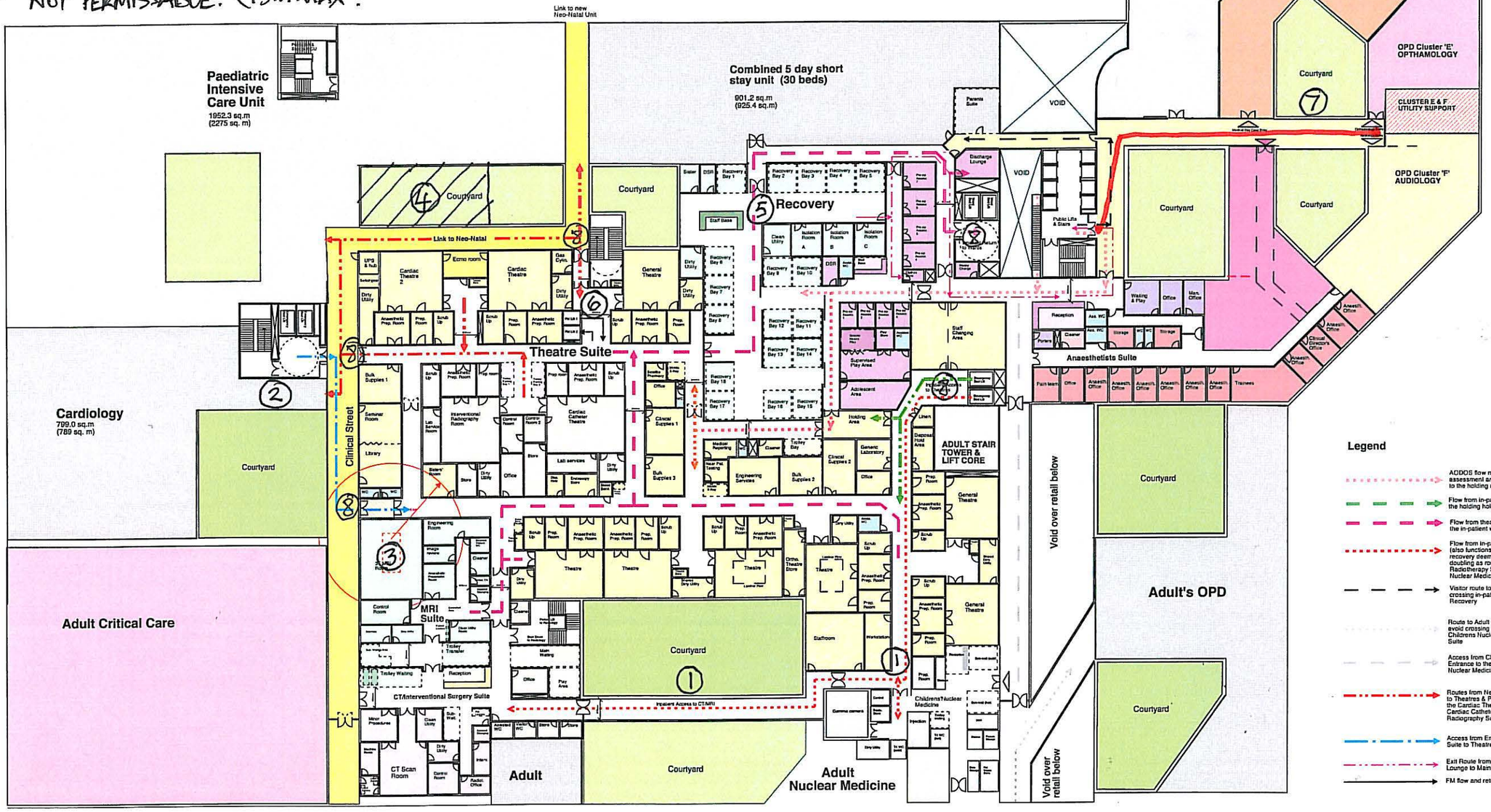
(4) NO DAYLIGHT DUE TO FLOOR ABOVE.

(5) NO DAYLIGHT TO RECOVERY

(6) NO SEPARATION OF FM FLOWS.

(7) 50M SINGLE DIRECTION ESCAPE IN A HOSPITAL STREET NOT PERMISSABLE. (15M MAX.

(8) MULTIPLE IN-PATIENT ENTRY/EXIT POINTS TO THEATRES.



		Date
A	Layout amended to suit first user comments; CT/MRI swapped with Recovery.	
B	Layout amended to revised schedule of accommodation. No of theatres increased from 7 to 9	
C	Layout amended to revised schedule of accommodation. 23 hour unit now cobined with day surgery. Recovery re-located.	
D	Re-locate FM lifts FM lifts added	
E		
F		
G H I J K L M		
N	Changes made as per user meeting on 25th May. Recovery re-planned with a direct attachment to 23 hour ward, two theatres switched down to Children's Nuclear Medicine; central stores area re-planned accordingly;	30.05.09
O	Changes made as per user meeting on 3rd June. Orthopaedics Store added, one theatre rotated at staffroom and the area around re-planned accordingly; seminar and library moved and area reduced; area added to staff changing; laminar flows shown and also gauze line for MRI room; MRI flipped with CT Scan area as requested by Radiologists; MRI suite re-planned accordingly; areas of rooms reduced to match area schedule more closely.	11.06.09
P	FM lifts added and minor re-planning to accommodate changes; Anaesthetists department rationalised; flows/patient pathways added as instructed.	11.06.09

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Flow diagram for Childrens' Theatres & CT/MRI Suite

Scale	1:200	Job No	Dwg No	Rev
Date	22/04/09	2447	AL(00)20	P
Drawn	SR			
Checked	BM	© COPYRIGHT		

A52523997

NSGH – Contract Preparation Design Summary – [area]						
Item	**Add**	**Omit**	**Board Comment**	**Status**	**Brookfield Comment**	
ER 2/1						
Text	-	-	Volume 2/1 of the ERs remains as the output requirements of the Board to be achieved as a minimum standard by the Contractor. Including M&E appendices 1, 2, 3, 4, 5, 6 & 7.	**Not Agreed**	Needs to be replaced by Brookfield contractor's proposal drawings in so far as these drawings are in conflict to the ER`s or the Works Information 2 should take precedence over Works Information 1 if this is ultimately how the Board wish to encompass the final contract documents. A schedule of derogations is to be produced.	Impasse being reviewed.
Drawings	-	-	The ER drawings remain as the output requirements of the Board. The submitted bid drawings of BC supplement the ER drawings and the following system comments are provided to assist in resolving certain anomalies within BC proposals.	**Not Agreed**	Needs to be replaced by Brookfield contractor's proposal drawings in so far as these drawings are in conflict to the ER`s or the Works Information 2 should take precedence over Works Information 1 if this is ultimately how the Board wish to encompass the final contract documents. A schedule of derogations is to be produced.	Impasse being reviewed.
Bid Submission – Vol 2 Drawings						
Chilled Water	- -	- -	The chillers to incorporate free cooling coil sections or equivalent provision.	**Not Agreed**	We have centralised the chillers to a single energy centre to optimise resilience and benefit from absorption cooling. Free cooling' chillers are not appropriate, however, high efficiency 'turbo core' chillers	Some form of free cooling is a prerequisite of low energy. Cooling and must be provided in line with the ER's refer to M&E3 para 2.4.5

	-	-			using magnetic free field bearings are proposed to maximise energy efficiency	
	-	-	Plate heat exchangers to be fully independent duty/standby including wiring and control panels etc.	**Agreed**		
			Chillers to have screw compressors, "Rated as residentially quiet".	**Not Agreed**	Chillers will use oil free 'turbo core' compressors (magnetic free field bearings) Noise levels will be within site boundary constraints.	Screw compressors are noted in the ER's. Is the bidder putting forward a specific manufacturer?
	-	-				
			Chillers to have variable speed head pressure control with load and efficiency optimized head pressure and chilled water flow temperature control to improve seasonal efficiency will be incorporated.	**Not Agreed**	Typically one manufacturer of Turbo core chillers offers a product that "utilizes EC fan technology" coupled with floating head pressure to enhance part load chiller efficiency. The PLC control system integrates fan speed, head pressure and compressor control to optimize chiller efficiency during periods of low ambient temperature and reduced cooling load." Chillers selected already have high Co-efficient of Performance	Reference to boundary condition stands, however Chillers must be rated as residentially quiet as detailed in the ER's due to proximity of the Board's estate.
	-	-				
			Full system details and drawings to be provided for specialist areas (Plant required to ensure max feed water temp of 5 to 12 deg C to specialist areas noted in correspondence during CD)	**Not Agreed**	Brookfield is currently unclear as what this refers to. System configurations and operating temperatures will be applicable to the application.	Refer to Email chain 8/6/09 attached below which was issued to the bidders via the process.
			Reduction in Chiller Plant resilience where (N+1) N=8 is not agreed, provision of additional unit together with associated	**Not Agreed**	N+1 resilience is provided and includes the absorption unit. All as identified within Brookfield	

			distribution pipework and controls required to comply with ER's.		Contractors Proposal Volume 3 Cooling Design Strategy 3.33.	Not accepted, with one chiller out for maintenance any system failure would have a detrimental effect on operation
Ventilation	-	-	Typical Isolation Room Supply. All air system heater battery +5°C to 21°C – supply temperature will require to be higher for provision of room heating.	**Agreed**		
	-	-	Pressure stabiliser to be located in the wall above the bedroom door to the lobby. Currently indicated within ductwork in the ceiling void, no access in this location due to ceiling construction.	**Agreed**	A review will be undertaken so that jetting draughts through Pressure Stabiliser does not cause discomfort to bedded patient.	
	-	-	Conventional Theatre Supply System Schematic. Air on temp to cooling coil to be +30°C ER's, not 28°C as shown on BE drawing (Also main heater battery within AHU to be rated at +6°C to 35°C).	**Agreed**		
	-	-	Typical Ultra Clean Theatre Supply air on temp to cooling coil to be +30°C ER's, not 28°C as shown on BE Drawing (Also main heater battery to be rated at +6°C to 35°C).	**Agreed**		
	-	-	Typical Isolation Room Extract Schematic. All air system heater battery +5°C to 21°C – Supply temperature will require to be higher for provision of room heating.	**Agreed**		
	-	-	Typical Conventional Theatre Extract System Schematic Air on temp to cooling coil to be +30°C ER's, not 28°C as shown on BE drawing (Also main heater battery within AHU to be rated at +6°C to 35°C).	**Agreed**		

	-	-	Typical Ultra Clean Theatre Extract System Schematic Air on temp to cooling coil to be +30°C ER's, not 28°C as shown on BE drawing (Also main heater battery within AHU to be rated at +6°C to 35°C).	**Agreed**		
	-	-	Ward Air change to be 6AC/HR, currently shown as 2.5AC/HR which is not in compliance with SHTM 03-01.	**Not Agreed**	Brookfield proposal as outlined within the bid submission is to incorporate chilled beams as a low energy solution to control the environment which do not rely on large volumes of treated air or variable natural ventilation. All accommodation is single bedrooms and therefore the need for dilution of airborne microbiological contamination should be reduced (rooms could also be at slightly negative pressure to corridor). Providing 6 air changes is energy intensive and not necessary.	This derogation to the SHTM is not accepted. Any variation would require Board clinical infection control review.
Hot & Cold Water Services	-	-	Renal Water Schematic to be reviewed by SGH Renal Water Advisory Group and comments incorporated within the scheme.	**Agreed**		
	-	-	Renal Acid Circulation Schematic to be reviewed by SGH Renal Water Advisory Group	**Agreed**		
	-	-	Renal Water System response to Volume 2/1 , Appendix M&E 6 Renal Water is to be completed and approved by NSGH Renal Water Advisory Group	**Agreed**		
	-	-	Concentrate Bulk Delivery to site Strategy is to be completed and approved by NSGH Renal Water Advisory Group	**Agreed**		

			Stainless Steel pipework to be provided as per ER's in lieu of ABS plastic for the larger sizes.	**Agreed**	63mm dia and above will use Stainless Steel pipe. 50mm dia below will use ABS plastic pipe.	Not agreed Stainless Steel pipework to be provided for all sizes.
	-	-	24 Hour water storage to be provided in lieu of 12 hours as proposed and modularity of tanks to be as per the ER's. (if we change to 12 hours, change to 4 tanks)	**Agreed**	However this requires further discussion since the project has two diverse incoming water supplies and thus Brookfield consider our proposal to be the most economic solution.	Is 24 hour storage Proposed?
Heating Systems	-	-	3 no. off flow pipes to be provided between the Energy Centre and the Hospitals capable of passing 50% flow through each, where one fails and the other two can carry the total load. Current proposal is to reduce to 2 no. off pipes each capable of carrying 66% should one fail.	**Not Agreed**	Brookfield proposal is based on capacity for each A and B service rated at 66% each.	Not agreed, any work on pipework in Winter would provide reduced service which is not acceptable to the Board
	-	-	Plate heat exchangers to be fully independent duty/standby including wiring and control panels etc.	**Agreed**		
Medical Gases	-	-	Medical gas schematic to be amended to reflect ER requirements together with the BC plant room services layout drawing and design dialogue.	**Agreed**	Medical gas schematic is in compliance with SHTM02.01	Confirm ER Compliance
	-	-	All references to BOC should be Air Products Ltd.	**Agreed**		
	-	-	Details of the plant resilience for Medical Air, Oxygen, Vacuum, Surgical Air, Nitrous Oxide and Nitrous Oxide to be in accordance with the ER's.	**Agreed**	Medical gas is in compliance with SHTM02.01	Confirm ER Compliance
Wet Riser Schematic	-	-	Water storage tank capacity to be with local authority.	**Agreed**		
	-	-	BC drawings to be developed.	**Agreed**	Part of stage 2 design activities.	

Sprinkler Schematic	-	-	Note on BC drawing states ‘ Tank by Others ‘ to be clarified as included.	**Agreed**		
	-	-	Note on BC drawing states ‘ Others to include tank immersion heater, trace heating, lighting etc. to be clarified as included.	**Agreed**		
	-	-	Note on BC drawing states Pump House by others to be clarified as included.	**Agreed**		
Energy Centre	-	-	Man access to be provided to the chimney stack to allow full access to flues over its total height as ER’s.	**Agreed**		Safety access appears more difficult for an open structure.
	-	-	Chimney stack enclosure to be provided.	**Not Agreed**	Brookfield proposal includes an open frame structure	ER’s call for a common chimney stack refer M&E3 para 2.2.10
			Boiler layout to be configured to simplify flue routes.	**Agreed**	Part of Stage 2 detailed design activities if practical.	Is reduced proposal acceptable to the Board and Planners from an aesthetic point of view?
	-	-	External oil transfer point to be provided on the wall of the Energy Centre to serve the retained estate.	**Agreed**		
	-	-	Minimum requirement is accessible diverse twin trench solution to be provided in accordance with the ER’s to provide required resilience. Pipe material selection will be critical	**Agreed**	Part of Stage 2 detailed design activities if practical	Is diverse twin trench proposed?
Plant Replacement Strategy	-	-	Scaffold platform to be capable of supporting the plant weights of the larger items of equipment or other strategy adopted to minimise plant replacement time.	**Agreed**	Part of Stage 2 detailed design activities	
	-	-	Ground finishes to be capable of taking the scaffolding weight with plant added adjacent to plantrooms.	**Agreed**	Part of Stage 2 detailed design activities	

UPS	-	-	UPS autonomy to be amended in line with the ER's.	**Not Agreed**	Superseded by agreed RFI log.	Refer to the Boards separate comments
Lighting	-	-	Lighting control to be amended inline with ER's.	**Not Agreed**	Superseded by agreed RFI log. Refer to contractors proposal.	Refer to the Boards separate comments
	-	-	Full luminaire details to be provided including LED's and feature lighting.	**Agreed**		
	-	-	Bedside lights to be low energy type.	**Agreed**		
	-	-	Feature lighting LED's to be provided inline with the ER's.	**Agreed**		
	-	-	BE lighting design strategy to be applied to the Internal Lighting scheme which shall be developed in line ER's to provide full CIBSE compliance.	**Agreed**		
	-	-	Lamp colour strategy to be developed in line with HSE & CIBSE guidance	**Agreed**		
	-	-	External Lighting scheme to be developed in line ER's with full CIBSE compliance.	**Agreed**		
Comms Room Racks	-	-	Reduction in racks is not agreed, ie. 10 indicated by BE in each main Comms Room to be amended inline with the ER's drawing.	**Agreed**	Rack number will be as the ER's	Number of racks to be as ER drawing
	-	-	Comms room cooling strategy to be detailed to minimise energy use.	**Agreed**	Part of Stage 2 detailed design activities.	
Fire Alarm	-	-	Graphic user interface system details to be provided during detailed design	**Agreed**	Part of Stage 2 detailed design activities.	
	-	-	BE to provide full details of the proposed voice alarm system and indicate areas to be covered by conventional sounders	**Agreed**	Part of Stage 2 detailed design activities.	

	- - -	- - -	Atrium protection system details to be provided Comms room VESDA system details to be provided	**Not Agreed** **Agreed**	Brookfield confirm that a Double knock fire detection only will be provided. Atrium is provided with ETFE roof covering which includes a hot wire system and therefore no other protection systems should be required. Part of Stage 2 detailed design activities	Confirm all systems will be provided to meet the building control and fire engineering solution.
Structured Data Wiring	-	-	Comms room and rack layouts to be provided for early discussion with GG&C Technology to verify equipment space allocation.	**Agreed**	Part of Stage 2 detailed design activities	
Metering	-	-	All metering to be provided in accordance with ER's to allow active energy management together with associated BREEAM credits.	**Agreed**	Metering has been included to CIBSE TM39 with provision for fitting future metering to individual department as required (i.e. stool sections in pipe and a BMS connection point).	This appears to be a new derogation to the ER's and should not be accepted
Energy Management	-	-	Energy Management software to be fully compliant with ER's complete with BMS management and interactive link to GG&C system	**Agreed**	Part of Stage 2 detailed design activities	
Standby Power	-	-	BE to provide early proposals for system management, CHP and Utility Company interface details to progress agreement of all parties	**Agreed**		
Bio fuels	-	-	BE to advise outcome of their proposed feasibility study and provide detailed proposals	**Agreed**	Brookfield advised that a further investigation would be made into the use of biogas if supply was made available to Board from the sewage water treatment operator. Biofuel was investigated and found not feasible.	Please provide details of the review in report format for overview.

Utiliities	-	-	BE to provide design estimates for water, gas and electricity to verify and update Utility company info .	**Agreed**		
Service reserve capacity	-	-	BE to ensure that service reserve capacity is maintained during detailed design	**Agreed**		
As fitted drawings, asset register and O&M's	-	-	BE to ensure that all systems shall be linked to the As Fitted drawings via MiCAD drawing mapping, the MiCAD should also integrate with the LMS to provide a fully integrated system complete with interfaces to the PPM and Board's labour resource software systems (Apollo or Eclipse).	**Agreed**	Agreed as detailed in Brookfield Contractors Proposal Vol 3 Completion Strategy 3.24	Confirm that a full operating system will be provided with all of the requested operational activities and working links.
PPM	-	-	BE to provide, as part of the contract, a full PPM manual and system (computer based software package) for all the buildings and for all building and building services elements of the project. This system will incorporate the As Fitted drawings (MiCAD format) and specifications. This schedule shall have a full planned maintenance programme of works that the FM & Estates managers can review to plan and establish their annual maintenance schedules and annual budgets. BE will be responsible for the purchase and installation of the full PPM system, including pc work stations, barcode readers and tablets.	**Agreed**	Agreed as detailed in Brookfield Contractors Proposal Vol 3 Completion Strategy 3.24	Confirm that a full operating system will be provided with all of the requested operational activities and working links.
General Items	- -	- -	BE drawings will require further development to meet ER requirements. Vibration and noise solutions to be included on drawings.	**Agreed** **Agreed**	Part of Stage 2 detailed design activities Part of Stage 2 detailed design activities	

	-	-	Weather proofing to be in accordance with ER's.	**Agreed**	Part of Stage 2 detailed design activities	
	-	-	All plant sound attenuation measures to be shown.	**Agreed**	Part of Stage 2 detailed design activities	
	-	-	All plant tagging to be in compliance with ER's.	**Agreed**	Part of Stage 2 detailed design activities	
	-	-	Compliance with ER's to be demonstrated for all plant and systems maintainability and area isolation.	**Agreed**	Part of Stage 2 detailed design activities which will comply with CDM regulations.	
	-	-	Leak detection to be incompliance with ER's.	**Agreed**		
	-	-	All clinical areas with special emphasis on Operating Theatres, Radiology, MRI and Critical Care to be configured to miminise risk of water damage from plant and equipment. All plantrooms to be treated for mitigation of water leaks in accordance with the ER's.	**Agreed**		
	-	-	Environmental proving of all rooms to be provided in accordance with the ER's. Samples and reliance on BMS only for test results is not acceptable.	**Agreed**	Part of commissioning and handover	
	-	-	All services elements to be included to meet the buildings Fire Engineering solution, eg. Stair Pressurisation, Smoke Control etc. all in accordance with the ER's and to the requirements of building Control.	**Agreed**		
	-	-	Dual path distribution resilience to be provided for all services in accordance with the ER's.	**Not Agreed**	For agreed extent of dual paths for electrical services refer to RFI log, (RFIs 031 & 068).	Not agreed. Heating, Chilled water, controls and BMS must have dual path distribution resilience. All piped services including CWS & HWS must be

	-	-	BMS IP network to be fully stand alone with all active equipment will be included. BMS to be fully compliant with ER appendix M&E5.	**Agreed**		configured to ensure minimum disturbance to services. Refer to paragraphs in section 8.1.3 and 8.1.5 etc.
	-	-	All Mechanical, Electrical, Public Health and Specialist System plant to be designed and installed in modular arrangements incorporating plant N+1 redundancy to minimize disruption during planned maintenance in accordance with the ER's.	**Not Agreed**	Not possible in all cases to do this. (S)HTMs in some cases will not allow for example: HWS systems.	Not accepted. All plant to be N+1. In respect of the specific item the BE bid has 2+1 service units for the HWS which is acceptable
	-	-	BE to provide detailed backup to justify plant selection e.g. Capital Costs Lifecycle & Maintenance Costs Additional Electrical etc loadings Projected Energy costs etc	**Agreed**	Part of Stage 2 detailed design activities	
	-	-	BE shall develop the sustainability brief in conjunction with the Local Authority to ensure compliance with: Building Regulations, BREEAM Healthcare Excellent requirements, Building Control, Glasgow City Council requirements Scottish Government Planning Policies including SPP6 Advice Notes including PAN84 NHS/Board objectives.	**Agreed**	As detailed in contractors proposal and Part of Stage 2 detailed design activities	
Bid Submission – Vol 3 Strategy						
Text [ref]			Comments Incorporated within drawing and ER items above.			

Bid Submission – Vol 4 Specifications						
Spec [ref]			Detailed construction specification to be provided in advance of the	**Agreed**		
Bid Submission – Vol 5 Components						
Component [ref]			Capacities, rating, spare capacity all to be confirmed to reflect accurate building geometry and dimensions during detailed design. List to be expanded to include all ancillary plant e.g. pressurisation units, water filtration plant, fuel systems, wet risers, sprinklers, controls, data wiring, data wiring accessories, racks, power distribution, lighting controls, Structured cabling, nurse call, fire alarms, transformers, luminaire details and BMS etc. Three manufacturers for each plant type to be agreed for all Mechanical, Electrical and Public Health equipment prior to contract execution.	**Agreed** **Agreed**		
Bid Submission – Vol 6 Equipment						
Generally						
Bid Submission – Vol 7 SHTM						
Generally			Compliance to be demonstrated during	**Agreed**		

			the detailed design			
Bid Submission – Vol 8 ADB						
Generally			Refer to exchange of correspondence during CD			

From: Griffin, Heather [redacted]
Sent: 08 June 2009 09:39
To: GSH[redacted]
Cc: Seabourne, Alan; Moir, Peter; David Hall
Subject: FW: Water systems

Please see enclosed - Please find advice re the water systems for the New South Glasgow Hospitals please see 5th June e-mail from John Hood, microbiologist which is supported by the infection control management team.

Many Thanks
Heather

From: Walsh, Tom
Sent: 07 June 2009 17:30
To: Griffin, Heather
Cc: McNamee, Sandra
Subject: FW: Water systems

Hi Heather

Craig's response for info. John is the expert on this so IC would support his view.

cheers

Tom

From: Williams, Craig
Sent: 07 June 2009 17:19
To: Walsh, Tom
Subject: RE: Water systems

Seems OK apart from the decision about biocide, not sure how a new build can have a history but the chilled circulating water, filters and point of water heaters make sense
Craig

From: Walsh, Tom
Sent: 07 June 2009 11:07
To: Williams, Craig; Rankin, Annette
Cc: McNamee, Sandra
Subject: FW: Water systems
Importance: High

Hi Craig/ Annette

Any views for Heather on the attached?

thanks

Tom

From: Griffin, Heather
Sent: 05 June 2009 17:37
To: Walsh, Tom
Cc: Moir, Peter
Subject: FW: Water systems
Importance: High

Hi Tom,

Johns given some advice on the water system he thinks should be put into the haemato-oncology , renal and children's BMTU/haem Onc areas in the new hospitals - Any views on this?

Many Thanks
Heather

From: Hood, John
Sent: 05 June 2009 13:28
To: Griffin, Heather
Cc: Williams, Craig
Subject: RE: Water systems
Importance: High

Dear Heather,
Re: Water System for specialised areas in new SGH/Childrens i.e. adult Haem Onc area, Childrens BMTU/Haem Onc and probably the Renal Wards - definitely the Transplant Unit. This system gives a robust control of legionella.
The system put into the Level 4 Beatson Cancer Centre is
1. All water filtered through memcor to 0.5 microns
2. Chilled circulating cold water (5 to 12 degrees C)
3. Point of use instantaneous water heaters (little water storage , 8kW plus with automatic flushing) raising temp quickly to 43 deg C
4. No biocide added but system needs ability to dose with biocide e.g. chlorine dioxide. Beatson site not associated with legionella so no biocide (just surveillance) but SGH has legionella issues therefore decision will need to take place whether we biocide from the offset or not.
Please note that Craig and Tom Walsh will have a view on all of the above but it is important that the design team realises that these issues need to be addressed.
Kind regards
John Hood
PS below gives you some idea of the rationale and evidence for employing such a system taken from an email sent by me to the Beatson Design/Commissioning Team in 2005.
JH

I have now discussed the proposed water system for the new BMTU part of the Beatson with 2 separate Legionella experts namely Dr Tom Makin of the Royal Liverpool Hospital and Dr John Lee from the Central Public Health Laboratory, Health Protection Agency, Colindale, London.

We all 3 agree that the system as proposed with point of use water heaters (with little water storage and 8kW or more that can be automatically flushed at predetermined intervals - as in the existing GRI BMTU) is effective and complies with L8. All 3 agree that chlorine dioxide is not required from the outset but provision should be made to dose the water supply of the building if required, coupled with the routine surveillance of the water at outlets for TVCs and legionella.

Dr Makin outlined his views in an email of 8 March 2005 - which you already have.

Not only do you have the views of these two experts - but the abstract that I believe has been accepted for presentation at the International Legionella Conference in Chicago this coming October. This study was performed over a 6 year + period in the St Mungo Building, where the BMTU unit has a similar water system to that proposed i.e. memcor filtered water to 0.5micron, chilled and circulated cold at 12oC but with 0.5ppm chlorine dioxide and instantaneous water heaters; and upstairs a unit with memcor filtered water and chlorine dioxide as before but a conventional circulating hot water system and cold water system with thermostatic mixing valves. Therefore the essential difference was conventional hot/cold versus instantaneous water heaters (chlorine dioxide and 0.5 micron filtered water in BOTH systems). The instantaneous water heater system had (statistically) significantly less positve Legionella species surveillance cultures than the conventional hot/cold water system.

We now have in June 2009 2 years surveillance data from the new Beatson - WITH NO ISOLATION OF LEGIONELLA over that period.

-----Original Message-----
From: Griffin, Heather
Sent: 05 June 2009 12:46
To: Hood, John
Subject: RE:

Thanks for this John will pass it on to the Technical Advisers at this afternoons meeting.

Many Thanks
Heather

From: Hood, John
Sent: 05 June 2009 12:45
To: Griffin, Heather
Cc: Williams, Craig
Subject: RE:
Importance: High

Dear Heather,
I confirm that the final filters in the existing top floor of the new Beatson Cancer Centre (ie BMTU and haematology wards) are H13 ie 99.95%. These should be the ones in the spec for the Haem Onc area in the new SGH. Craig should hopefully agree that similar filters should be employed in the Schiallion equivalent areas in the new Childrens Hospital.
Kind regards
John Hood
-----Original Message-----
From: Griffin, Heather
Sent: 05 June 2009 11:08

To: Hood, John
Subject:

Dear John,

Filter information enclosed as discussed.

Many Thanks
Heather

From: Seabourne, Alan
Sent: 18 December 2009 09:27
To: Frew, Shiona
Subject: FW: Brookfield Final Tender
Attachments: Brookfield Accepted Tender Revised 17 12 09.xls

Shiona, please print incolour for me.

From: Douglas Ross [redacted]
Sent: 18 December 2009 09:02
To: Seabourne, Alan
Subject: Fwd: Brookfield Final Tender

>>> Douglas Ross 12/18/2009 6:57 am >>>

Alan / Michael,

Attached is Final Brookfield adjusted tender figure, as draft issued previously first set of nrs is post tender submission (Commercial Clarification Nr 3) and second set is post tender adjustments. Key movements are:-

Dialysis machines omission - should not have been on equipment list

3 Pipe distribution system - tender proposal from Brookfield achieved requirements in a different way than requested, Technical Team recommend & Estates want to revert back to original requirement, this carries a £510,000 Price premium. We have reviewed this figure and satisfied it is a fair target price. Also small adjustment on original bid buying gains calculation.

Brookfield Risk on Energy Targets - as a result of discussions on air change rates in single bedrooms, Brookfield have agreed at no cost to increase air change rates. However this may have a potential impact on energy / carbon targets. A sum has been agreed to be included for Brookfield additional risk to amend design to deliver the targets. Requires detailed calcs to prove either way and do not have time to do this. Rather than risk sitting with Board this is a good deal.

BMJ Post Novation Fee - difference in final agreed fee as agreed by Board and that unloaded during CD Process. BMJ appointment was based on % value of works, adjustments align with the increase value of works than that in original BMJ bid document.

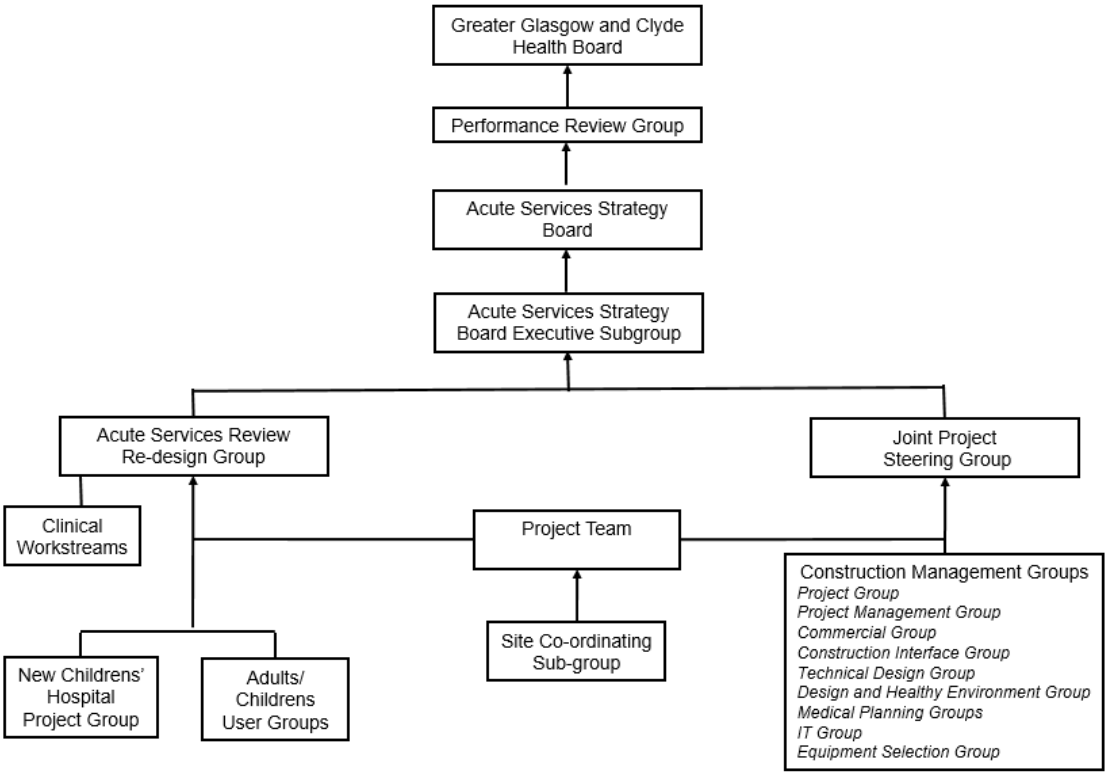
for and on behalf of
Currie & Brown UK Limited

Douglas Ross
Director
Currie & Brown UK Ltd

140 West Campbell Street
Glasgow G2 4TZ
t: [redacted]
f: [redacted]
m: [redacted]
e: [redacted]

www.curriebrown.com

Organogram 3 – Governance Structure 2010



New South Glasgow Hospitals (NSGH) Project

Adult Hospital

Clinical User Group Meeting: No. 1 (1:200 Stage 2)
Department: Critical Care User Group
Date of Meeting: Monday 1st February, 2010
Time: 1.00pm - 5.00pm

Attendance Sheet

Name	Organisation / Role	Attendance
Jacquie Campbell	NHS Greater Glasgow & Clyde	
Sandy Binning	NHS Greater Glasgow & Clyde	
Michelle Boyd	NHS Greater Glasgow & Clyde	
Alan Davidson	NHS Greater Glasgow & Clyde	
Eleanor Deacon	NHS Greater Glasgow & Clyde	
Stephen Gallacher	NHS Greater Glasgow & Clyde	
Gregor Imrie	NHS Greater Glasgow & Clyde	
Andrew Kernohan	NHS Greater Glasgow & Clyde	
Mario MacDonald	NHS Greater Glasgow & Clyde	
Karen McKay	NHS Greater Glasgow & Clyde	
Heather McVey	NHS Greater Glasgow & Clyde	
Scott Muir	NHS Greater Glasgow & Clyde	
David Raeside	NHS Greater Glasgow & Clyde	
Barry Sillers	NHS Greater Glasgow & Clyde	
Iain Thomson	NHS Greater Glasgow & Clyde	
George Welch	NHS Greater Glasgow & Clyde	
Liz Thomson	NHS Greater Glasgow & Clyde	
David Sutton	NHS Greater Glasgow & Clyde	

HEATHER GRIFFIN PROJECT MANAGER

JOHN McGARRITY NHS GGC

DAVID HALL CURRIE & BROOD

Karen Cowell Project Team

RUTH FORREST NHS GGC

PATRICIA MACDONALD

Project Team

DOUG SMITH GGC

NEW SOUTH GLASGOW HOSPITALS & LABORATORY PROJECT
DESIGN ACCEPTANCE PROCEDURE

Building: New South Glasgow Hospital	Issued by:
Subject: Critical Care User gp.	Date issued:
Aspect for Review:	Date return:

DESIGN REVIEW HISTORY

	Level of Approval	Approval Date	Remarks
Design Review 1	C		
Design Review 2			
Design Review 3			

BOARD RESPONSE

Level of Approval

Information referred to:

Detailed comment:

Approval Levels: A= No comment. B= Proceed subject to comments. C= Resubmit with amendments. D=Rejected.

BOARD ACCEPTANCE SIGN OFF

User Group Lead:	[redacted]	Date: 1.2.10
Design Manager:		Date: 1.02.10.
Project Manager:		Date:

DESIGN ACCEPTANCE PROCEDURE FORM

ACTION POINTS

1 Support services co-located to individual clusters
2. Reposition ICU
3. Pharmacy support accessible to all clinical areas
4 Physics areas located in repositioned support services
5 clear lines of sight to patients
6 more staff change more central to whole department including CCU
7 Relatives rooms spread across unit
8 staff rest room moved next to offices and shower facilities
9. Stores not to have curved walls
10 Clinical offices to be located within clinical areas
11 staff lounge if possible to have natural light
12 types of windows to be checked

[redacted] 01/02/10 [redacted] 1/2/2010 [redacted] 1.2.10.

A52523997

New South Glasgow Hospitals (NSGH) Project

Adult Hospital

Clinical User Group Meeting: No. 1 (1:200 Stage 2)
Department: Haemato-oncology User Group
Date of Meeting: Thursday 4th February, 2010
Time: 9.00am - 1.00pm

Attendance Sheet

Name	Organisation / Role	Attendance
Gary Jenkins	NHS Greater Glasgow & Clyde	
Myra Campbell	NHS Greater Glasgow & Clyde	
David Dunlop	NHS Greater Glasgow & Clyde	
Marjorie Johns	NHS Greater Glasgow & Clyde	
Anne Parker	NHS Greater Glasgow & Clyde	
Sandy Sharp	NHS Greater Glasgow & Clyde	
Rosemary Twohig	NHS Greater Glasgow & Clyde	

CHANGE CONTROL PROCEDURE

NEW SOUTH GLASGOW HOSPITAL AND LABS PROJECT

NHS Greater Glasgow and Clyde

Unique CCP Reference No:	

SECTION 1: INITIATION			
Project Name:	Adult ☐ Children ☐ Labs ☐		
Date CCP Raised:		Raised By:	
Date Decision Required By:			

SECTION 2: DESCRIPTION OF CHANGE

Description of change:

Reprofile haemato-oncology area from 14 inpatient rooms and 4 day treatment rooms to 10 [ten] inpatient rooms and 0 [zero] day treatment beds. Requirements for remaining rooms / facilities are as per agreed schedule of accommodation discussed on 04 Feb 2010.

Area to be freed up is not required by Haemato-Oncology and can be reallocated.

Enclosures:	☐ Drawing	☐ Narrative	☐ Budget Cost
Authorised by Director:	JONATHAN BEST	[redacted]	*Signature*
Directorate:	REGIONAL SERVICES	Date:	12.02.10

SECTION 3: IMPACT OF CHANGE

Time:	☐	
Revenue Cost:	☐	No revenue impact anticipated, as change is requested in line with bed model projections for 2015 for reducing revenue.
Capital Cost:	☐	
We recommend that the Total Sum should be:	Contained within Existing Budget ☐ Funded from within the Optimism Bias Sum ☐ Funded from Directorate Budget ☐ No change or effect to the project budget ☐	
Impact Assessed By:		Date Assessed:

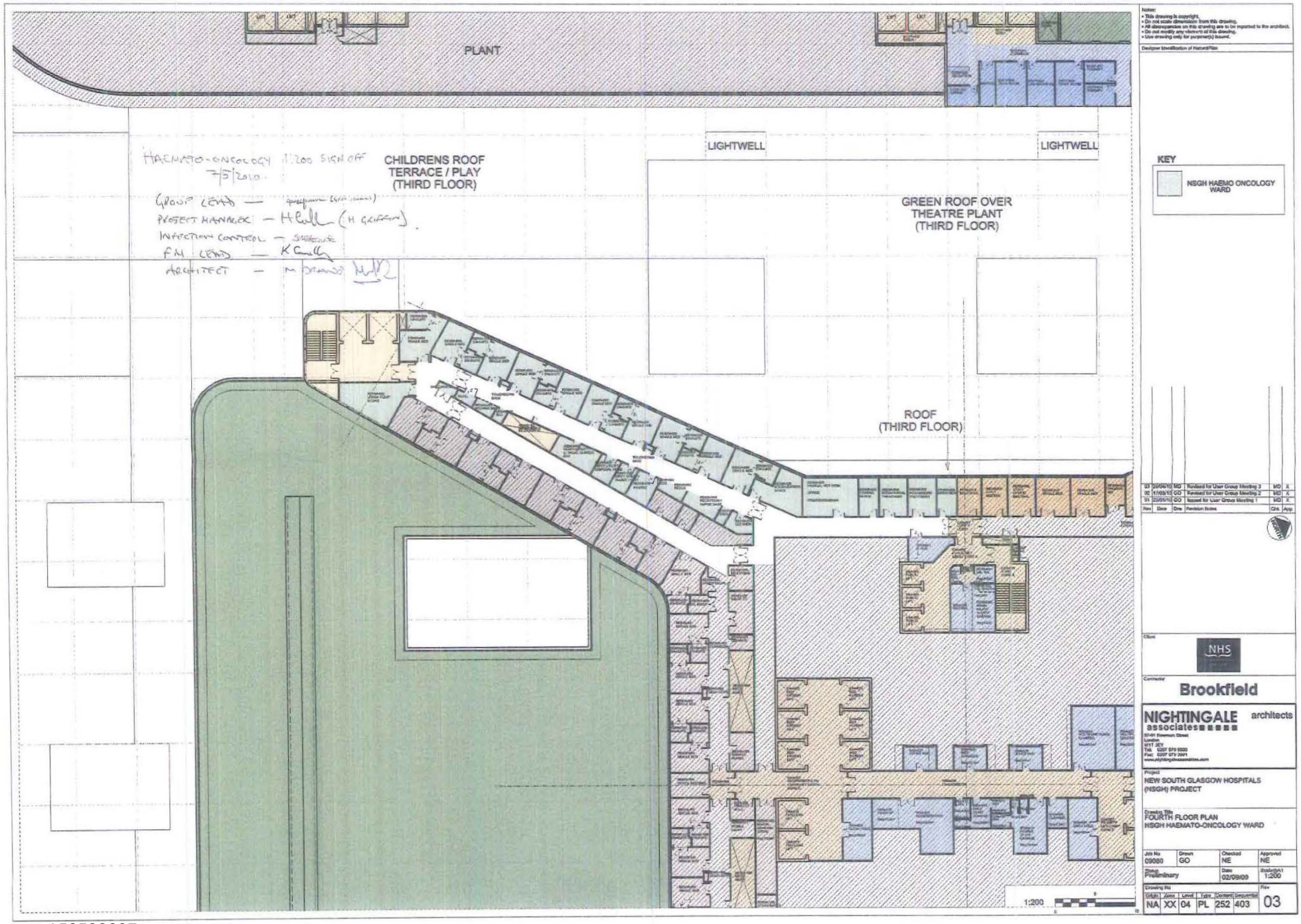
SECTION 4: AUTHORISATION

Levels of Authority:	Value (£)	Assessed	Date
Project Manager/Project Director	0 – 10k		
Executive Sub-group	10k – 1.5m		
Performance Review Group	> 1.5m		

PM to issue instruction to carry out the works if approved

Distribution: PM ☐ PD ☐ Executive Sub-group ☐ BCL ☐ Currie & Brown ☐

Unique CE Reference No:	


PLANT
LIGHTWELL
LIGHTWELL
CHILDRENS ROOF TERRACE / PLAY (THIRD FLOOR)
GREEN ROOF OVER THEATRE PLANT (THIRD FLOOR)
ROOF (THIRD FLOOR)
KEY
NSGH HAEMO ONCOLOGY WARD
NHS
Brookfield
NIGHTINGALE associates architects
NEW SOUTH GLASGOW HOSPITALS (NSGH) PROJECT
FOURTH FLOOR PLAN
NSGH HAEMATO-ONCOLOGY WARD
1:200

A52523997

Group	Lead	Date of 2nd Meet	Venue
Pharmacy	Ellen Griffin	23/03 @ 9-12	Physio Gym – QMH
Emergency	Scott Hendry	23/03 @2-4	Physio Gym – QMH
PICU	Andrew McIntyre/ Jennifer Scarth	24/03 10-2	Physio Gym – QMH
Medical Illustration	Antoinette Par, Cath McFall Winnie Miller	24/03 @ 3PM	Physio Gym – QMH
Child Protection	Jean Herbison	25/03 @ 9-10.30	Physio Gym – QMH
Cardiology	Trevor Richens	01/04 @ 1pm	Physio Gym – QMH
Inpatient Wards	Jim Beattie	26/03 @9-12	Physio Gym – QMH
Public Areas and Admin	Elaine Love	26/03 @ 1-4	Physio Gym – QMH
Imaging	Andrew Watt	29/03 @ 9-12	Physio Gym – QMH
Medical Physics	Dave Sutton	29/03 @ 2	Physio Gym – QMH
Rehab & Therapies	Lesley Smith	30/03 @ 9-1	Physio Gym – QMH
Theatres	Pamela Cupples/ Gregor Walker	30/03@ 1.30-4.30	Physio Gym – QMH
Audiology	Jim Harrigan	31/03 @ 11.30	Physio Gym – QMH
Day Investigation Unit	Maureen Lilley	15/04 9-11	Physio Gym – QMH
Psychiatry/DCFP	Alex Fleming	12/04 @ 9.30	Physio Gym – QMH
Medical Records (adult)	Marilyn Horne Mairi Dick	13/04 @ 9.30	Physio Gym – QMH
Nuclear Medicine	Alice Nicol/ Michael Bradnam	14/04/10 @ 10am	Physio Gym – QMH
OPD	Jamie Redfern/ Karen Prince	14/04 @ 1-5	Physio Gym – QMH
Haemato-oncology	Brenda Gibson/ Dermot Murphy	16/04 @ 2PM	Physio Gym – QMH

New South Glasgow Hospitals (NSGH) Project

New Children's Hospital

Clinical User Group Meeting: No.1 (1:200 Stage 2)
Department: Haemato - Oncology
Date of Meeting: 16/4/10
Time: 2PM

Attendance Sheet

Name	Organisation / Role	Designation	Signature
MAIRI MACLEOD	NHS GG+C	Project Manager	[redacted]
DAVID McLEISH	DOIG+SMITH	COST CONSULTANT	
Scott McMillan	Tribal	Health Planner	
Jonathan Hardcastle	Nightingales	Architect	
FIONA MCCLUSKEY	NHSGGC	SENIOR NURSE ADVISOR	
Jackie Stewart	NHS GGC	Infection Control	
CORAL BRADY	"	SCH BUS/ADM MGR	
BRENDA GIBSON	"	CONSULTANT	
Marjorie Gillies	"	LEAD NURSE AAC	
JANE PENTRELL	NHS GG+C	CLINICAL [redacted] ADVISOR	
Karen Connelly	NHSGGC	Project Team	
Frances Wraith	"	Project Team	
[illegible]	"	RPA	
Michael Bradnam	NHS GGC	Clinical Scientist MPE	
[illegible]	NHS GGC	Nurse Practitioner	
[illegible]	NHSGGC SCHEDULED CARE	SISTER	
Carol Mitchell	NHS GG+C	Pharmacist	
Yvonne Mackinnon	NHS GG+C	SR	
GILLIAN PATON	NHS GG&C	Nurse Educator	
ANNA M CULLO	NHS GGC	ASSOCIATE SPECIALIST	

New South Glasgow Hospitals (NSGH) Project

Adult Hospital

Clinical User Group Meeting: No. 3 (1:200 Stage 3)
Department: Critical Care User Group
Date of Meeting: Thursday, 22 April 2010
Time: 2.00pm - 4.30pm

Attendance Sheet

Name	Organisation / Role	Signature
Jim Crombie	NHS Greater Glasgow & Clyde	
Grant Archibald	NHS Greater Glasgow & Clyde	
Jacquie Campbell	NHS Greater Glasgow & Clyde	
Sandy Binning	NHS Greater Glasgow & Clyde	[redacted]
Michelle Boyd	NHS Greater Glasgow & Clyde	
Alan Davidson	NHS Greater Glasgow & Clyde	
Eleanor Deacon	NHS Greater Glasgow & Clyde	[redacted]
Stephen Gallacher	NHS Greater Glasgow & Clyde	
Gregor Imrie	ITN 1 SGH	[redacted]
Andrew Kernohan		
Mario MacDonald		
Karen McKay		
Heather McVey		[redacted]
Scott Muir		
David Raeside		
Barry Sillers		[redacted]
Iain Thomson		
George Welch		
Liz Thomson		
David Sutton		
HEATHER GRIFFIN	PROJECT MANAGER	
[redacted]	MD	
[redacted]	Project Team.	
[redacted]	NHS Greater Glasgow	
~~Eleanor Deacon~~		
RUTH FORREST	NHS	
Bill Mc GAHAGIE	Doig+Smith Cost Consultants	
PAUL BRITTON	TRIBAL	[redacted]
MARK DRANS.	NIGHTINGALES.	
GRAHAM HARRIS.	NIGHTINGALES	
FIONA MCCLUSKEY	NHSGGC	
JACKIE STEWART	NHSGGC	

NEW SOUTH GLASGOW HOSPITALS & LABORATORY PROJECT
DESIGN ACCEPTANCE PROCEDURE

Building: NSGH	**Issued by**:
Subject: Critical Care User Group	**Date issued**:
Aspect for Review:	**Date returned**:

DESIGN REVIEW HISTORY

	Level of Approval	Approval Date	Remarks
Design Review 1			
Design Review 2			
Design Review 3		22/4/2010.	

BOARD RESPONSE

Level of Approval [ ]

Information referred to: 1:200 SIGN off. Subject to mark up plans.

Detailed comment:

Approval Levels: A = No comment. B = Proceed to comments. C = Resubmit with amendments. D = Rejected.

BOARD ACCEPTANCE SIGN OFF

Medicine

Surgical

User Group Lead:	[redacted]	Date: 22/4/10
User Group Lead:		Date: 22.4.10.
User Group Lead:		Date:
Design Manager:	[redacted]	Date: 22.4.10
Project Manager:		Date: 22/4/2010

INFECTION CONTROL LEAD [redacted] 22/4/10

fm [redacted]

DESIGN ACCEPTANCE FORM

ACTION POINTS

~~1. Reconfigure furniture store 144 & disposal 143 to better separate staff and relatives pathways~~

1 2. Reconfigure disposal hold 134, pharmacy 127 and blood bank 133. Disposal hold & open into central area pod. Equipment store slightly reduced to enlarge pharmacy support

2. Delete staff entrance door & adjacent & relatives rooms 145, 146 into staff lounge and reposition to give 2 doors on same corridor areas

3. CCW 201 is a cleaners store

4 Minor relabeling of wc's & show showers in staff rooms and change public shower room & wc's

5 Change door position on wc & give en-suite wc at room 225 teach / research office

6 Reposition doors at staff wc's to off-set male / female entrances

7. Isolation room arrangement & bed as sketch proposal to improve visibility

[redacted] 22/4/2010

A52523997

22/4/10

8. Swap all linen store 053 & gas store 054 locations

9. Consultant offices 192/193 combine to 1 office
Lead/research office as per sketch

[redacted]

From: Barschtschyk T (Tracy)
Sent: 08 June 2010 10:34
To: Helen Byrne [redacted]
Cc: William Harrod [redacted]; Templeton B (Barbara)
Subject: New South Glasgow Hospital - Next Gateway Review

Helen,

Copy: William Harrod, Review Team Leader

New South Glasgow Hospital - Next Gateway Review

A Gateway Review 2 (Delivery Strategy) of the New South Glasgow Hospital Project was carried out from 27-29 January 2009. The report suggested that the next review (a Gate 3 – Investment Decision) should be arranged to support the approval of the FBC, currently scheduled for September 2010.

Can you confirm:

- when the Project will be ready for the next review;
- that there have been no significant changes in the Project scope or overall risk level since the last Review; and
- that if the Project is ready that we should contact Peter Moir to put arrangements in place.

The purpose and scope of a Gate 3 Review is outlined below for your information.

Tracy Barschtschyk
Programme & Project Support Manager
8 June 2010

Purposes of the OGC Gateway Review 3: Investment Decision

This review investigates the Full Business Case and the governance arrangements for the investment decision. The Review takes place before a work order is place with a supplier and funding and resources committed.

A project will normally go through on OGC Gateway Review 3. However, in some circumstances it may be necessary for a project to repeat the OGC Gateway Review 3.

In particular the Review will:

- Confirm the Full Business Case and Benefits Plan now that the relevant information has been confirmed from potential suppliers and/or delivery partners
- Confirm that the objectives and desired outputs of the project are still aligned with the programme to which it contributes and/or the wider organisation's business strategy
- Check that all the necessary statutory and procedural requirements were followed throughout the procurement/evaluation process
- Confirm that the recommended contract decision, if properly executed within a standard lawful agreement (where appropriate), is likely to deliver the specified outputs/outcomes on time, within budget and provide value for money

- Ensure that management controls are in place to manage the project through to completion, including contract management aspects
- Ensure there is continuing support for the project
- Confirm that the approved delivery strategy has been followed
- Confirm that the development and implementation plans of both the client and the supplier or partner are sound and achievable
- Check that the business has prepared for the development (where there are new processes), implementation, transition and operation of new services/facilities, and that all relevant staff are being (or will be) prepared for the business change involved
- Confirm that there are plans for risk management, issue management and change management (technical and business), and that these plans are shared with suppliers and/or delivery partners
- Confirm that the technical implications, such as 'buildability' for construction projects; and for IT-enabled projects, information assurance and security, the impact of e-government frameworks (such as e-GIF, e-business and external infrastructure) have been addressed
- Evaluate actions taken to implement recommendations made in any earlier assessment of deliverability.

Full details of the Gate 3 Review are available at
http://www.ogc.gov.uk/documents/BOOK_3_APRIL.pdf

Tracy Barschtschyk
Scottish Government
Centre of Expertise for Programme and Project Management
Area 3G(N)
Victoria Quay
Edinburgh
EH6 6QQ

T: [redacted]
E: [redacted]

Project	New South Glasgow Hospitals
Type of Review:	GR3
Start Process Date:	June 2010

Project Team Members		
Name	**Role**	**Contact Number/ email**
ALAN SEABOURNE	SRO	[redacted]
MAIRI MACLEOD	Project Mgr New Children's Hospital Project / **Admin Contact**	[redacted]
HEATHER GRIFFIN	Project Mgr New Adult Hospital Project	[redacted]
PETER MOIR	Head of Major Capital – South Glasgow Hospital Project	[redacted]
Allyson Hirst	**2nd Admin Contact**	[redacted]
	SG Accountable Officer:	Kevin Woods

Review Team Members	
Names:	**Phone no./ email:**
RTL – WILLIAM HARROD	[redacted]
RTM1 – BERT NIVEN	[redacted]
RTM2 – JOHN MCBEATH	[redacted]

Key Dates	
ASM Date:	/
Planning Meeting Date:	13th Sept 1300
PLM Venue	Project Offices, Jubilee Court, Hillington, Glasgow, G52 4LB
Review Dates:	4-6 Oct
Venue:	Modular Building, Brookfield Site Offices, Hardgate Road, Govan

Admin Notes:

PT advised CoE 20/07/10 that Helen Byrne no longer SRO
PT advised CoE 27/07/10 that Alan Seabourne now SRO

Programme/Project Administration Checklist	

Logistics:

- ☒ Letter to SRO to assess Readiness for next Gateway/Healthcheck
- ☒ E-mail EA Company requesting provision of EA
- ☒ Security Clearance Confirmed
- ☐ Cost estimate for External Adviser fee provided to PT:
- ☒ Request Accounting Codes data for re-charging: **NHS Codes**
  - Entity Code:
  - Cost Centre Code:
  - Account Code:
  - Programme Code:
  - Sub-analysis Code: /
- ☒ EA Award letter issued: x2 28/07/10
- ☒ EA Award letter Annex rec:x2
- ☒ Purchase Order Raised/Approved:
- ☒ Purchase Order Receipted:SG400883/6
- ☒ PLM Calendar request issued to PT & RT & GR calendar request to RT (saved in eRDM):
- ☒ Admin Contact Briefing issued and saved to eRDM:
- ☒ Update Review Master Spreadsheet (both tabs):
- ☒ BF Pre-PLM logistics check with Review Admin Contact (1 week before/optional): 13/09/10
- ☒ BF send out Previous report to RT (1 week before planning meeting):13/09/10
- ☒ BF Check with RTL if required docs received for Gateway (1 week before GR):
- ☒ BF chase up report (2 weeks after GR):20/10/10
- ☒ When report rec. Update Review Master Spreadsheet (both tabs) & Reviewers (both tabs) Spreadsheet:
- ☐ Feedback Sheets sent to RTL/RTM/SRO.

NOTES FROM CRITICAL CARE USER GROUP MEETING

24 JULY 2007

PRESENT:

Eleanor Deacon
Gregor Imrie
Cameron Howie
Marian MacDonald
Adrian Dalbey
Shirley Stubbs
Janice Hughes
M Al-Haddad
Heather Griffin

OUTCOME:

Comments re Draft Clinical Output Specification

1) Section 2.1, 2nd paragraph, Scope of Service. Perceptions of the group were that the Stroke Unit staff would want to be near Imaging and Critical Care.

2) ITV Beds, 20 in total

- Discussion regarding the number of single rooms.
- Concerns around nurse staffing if all the beds are single.

ACTION – Janis Hughes (JH) / Eleanor Deacon (ED) and Marian MacDonald (MM) to undertake further work regarding the number of single rooms – will involve Infection control.

Level 2 Beds

Number of single rooms:

- Infection control recommended 50% are single – group don't consider this an issue as long as they have visibility between rooms.
- Different methods of screening between beds available.

ACTION – JH, ED and MM to look at this in more detail.

Level 2 beds upgrade to Level 3

Discussion around number of Level 2 beds which should be capable of upgrade to Level 3.

Ideal would be:

- Up to 5 HDU beds equipped with single overhead pendants.
- Ideally all Level 2 beds serviced with the electrical and gas supply to allow upgrade in the case of a pandemic outbreak.

3) Clean Utility (Prep Room)

- The 4 Prep Rooms need to be located to allow easy access i.e. short journey times from all areas of the unit.

4) Staff Resources Room

- Staff area required for handover, to accommodate 2 consultants with 4 trainees equipped with IT and PACS.

5) Haematology and Blood Management

ACTION – HG to liaise with Labs regarding their plans for supplying blood e.g. blood bank fridges?

6) Functional Relationships (P5)

- Considered desirable rather than essential that Critical Care is located close to the Stroke Ward.

7) Access Requirements – Section 3.3.2 page 6

- Critical Care do not need direct access to and from the helipad.

8) High level Activity Projections

- HG/CH to complete – use previous paper assessing future need.

9) Workload Indicators

- Delete table, not applicable

10) Waiting Areas

- Concern about the size of the Waiting Areas, long discussion took place regarding possible numbers of visitors and timing of their use of the Waiting Areas, impact of ward rounds etc.

ACTION – JH, ED and MM to undertake a piece of work looking at current visitor activity and pattern of the Waiting Room use and likely model for the New South

Glasgow Hospital. Review of Waiting Room Accommodation Schedules will take place once the output of this work is available.

11) Schedules of Accommodation

- Request made that it is minuted that the Schedules of Accommodation have not been signed off by the group. A list of concerns were presented – ***Directions to respond.***

12) Further comments regarding the COS to be directed through HG.

Centre of Expertise: Programme and Project Management

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The Scottish Government

Gateway Review

PROJECT: New South Glasgow Hospital

Gateway Review 3
(Investment Decision)

Report Status:	Final
Date/s of Review:	04/10/10 to 06/10/10
Draft Report Issued to SRO:	06/10/10
Final Report Issued to SRO & Copied to Centre of Expertise:	08/10/10
Delivery Confidence Assessment:	Green
Senior Responsible Owner:	Robert Calderwood
Scottish Government's Accountable Officer:	Kevin Woods
Organisation's Accountable Officer: (where appropriate)	

Contents

1. Background

1.1 Aims of the Project

1.1.1 The New South Glasgow Hospitals project is the largest NHS project currently underway in the UK. It involves the co-location and reconfiguration of Acute Services onto the Southern General Hospital site. The project is one of the key vehicles for the delivery of the Greater Glasgow and Clyde Acute Services Strategy. The project sets out to deliver the following:

- Provision of a New Adult & Children's Hospital complex which will be state of the art in all aspects of its design, construction and operation and puts in place the renewal of another part of Glasgow's acute healthcare facilities;
- Meets a major element of service provision through implementing the next stage of ASR;
- Provides radically redesigned clinical services to meet the needs of the local and wider Scottish population;
- Public, staff and other agencies involved in developing design;
- Achieves greater clinical adjacencies and co-locations within and between Adult Acute & Children's Acute Services;
- Provides greater value for money than compared to the present service configuration;
- Will improve recruitment of all types of staff;
- Puts patients at the heart of service planning;
- Will operate in conjunction with new hospitals at Stobhill and Victoria, in addition to the 2 other inpatient sites in Glasgow.

1.2 Driving Force for the Project

1.2.1 NHS Greater Glasgow approved the Acute Services Strategy (ASS) to modernise services across the city in 2002. Ministerial approval was received in August 2002. The strategy is underpinned by extensive consultation with local communities and planning partners, locally and nationally, and identifies the future reconfiguration of services in Greater Glasgow - requiring investment capital of some £900 million overall.

1.2.2 The strategy is based on retaining three adult in-patient hospitals at Southern General Hospital, Glasgow Royal Infirmary and Gartnavel General Hospital, supported by two new hospitals at Stobhill Hospital and the Victoria Infirmary.

1.3 Procurement/Delivery Status

1.3.1 The project was in the process of completing the Final Business Case (FBC) at the time of this review, with approval expected during November 2010.

1.4 **Current Position Regarding Gateway Reviews**

1.4.1 This is the third review of the project. A Gateway 1 Business Justification review was carried out in January 2008, and a Gateway 2, Delivery Strategy review was carried out in January 2009.

2. Purpose and Conduct of the Review

2.1 **Purpose of the Review**

2.1.1 Gateway Review 3: Investment decision. This Review investigates the Full Business Case and the governance arrangements for the investment decision to confirm that the project is still required, affordable and achievable. The Review also checks that implementation plans are robust.

2.1.2 A full definition of the purpose of a Gateway Review 3 is attached for information at **Appendix A**.

2.1.3 This report is an evidence-based snapshot of the project's status at the time of the review . It reflects the views of the independent review team, based on information evaluated over a three to four day period, and is delivered to the SRO immediately at the conclusion of the review.

2.2 **Conduct of the Review**

2.2.1 The Gateway Review 3 was carried out on 04/10/10 to 06/10/10 at the project offices on the old Southern General Hospital site.

2.2.2 The Review Team members and the people interviewed are listed in **Appendix C**.

2.2.3 The Review Team would like to thank the SRO, the project team and all interviewees for their support and openness, which contributed to the Review Team's understanding of the project and the outcome of this review.

3. Gateway Review Conclusion

3.1 **Delivery Confidence Assessment.** The Review Team finds that the New South Glasgow Hospitals project has carried out a first class procurement using competitive dialogue and is very well placed to gain approval for the Final Business Case (FBC) in the next two months. The project team continues to plan effectively for each phase of delivery and is able to build both capability and capacity into the team as and when required. The relationship with the contractor (Brookfield) is strong, and the move of the project team into a shared office suite on site is providing additional benefits. There are many lessons to be learnt from this project and efforts to capture and share them will deliver real value to many other projects in the health and wider public sectors. Overall delivery confidence is **Green.**

The Delivery Confidence assessment RAG status should use the definitions below.

RAG	Criteria Description
Green	Successful delivery of the project/programme to time, cost and quality appears highly likely and there are no major outstanding issues that at this stage appear to threaten delivery significantly
Amber/Green	Successful delivery appears probable however constant attention will be needed to ensure risks do not materialise into major issues threatening delivery
Amber	Successful delivery appears feasible but significant issues already exist requiring management attention. These appear resolvable at this stage and if addressed promptly, should not present a cost/schedule overrun
Amber/Red	Successful delivery of the project/programme is in doubt with major risks or issues apparent in a number of key areas. Urgent action is needed to ensure these are addressed, and whether resolution is feasible
Red	Successful delivery of the project/programme appears to be unachievable. There are major issues on project/programme definition, schedule, budget required quality or benefits delivery, which at this stage do not appear to be manageable or resolvable. The Project/Programme may need re-baselining and/or overall viability re-assessed

3.2 The approach to the competitive dialogue (explored in more detail in this report) has been very successful.

3.3 A summary of the Report Recommendations is available at **Appendix B**.

4. Findings and Recommendations

4.1 Assessment of the proposed solution

4.1.1 The New South Glasgow Hospital project will deliver a very significant scope, and also forms part of the wider Acute Services Review (ASR), which started in 2002. The fact that the wider ASR is an ongoing process of change that has been underway for 8 years, means that the development and implementation of new ways of working in the new hospitals is already well advanced, has become part of normal working and therefore does not present a significant level of challenge to this project. The positive and supportive mindset among staff has been achieved through lengthy and comprehensive engagement. The project has also learnt from the recent successful delivery of two Ambulatory Care and Diagnostic hospitals at Stobhill and Victoria, which has created a level of trust between the project and clinical staff.

4.1.2 The project went through an extended period of planning to produce an exemplar design of considerable detail. This work strengthened the position of the project team in the dialogue phase of the competitive procurement. Although this approach may be regarded as a limit to the level of design innovation from bidders, the review team heard evidence that this has not affected the outcome in this project.

4.1.3 The review team heard a number of interviewees comment on the high quality of the proposed design and the opportunities it will provide. This positive sense has been enhanced by the creation of mock-up rooms, which are being used to demonstrate to staff the layout and quality of materials, and appear to have been successful in increasing understanding of the design proposals.

4.1.4 The project team acknowledges that since the original specification was written, the scope of what the project may be asked to deliver has increased. The impact of the changes to the environment – in terms of wider health service targets, new ways of working and the structure of the Greater Glasgow and Clyde NHS Board – contribute to a requirement for ongoing efficiency improvements from the combined hospitals. The project team are confident in their ability to deliver flexible facilities that are future-proofed as far as possible.

4.1.5 The choice of the NEC3 contract for a project of this size and procurement route is appropriate. The project has taken on specialist support for contract management and the structures required by the contract have been established and are working well.

Recommendations:

None

4.2 Business case and stakeholders

4.2.1 At the time of this review, the project team were in the final stages of completing the FBC. The process of gaining approval through the internal governance of Greater Glasgow and Clyde NHS Board (the Board), and the external processes of the Scottish Government, is clearly defined. The FBC includes a description of the wide range of benefits expected,

4.2.2 The project continues to support the wider objectives and strategy of the Board. The review team understands that the anticipated cost in the FBC remains affordable and within the outline business case (OBC) figure and confirms the effective financial control of the project. The review team was impressed with the level of detailed understanding demonstrated by the finance team both of the capital and whole life costings of the project.

4.2.3 The review team heard substantial evidence that the project will be capable of delivering wide ranging improvements to patient care. There is also a recognition that benefits will have to be managed to ensure successful delivery. The FBC sets out a range of benefits expected from the project although in a number of areas benefits are described at a high level, and the project has not yet set targets for delivery or captured the baseline data needed to measure and thereby manage delivery.

4.2.4 The project continues to maintain a broad and effective engagement with stakeholders, both staff and the community. The review team was impressed by the highly graphical approach to communications, and the use of a ‘fly though’ video on the project’s website was particularly powerful.

Recommendations:

The project should continue to further develop the benefits management plan to define targets and gather baseline data.

4.3 Risk Management

4.3.1 The project is working with a series of risk registers including contract, construction and the project's own internal register. The review team noted that the internal risk register does not contain all of the wider risks to successful delivery – for example the impact of political decisions – that were mentioned to us in interview. From our interviews, there is generally a wide recognition and understanding of all the risks facing the project.

Recommendations:

The project should update the project risk register to capture all types of risk that are being managed.

4.4 Review of current phase

4.4.1 The current phase of the project has been dominated by a highly focused procurement process. The project has used the competitive dialogue procurement route to appoint their main contractor – Brookfield. The review team found that both client and contractor staff acknowledged that the competitive dialogue period was shorter than typically found, (4 months within a total of 9 months, compared to a more normal total of 18 months). However, due to the successful delivery of a number of critical supporting elements, this approach has been highly effective and efficient. There were a number of key contributing factors, including:

- A high quality and detailed exemplar design;
- A highly structured plan of meetings;
- Informing the bidders what to expect – and sticking to the plan;
- Commitment and availability of decision makers (senior management).

If time allows, the project should capture the key points of the procurement in a case study and seek to share as widely as possible across the public sector. The review team is aware of significant interest in the project from UK health sector, and of the willingness of the project to share experience.

4.4.2 The commitment of senior NHS management to the project, including the Chief Executive, is significant. The project's governance and management meeting structure is comprehensive and effective. The project has built high levels of trust with both clinical staff and management, which means that decisions are made in a timely manner.

4.4.3 The review team were impressed to see that, since our review in January 2009, the project remains on schedule.

Recommendations:

The project should develop a case study of the procurement approach.

4.5 **Readiness for next phase – Readiness for service**

4.5.1 The project team has demonstrated an ability to adjust resource and capability levels to meet the needs of each phase of activity. The review team picked up evidence of a strong team approach including the contractor and professional advisors. The project team has co-located with the contractor on the construction site. Being co-located is already providing benefits in communication and teambuilding. The future stages of the project will present a series of challenges for the team, particularly in resourcing the commissioning of a building of such scale.

4.5.2 The contract includes Key Performance Indicators (KPIs) for the contractor to engage local employees and engage local Small and Medium sized Enterprises (SMEs). The review team heard that the contractor is working in partnership with the South West Glasgow Regeneration Agency to meet these targets. The review team also heard that the contractor is finding it challenging to find local suppliers with appropriate skills and capacity. However, where possible, the contractor procurement team is packaging work so that it is attractive to local contractors.

4.5.3 The project team is exploring the potential for the contractor to recruit and train the M&E team who will transfer to the client on practical completion. This approach is designed to ensure that the client has a sound technical knowledge of the buildings from day one.

4.5.4 Where possible, the Board is now developing and implementing new ways of working needed to maximise the benefits of the move to the new facilities, several years ahead of the transfer of services.

4.5.5 The review team was pleased to see that the project's leadership has been strengthened by the formal appointment of a deputy project director.

Recommendations:

None

5. **Previous Gateway Review Recommendations**

5.1 The project has responded to the recommendations in the previous review.

6. Next Gateway Review

The next Gateway Review Gate 4, Readiness for Service (for the Laboratory Building) is expected in January 2012.

7. Distribution of the Gateway Review Report

7.1 The contents of this report are confidential to the SRO and their representative/s. It is for the SRO to consider when and to whom they wish to make the report (or part thereof) available, and whether they would wish to be consulted before recipients of the report share its contents (or part thereof) with others.

7.2 The Review Team Members will not retain copies of the report nor discuss its content or conclusions with others.

7.3 A copy of the report is lodged with the Scottish Government's Centre of Expertise (CoE) for Programme and Project Management so that it can identify and share the generic lessons learned from Gateway Reviews. The CoE will copy a summary of the report recommendations to the Scottish Government's Accountable Officer, and where appropriate, to the Organisation's Accountable Officer where the review has been conducted on behalf of one of the Scottish Government's Agencies, NDPBs or Health Sector organisations.

7.4 The CoE will provide a copy of the report to Review Team Members involved in any subsequent review as part of the preparatory documentation needed for Planning Meetings.

7.5 Any other request for copies of the Gateway Report will be directed to the SRO.

Appendix A - Purpose of a Gateway Review 3: Investment Decision

- Confirm the Full Business Case and Benefits Plan now that the relevant information has been confirmed from potential suppliers and/or delivery partners
- Confirm that the objectives and desired outputs of the project are still aligned with the programme to which it contributes and/or the wider organisation's business strategy
- Check that all the necessary statutory and procedural requirements were followed throughout the procurement/evaluation process
- Confirm that the recommended contract decision, if properly executed within a standard lawful agreement (where appropriate), is likely to deliver the specified outputs/outcomes on time, within budget and provide value for money
- Ensure that management controls are in place to manage the project through to completion, including contract management aspects
- Ensure there is continuing support for the project
- Confirm that the approved delivery strategy has been followed
- Confirm that the development and implementation plans of both the client and the supplier or partner are sound and achievable
- Check that the business has prepared for the development (where there are new processes), implementation, transition and operation of new services/facilities, and that all relevant staff are being (or will be) prepared for the business change involved
- Confirm that there are plans for risk management, issue management and change management (technical and business), and that these plans are shared with suppliers and/or delivery partners
- Confirm that the technical implications, such as 'buildability' for construction projects; and for IT-enabled projects, information assurance and security, the impact of e-government frameworks (such as e-GIF, e-business and external infrastructure) have been addressed
- Evaluation of actions taken to implement recommendations made in any earlier assessment of deliverability.

Appendix B - Summary of Recommendations

Ref No.	Report Section	Recommendation	Status (C.E.R.)
R1	4.2.4	**The project should continue to further develop the benefits management plan to define targets and gather baseline data.**	E
R2	4.3.1	**The project should update the project risk register to capture all types of risk that are being managed.**	E
R3	4.4.3	**The project should develop a case study of the procurement approach.**	R

Each recommendation has been given Critical, Essential or Recommended status. The definition of each status is as follows:

CRITICAL - Critical for immediate action, i.e. to achieve success the project should take action immediately to address the following recommendations:

ESSENTIAL - Critical before next Review, i.e. the project should go forward with actions on the following recommendations to be carried out before the next Gateway Review of the project:

RECOMMENDED - Potential Improvements, i.e. the project is on target to succeed but may benefit from uptake of the following recommendations.

Appendix C - Review Team and Interviewees

Review Team:

Review Team Leader:	William Harrod
Review Team Members:	Bert Niven
	John McBeath

List of Interviewees:

Name	Organisation/Role
Robert Calderwood	Chief Executive – NHS Greater Glasgow and Clyde
Alan Seabourne	Project Director – New South Glasgow Laboratory and Hospital Project (NSGHLP)
Jane Grant	Chief Operating Officer – Acute Services NHS Greater Glasgow and Clyde
Paul Serkis	Commercial Director – Brookfield Europe
Ross Ballingall	Project Director – Brookfield Europe
Peter Gallacher	Director of Finance – NHS Greater Glasgow and Clyde
Alan McCubbin	Head of Finance Capital and Planning NHS Greater Glasgow and Clyde
Douglas Ross	Currie and Brown – Director
David Hall	Currie and Brown – Director
Jackie Stewart	Infection Control Nurse for NSGHLP - NHS Greater Glasgow and Clyde
Gordon Robertson	Communication Manager - NHS Greater Glasgow and Clyde
Stephen Gallacher	Project Medical Advisor (Adults) - NHS Greater Glasgow and Clyde
Jane Peutrell	Project Medical Advisor (Children's) - NHS Greater Glasgow and Clyde
Mairi Macleod	Project Manager – New Children's Hospital - NHS Greater Glasgow and Clyde
Emma White	Director – Project Lead Nightingales (Telephone Call)
Heather Griffin	Project Manager – New Adult Hospital - NHS Greater Glasgow and Clyde
Peter Moir	Head of Major Capital Plans - NHS Greater Glasgow and Clyde

APPENDIX B

Briefing: Haematology and Haemato-oncology in NSGH

Regional Services Division, June 2013

Current service provision

At June 2013, there are 52 designated Haematology inpatient beds across NHS Greater Glasgow & Clyde: 38 at BWOSCC and 14 at the Southern General Hospital.

The wards at the Beatson manage acute and non-acute haematology patients, chronic and acute leukaemia, inpatient chemotherapy, inpatient radiotherapy, and house both the Scottish Unrelated Donor Bone Marrow Transplant service and the West of Scotland Sibling Donor transplant programme. Ward 24 at SGH manages both acute and non-acute patients.

At all three sites in Clyde, non-acute haematology inpatients are admitted to Emergency Care & Medicine beds and are managed with input from haematology. Acutely unwell patients and planned inpatient chemotherapy patients already transfer to either SGH or Beatson WOSCC.

Planned service model at 2015

Under the agreed Bed Model, bed numbers were forecast to reduce to 48 beds at 2015, with 38 remaining at the Beatson WOSCC and 10 being on Level 4 of the New South Glasgow Hospital. Both sites would have maintained a mix of acute and non-acute patients. Both Bone Marrow Transplant Units would have remained at the Beatson WOSCC.

No changes were planned to other patient care services, with outpatients and daycases being maintained in all sectors:

- GRI/Stobhill for North East Glasgow
- SGH/New Victoria for South Glasgow
- BWOSCC/Gartnavel General for North West Glasgow
- Inverclyde Royal Hospital
- Royal Alexandra Hospital
- Vale of Leven Hospital

Updated service model: new proposal

Following a series of clinical meetings for the Clinical Service Review, the haematologists expressed the view that the new service model should split acute and non-acute haematology, with preference for maintaining all acute services at the New South Glasgow Hospital, due to the on-site availability of ITU. This would allow future-proofing of the service against changes in patient populations (e.g. paediatric sickle cell patients graduating to adult care) and fluctuations in activity.

The updated proposal is:

- 19 beds in Ward B7 in Beatson WOSCC to remain for non-acute haematology and haemato-oncology.
- 34 beds to transfer from Wards B8 and B9, and SGH Ward 24:
    - 19 beds for the Bone Marrow Transplantation programmes
    - 10 beds from Ward 24, SGH
    - 5 beds for other acute haemato-oncology

This reflects an increase in bed numbers as a result of the national review of Bone Marrow Transplantation, which has recommended that NHS GGC be the single site for all unrelated and sibling transplantation for Scotland, and that overall transplantation rates in Scotland should be increased, in line with practice across the UK. If accepted by Board Chief Executives, this would see a 25% increase in activity, or 5 beds, 3 beds for projected increases in activity and 2 beds for the transfer of sibling donor activity from Grampian and Lothian.

The clinical drivers for this service model are:

- **To ensure 24/7 on-site ITU cover and to meet clinical standards**
  For Bone Marrow Transplantation (all forms), services require JACIE accreditation which already stipulates that there must be robust and reliable access to ITU-level care. This is currently available on the Gartnavel site, supported by ITU at the Western Infirmary, but is unlikely to be maintained at existing levels after 2015.

  The Beatson WOSCC is the only UK transplant centre which does not have full ITU access on-site, and it is expected that future iterations of the JACIE standards may make this an explicit requirement.

  The existing NICE and British Society of Haematology standards for the management of acute haemato-oncology patients specify on-site access to HDU, ICU, central line insertion facilities, dialysis or haemofiltration and interventional radiology. After 2015, the New South Glasgow Hospital will be the only site which can fulfil these requirements, as all inpatient Renal services will also be on Level 4, NSGH.

- **Out-of-hours care**
  At present, haematology out-of-hours is covered by multiple high-intensity (1 in 2 to 1 in 4) rotas at consultant level. This model would allow a single specialist rota, based at nSGH. All out-of-hours admissions would be to that site.

  Hospital at night services at BWOSCC would provide cover for the 19 non-acute haematology beds there.

The planned accommodation on Level 4, NSGH, is therefore:

- 65 dedicated renal beds (as per bed model)
- 28 dedicated haemato-oncology beds, including Bone Marrow Transplantation
- 6 beds, staffed and managed by haematology, but able to be flexed into by renal

Within the renal beds, two isolation rooms (+/- pressure, Hepa-filtered) will be available for use by both specialties.

Finance

The capital cost for this change is £840k. This has been costed through the change control processes with the New South Glasgow Hospital Project Team and the architects.

No additional revenue costs are required for this proposal. At 2015, RSD expected to have 48 funded and staffed beds. This 53-bed proposal includes 5 additional beds for which national funding has been sought. If the national Bone Marrow Transplant review concludes that sibling transplantation should not be transferred to Glasgow, the planned increases in unrelated donor activity (3 beds) would still have to be agreed through NSD. There are existing proposals with NSD for additional medical and nursing costs for this.

VHF patient management within the Brownlee ward; high possibility or confirmed case.

IT is assumed that a patient with high possibility or confirmed VHF will present to another health care facility and this case will be discussed with the ID consultant on call. It is possible although unlikely that a patient may inappropriately present to the Brownlee without prior warning.

The objective of the management of a patient with possible VHF is to provide a high level of patient care with maximum safety to others including staff, other patients and visitors. The expectation is that if VHF is confirmed the patient will be transferred to a suitable unit with high isolation facilities at the earliest opportunity. The expectation is that a patient with confirmed VHF would be transferred within 24-48 hours of arriving in the Brownlee.

1. Staffing for 48 hours

a. Doctors
    i. Consultant(the receiving consultant)
    ii. Registrar
b. Nurses
    i. 4x trained

Specific staff members including all the ID consultants have agreed to be called out with normal working hours and have agreed to be available to make up this response team. Further other normal activities must be continued and further consultant staff member is likely to have to be identified to liaise with Public Health and management. This should not be the consultant looking after the patient.

The aim is to have the **minimal** number of staff involved to care for the patient safely.
Staff members must be trained in PPE. Staff members should only access the room for care needs if necessary. Staff members must work in pairs and never enter the room unaccompanied.
It is anticipated that the consultant on call would manage the patient for the duration of the patient's admission. He/she would be supported by one registrar. All their regular duties would cease and require to be cancelled or covered.
There would be 4 nurses in total over a 48 hour period to provide nursing support.
No other staff members would enter the patient's room. There would be no auxiliary staff/cleaners/porters/other medical or nursing staff going into the room. For this reason the staff would be required to be on site for the duration of the patients stay i.e. max 48 hours with facilities for rest, showers and food supplies on site.
Nursing and medical staff would be required to attend to cleaning of the room and doctors would be required to assist the nurse with nursing and cleaning duties as required.
At all times a staff member in the clean area will be designated to hold the walky-talky to respond to needs of the patient or the HCW in the room. Exact shift patterns will be determined by the senior nurse and consultant but it is not anticipated that any staff member should be in the room for more than 1 hour for any continuous time period. The length of time taken to remove 2 sets of PPE needs to be taken into consideration when planning work patterns.
The only other people entering the room will be the waste removal contractors.
All staff must complete a record of entering and leaving the room.

2. Receiving a patient

a. Mobile patient
    i. It is likely that a patient will attend in an arranged way and most likely that a patient will be relatively asymptomatic at the time. If a SORT ambulance team transfers the patient they will be instructed to bring a patient to the rear fire escape doors and staff wearing appropriate PPE(depending on the risk assessment) will receive them at the bottom of the stairs and the patient will be led into the dedicated negative pressure room.
b. Immobile/symptomatic patient
    i. The route from the corridor will be cleared with a staff members posted at each area to ensure no inadvertent contact with the patient by other staff or the public.
    ii. The medical and nursing staff looking after the patient will be ready in appropriate level PPE to immediately assess the patient.
c. The appropriate management and Public Health must be informed at the earliest opportunity if the patient is considered high risk.
d. Unexpected patient
    i. If a patient/member of public reports to any staff member in reception or elsewhere that they think they have VHF they should be moved ideally directly to a negative pressure room or if not available to any empty room and a senior staff member called. An assessment as per guidelines should be carried out wearing appropriate PPE (see below).

3. Rooms

a. When a VHF case is confirmed then the ward will be divided into 2 areas by a plastic division. All 4 negative pressure rooms and room 29 and 30 will be sealed off to the essential 6 staff as designated above. No other staff will be within this area.
    - Room 30 will be used for donning PPE
    - Room 29 will be used for showering and changing after working with the patient
    - The 3 other negative pressure rooms will be used for sleeping and relaxing in between patient care episodes.
b. Management will need to arrange urgent movement of those patients already occupying the designated rooms, if necessary moving patients to MAU if they cannot be accommodated immediately within GGH.
c. Any extremely high risk patients within existing negative pressure rooms e.g. smear positive MDR TB would need to be considered carefully before moving them.
d. Waste will be removed by a commercial company using the fire escape.

4. PPE

a. Low risk

Patients categorised as low risk should be isolated in a negative pressure room and treated accordingly until the VHF result is back. PPE should be as per guidance(PDF on VHF folder in Brownlee Common Folders)
http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/public-health/health-protection/blood-borne-viruses/viral-haemorrhagic-fever.aspx

b. High risk-all PPE donning and doffing must be done with a buddy and signed off each time.
   i. All staff managing these patients must have completed PPE training within the last year
   ii. All PPE will be put on in a designated room beside the patient.
   iii. Before leaving the patients room the HCW must ensure their buddy is outside and prepared to receive and assist them
   iv. All PPE will be removed in the dirty anteroom area designated by the sheet. There will be a bin in the anteroom for discarded PPE
   v. The HCW will leave the room using an Actichlor wipe to open the inner door.
   vi. The slow and deliberate removal of PPE must be checked by the buddy at every stage
   vii. Once the HCW has removed PPE they can go directly to the designated shower area opposite the negative pressure room.
   viii. The buddy must ensure all used PPE is placed into the bin safely and wipes the anteroom area with Actichlor.
   ix. The buddy will wipe the wellies with Actichlor*
   x. The buddy must remove their own PPE and gloves safely ensuring to clean hands before preparing for the next HCW.
   xi. Any deviation from the protocol must be recorded and discussed with the consultant in charge.

*in staff with larger feet the overboots do not go over the wellies. In these staff the wellies will be contaminated and the buddy must ensure a bucket of Actichlor is available to place the dirty wellies into to decontaminate them.

5. Samples

a. Any patient samples must be considered carefully with **minimal sampling** to reduce the risk to healthcare workers but ensuring appropriate samples are taken to manage the patient to a high clinical standard.
b. See GG&C lab SOP **before** taking samples on intranet

http://www.staffnet.ggc.scot.nhs.uk/Info%20Centre/PoliciesProcedures/GGCClinicalGuidelines/GGC%20Clinical%20Guidelines%20Electronic%20Resource%20Direct/Possible%20Viral%20Haemorrhagic%20Fever%20_VHF_Management%20in%20Adults.pdf

c. Process
    i. Make sure all sample bottles are labelled and prepared **before** taking them into the room.
    ii. Make sure all equipment is available and in position **before** venesection is performed
    iii. Ensure the HCW taking the sample gives clear instruction to their colleague within the room to make sure accidents are minimised.
    iv. Ensure that a helper is outside in the ante room ready to receive the samples and is wearing gloves and has the appropriate number of bags to receive the samples.
    v. Once the samples are taken one HCW will open the door using an actichlor wipe. The other HCW will slowly drop each sample into an open bag which is being held by the helper outside. This should be a no touch technique and the gloves on the helper are a precaution. The samples should be put into the protective boxes within their plastic bag by this helper within the anteroom and despatched as per SOP.
d. Do not take any samples that will not significantly alter the patient outcome.

6. Medication including IV fluids

a. All medication must be prepped and checked before it being sent into the patient's room. The kardex and fluid charts will be kept outside the room. Any medication required will be requested by the staff within the room and prepared to the correct dose by staff in the clean area.
b. Once a medication is administered or IV fluids are started this will be communicated to the staff in the clean area to record this.

7. Other clinical issues

a. In a confirmed case
    i. Immediate plans should be made to transfer the patient to an appropriate facility
    ii. Auscultation will not be possible
    iii. Central line access will not be possible as Xray cannot be performed so will be potentially hazardous to patient.
    iv. Ventilation will not be possible but advice from Intensivists can be sought from the on call ITU consultant at the WIG e.g. advice re inotropes etc.
    v. Broad spectrum antibiotics are likely to be required
    vi. Consideration should be given to a Flexi-seal and urinary catheter if considerable fluid loss from diarrhoea is present
    vii. IV access with considerable fluid replacement should be anticipated as the disease progresses.

	Low Possibility of VHF	High Possibility of VHF	Confirmed VHF	Comments
Criteria	The patient is not bleeding / bruising and there is no uncontrolled vomiting or diarrhoea (NOTE: If patient has bruising or bleeding, manage as High Possibility of VHF)	The patient is categorised as a being a High Possibility of VHF may or may not be bleeding / have uncontrolled vomiting or diarrhoea	The patient has a positive VHF test and may or may not be bleeding / have uncontrolled vomiting or diarrhoea	
Patient placement (accommodation)	Single Room En suite / own commode	Single Room en suite / own commode – if possible: negative pressure and ante-room within in an infection diseases unit	High-Level Isolation Unit (HLIU) Single Room en suite / own commode – if possible: negative pressure and ante-room within in an infection diseases unit	• Appendix 4 (P 42) provides advice on managing a confirmed VHF patient in a non-HLIU environment. • Appendix 5 (P 52) Transfer arrangements • As above contact Scottish Ambulance Service early to ensure early transfer
Moving between wards and departments within the hospitals (including theatres)	As per standard hospital procedures	Do not transfer unless under supervision of IPCT/ID Physician	Do not transfer unless under supervision of IPCT/ID Physician	IPCT – Infection Prevention and Control Team ID – infectious disease
Contact with people	Limit contact with other people	Limit contact with staff keep an up to date list of staff who enter the room for possible contact assessment Clinical staff only in the room, i.e. no domestics staff, HCWs to perform routine cleaning	Limit contact with staff Keep an up to date list of staff who enter the room and who have been in contact with the patient throughout their care for contact assessment Clinical staff only in the room, i.e. no domestics staff, HCWs to perform routine cleaning	Visiting restrictions should apply for all High Possibility and Confirmed cases until VHF negative confirmed.
Precautions required	Standard Infection Control Precautions (SICPs) + Contact Precautions	SICPs + Transmission based precautions (TBPs), i.e. Contact + Droplet + Airborne Precautions	SICPs + Transmission based precautions (TBPs), i.e. Contact + Droplet + Airborne Precautions	NB there is no evidence of airborne transmission airborne precautions are an additional precautionary control measure
Personal Protective Equipment (PPE)	Use PPE to prevent exposure to blood and or body fluids and to prevent direct contact with the patient	PPE must establish a full barrier against contact with contaminated surfaces, splash, spray, bulk fluids and aerosol particles PPE must cover all exposed skin with sufficient integrity to prevent any ingress or seepage of liquids or airborne particles	PPE must establish a full barrier against contact with contaminated surfaces, splash, spray, bulk fluids and aerosol particles PPE must cover all exposed skin with sufficient integrity to prevent any ingress or seepage of liquids or airborne particles	
PPE: To cover hands	Disposable, single use gloves (hand hygiene before donning & on removal)	If no bleeding/bruising or D&V Single gloves Otherwise: Disposable double gloves or Disposable Marigold Style (hand hygiene on before donning & on removal)	Disposable double gloves or Disposable Marigold Style – if bleeding (hand hygiene on before donning & on removal)	D&V diarrhoea and or vomiting Disposable means single use. Hand protection must overlap the junction of the gown or coverall, i.e. gown wrist junction
PPE: To cover body area	Disposable plastic apron over uniform	If no bleeding/bruising or D&V Plastic apron Otherwise: Disposable fluid repellent gown or coverall Scrubs underneath	To enter room: fluid repellent gown or coverall. Plastic apron over the top of gown / coverall. Scrubs underneath	D&V diarrhoea and or vomiting Disposable means single use See: HPS PPE advice
PPE: To cover head and neck	Only cover head / neck if splash risk possible	If no bleeding/bruising or D&V Fluid repellent surgical face mask with compatible eye protection (goggles or visor) Otherwise: Wear full head and neck protection to enter the patient's room	Wear full head and neck protection to enter the patient's room	Disposable means single use See: HPS PPE advice

	Low Possibility of VHF	High Possibility of VHF	Confirmed VHF	Comments
PPE: To cover face, including mucous membranes of the eyes, mouth and respiratory tract	Full face visor or half-face visor with fluid repellent surgical face mask if splash risk possible from blood or body fluids	If no bleeding/bruising or D&V Fluid repellent surgical face mask with compatible eye protection (goggles or visor) Otherwise include FFP3 to enter room	FFP3 respirator & compatible eye protection (goggles or visor) to enter room	See: HPS PPE advice
PPE: Feet	As per dress code	If no bleeding/bruising or D&V wear footwear as per dress code. Otherwise: Wellington style boots and or over boots (if shoe contamination possible)	Wellington style boots and or overboots to enter room	Overboots are single use disposable Wellington style boots are single healthcare worker use (HCW) See: HPS PPE advice Agree safe between use storage
Aerosol Generating Procedures (as listed in the National Infection Prevention and control manual) NB also for any procedure, e.g. Central Line Insertion which may generate an droplet	FFP3 respirator & compatible eye protection	FFP3 & Eye protection to enter room	FFP3 & Eye protection to enter room	
Equipment	Single Use (B/P, wash bowl, thermometer) Keep supplies out of the room Use needle safety devices where possible DO NOT remove equipment from the room without permission of IPCT	Single Use (B/P, wash bowl, thermometer) Keep supplies out of the room Use needle safety devices where possible DO NOT remove equipment from the room without permission of IPCT	Single Use (B/P, wash bowl, thermometer) Keep supplies out of the room Use needle safety devices where possible DO NOT remove equipment from the room without permission of IPCT	Make sure the equipment is required before placing in the room
Specimens required	Malaria screen urgent FBC, U&E, LFTs Glucose, CRP, coagulation studies, urine culture, stool culture and blood cultures CXR (within the X ray department)	Do not take specimens without discussion with ID physician Urgent VHF testing Urgent Malaria screen FBC, U&E, LFTs Glucose, CRP, coagulation studies, culture and blood cultures	Patient under the care of the ID physician	
Process / transport of specimens	It is not necessary to notify lab in advance of sending specimens Standard transport (sealed container)	Notify lab in advance of sending specimens CL2 No vacuum transport of specimens	Notify lab in advance of sending specimens Can be CL2 with permission / additional procedures No vacuum transport of specimens	See P60 for additional precautions
Healthcare waste	As per SICPs Orange bag (Category B waste)	Double Yellow bag Category A waste (autoclave/incinerate) Hold waste in patient's room until VHF status is known	Double yellow bag Category A waste (autoclave/incinerate) Hold in safe area until transport available to incinerate/ autoclave	Each NHS board should have an agreement in place for disposal of Category A waste Involve Estates early if required See Appendix 7 for Lab waste procedures waste
Laundry (bed linen, towels)	As per SICPs	Disposable (Category A waste autoclave/incinerate) (reusable treat as disposable)	Disposable (Category A waste autoclave/incinerate) (reusable treat as disposable)	
Crockery & Cutlery	No special requirements	Disposable (Category A waste)	Disposable (Category A waste)	
Toileting facilities	As per SICPs	Patient may use a toilet Commode / bedpan: solidify contents – (Category A waste autoclave/incinerate)	Patient may use a toilet Commode / bedpan: solidify contents – (Category A waste autoclave/incinerate)	P73 combines the 2 for toilet cleaning
Disinfection of toilets and commodes	As per SICPs	10,000 parts per million available chlorine (ppm av cl) after each use	10,000 ppm av cl after each use	Leave decontaminated equipment within the area until fumigation process complete

	Low Possibility of VHF	High Possibility of VHF	Confirmed VHF	Comments
Spills of blood or body fluids	As per SICPs Appendix 11 for decontamination of blood and body fluid spills Blood 10,000 ppm av cl Contact time 3 minutes Urine – solidify then discard as Category A waste. Use 10,000 ppm av cl for 3 minutes contact time to disinfect area Use Fluid repellent gown or coverall with Use wellington boots/overboots for large spills	As per SICPs Appendix 11 for decontamination of blood and body fluid spills Blood 10,000 ppm av cl Contact time 3 minutes Urine – solidify then discard as Category A waste. Use 10,000 ppm av cl for 3 minutes contact time to disinfect area Use Fluid repellent gown or coverall with scrubs worn underneath Use wellington boots/overboots for large spills	As per SICPs Appendix 11 for decontamination of blood and body fluid spills Blood 10,000 ppm av cl Contact time 3 minutes Urine – solidify then discard as Category A waste. Use 10,000 ppm av cl for 3 minutes contact time to disinfect area Use Fluid repellent gown or coverall with scrubs worn underneath Use wellington boots/overboots for large spills	NB low risk VHF patients become high-risk of VHF if bleeding or body fluid spills occur
Notification	Inform ICD, ID physician& notify CPHM	Inform ICD and ID physician Notify CPHM, HPS Notify a HLIU concerning patient management and possible early transfer	Inform ICD and ID physician Notify CPHM, HPS Notify a HLIU concerning patient management and transfer HPS to notify SGHSCD and PHE for onward communication to ECDC	ICD - Infection Control Doctor ID - Infections Disease physician CPHM – Consultant in Public Health Medicine HPS – Health Protection Scotland SGHSCD – Scottish Government Health and Social Care Directorate PHE – Public Health England ECDC European Centres for Disease Control
Hospital Infection Incident Assessment Tool (HIIAT)	Amber	Red	Red	
Form an Incident Management Team	IPCT & CPHM	Full IPCT, CPHM, HPS, Pharmacy, Management, Estates	Full IPCT, CPHM, HPS, Pharmacy, Management, Estates	IPCT – Infection Prevention and Control Team
Ongoing patient assessments	Monitor for bleeding, bruising and for diarrhoea and or vomiting – if symptoms appear move to High Risk category Monitor temperature. If malaria negative and patient remains pyrexial and no other diagnosis, then discuss with ID physician	If malaria negative and patient pyrexial and no other diagnosis, then discuss with HLIU		
Room decontamination	Decontaminate room with 1000 ppm av cl following discharge / transferred as per National Infection Prevention and Control Manual	Decontaminate room with 1000 ppm av cl following discharge/ transferas per National Infection Prevention and Control Manual Full fumigation of the patient's room if VHF confirmed	Full fumigation of the patient's room	NB it will need to be confirmed that fumigation has been successful before the room can be reused. This may take several days.
Stand Down – when precautions can be discontinued	Consultant Microbiologist / ID physician confirms safe to stand down, e.g. the patient is • VHF negative • responding to treatment for an alternative diagnosis • Apyrexial for 24 hours	Consultant Microbiologist / ID physician confirms it is safe to stand down, e.g. the patient is • VHF negative • responding to treatment for an alternative diagnosis • Apyrexial for 24 hours (discuss with Imported Fever Service for other diagnosis)	On patient discharge/death	

	Low Possibility of VHF	High Possibility of VHF	Confirmed VHF	Comments
Staff exposure	Procedure as per SICPs Provide reassurance and confirm when stand down that exposure was not to VHF.	Procedure as per SICPs Provide reassurance and confirm when stand down that exposure was not to VHF.	Procedure as per SICPs full support to staff and patient family throughout incubation period.	
Staff support	Don't forget • All cuts and abrasions must be covered. If this is not possible seek advice on safety to enter patient's rooms • All blood and body fluid is potentially contaminated – use PPE to prevent direct contact with blood or any body fluid. Prevention / Management • Ensure sufficient supplies of appropriately fitting PPE to the relevant specifications are available. • Ensure sufficient staff are face fit tested and FFP3 respirators are available if required for any AGP Staff who care for these patients must know about VHF: • That the virus is present in blood and body fluids including urine, on contaminated instruments and equipment, in waste on contaminated clothing (including PPE) and contaminated surfaces. • Mode of transmission is through direct contact: exposure of broken skin or mucous membranes to blood and / or other body fluids when touching or when aerosolising / splashing of blood / body fluids occur. (It is not airborne). • Indirect transmission via broken skin contact with mucous membranes or broken skin and contaminated equipment / surfaces. • NB risk is highest during the later stages of illness when vomiting, diarrhoea and often haemorrhage may lead to splash and droplet generation.			

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Riaghaltas na h-Alba

Gateway Review

PROJECT:New South Glasgow Hospitals

Gateway Review 4
(Readiness for Service)

Report Status:	Final
Date/s of Review:	31/03/2015 to 02/04/2015
Draft Report Issued to SRO:	02/04/2015
Final Report Issued to SRO & Copied to PPM-CoE:	07/04/2015
Delivery Confidence Assessment:	Green
Senior Responsible Owner:	David Loudon
Scottish Government's Accountable Officer:	
Organisation's Accountable Officer: (where appropriate)	

Contents

1. Background

1.1 Aims of the Project

1.1.1 The South Glasgow University HospitalCampus project is the largest NHS project currently underway in the UK. It involves the co-location and reconfiguration of Acute Services onto the Southern General Hospital site. The project is one of the key vehicles for the delivery of the Greater Glasgow and Clyde Acute Services Strategy. The project sets out to deliver the following:

- Provision of a New Adult & Children's Hospital complex which will be state of the art in all aspects of its design, construction and operation and puts in place the renewal of another part of Glasgow's acute healthcare facilities;
- Meets a major element of service provision through implementing the next stage of ASR;
- Provides radically redesigned clinical services to meet the needs of the local and wider Scottish population;
- Public, staff and other agencies involved in developing design;
- Achieves greater clinical adjacencies and co-locations within and between Adult Acute & Children's Acute Services;
- Provides greater value for money than compared to the present service configuration;
- Will improve recruitment of all types of staff;
- Puts patients at the heart of service planning;
- Will operate in conjunction with new hospitals at Stobhill and Victoria, in addition to the 2 other inpatient sites in Glasgow.

1.2 Driving Force for the Project

1.2.1 NHS Greater Glasgow approved the Acute Services Strategy (ASS) to modernise services across the city in 2002. Ministerial approval was received in August 2002. The strategy is underpinned by extensive consultation with local communities and planning partners, locally and nationally, and identifies the future reconfiguration of services in Greater Glasgow - requiring investment capital of some £900 million overall.

1.2.2 The strategy is based on retaining three adult in-patient hospitals at Southern General Hospital, Glasgow Royal Infirmary and Gartnavel General Hospital, supported by two new hospitals at Stobhill Hospital and the Victoria Infirmary.

1.3 Procurement/Delivery Status

1.3.1 Following approval of the Final Business Case (FBC) in late 2010, the project team ran a highly successful competitive dialogue procurement. Contractors were appointed and following a construction period the Board took handover of the building in January 2015, five weeks ahead of schedule. Following a period of commissioning, the project is now preparing to start migration in late April.

1.4 **Current Position Regarding Gateway Reviews**

1.4.1 This is the fourth review of the project. A Gateway 1 Business Justification review was carried out in January 2008, a Gateway 2, Delivery Strategy review was carried out in January 2009, and a Gateway 3, Investment Decision review was carried out in October 2010.

2. Purpose and Conduct of the Review

2.1 **Purpose of the Review**

2.1.1 Gateway Review 4: Readiness for service. This Review investigates the organisation's readiness to make the transition from the specification/solution to implementation; where appropriate it will assess the capabilities of delivery partners and service providers. The Review also confirms that ownership of the project is clearly identified after handover to operational services.

2.1.2 A full definition of the purpose of a Gateway Review 4 is attached for information at **Appendix A**.

2.1.3 This report is an evidence-based snapshot of the project's status at the time of the review. It reflects the views of the independent review team, based on information evaluated over a three day period, and is delivered to the SRO immediately at the conclusion of the review.

2.2 **Conduct of the Review**

2.2.1 The Gateway Review 4 was carried out from31/03/2015 to 02/04/2015in the new hospital building.

2.2.2 The Review Team members and the people interviewed are listed in **Appendix C**.

2.2.3 The Review Team would like to thank the SRO, the New South Glasgow Hospitals project team and all interviewees for their support and openness, which contributed to the Review Team's understanding of the project and the outcome of this review.

3. Gateway Review Conclusion

3.1 **Delivery Confidence Assessment.**The Review Team finds thatthe project has built on the successful procurement by developing a valuable and productive partnership with the contractor using the NEC3 form of contract.The good relationship has served them well throughout the construction phase and an effective change control process has contributed to the delivery of a fit for purpose building five weeks early and on budget. A continual process of migration planning and staff familiarisation has accompanied the construction activity. The small project team has achieved a high degree of continuity in key roles over a number of years and the team displays a deep knowledge and understanding of the building and the plan for occupation. The overall delivery confidence assessment is **Green.**

The Delivery Confidence assessment RAG status should use the definitions below.

RAG	Criteria Description
Green	Successful delivery of the project/programme to time, cost and quality appears highly likely and there are no major outstanding issues that at this stage appear to threaten delivery significantly
Amber/Green	Successful delivery appears probable however constant attention will be needed to ensure risks do not materialise into major issues threatening delivery
Amber	Successful delivery appears feasible but significant issues already exist requiring management attention. These appear resolvable at this stage and if addressed promptly, should not present a cost/schedule overrun
Amber/Red	Successful delivery of the project/programme is in doubt with major risks or issues apparent in a number of key areas. Urgent action is needed to ensure these are addressed, and whether resolution is feasible
Red	Successful delivery of the project/programme appears to be unachievable. There are major issues on project/programme definition, schedule, budget required quality or benefits delivery, which at this stage do not appear to be manageable or resolvable. The Project/Programme may need re-baselining and/or overall viability re-assessed

3.2 The levels of success achieved at each key stage of the project to date, combined with itsunique scale make it an essential candidate for further study.There are lessons to be learnt and shared with projects of all scale from all stages of the project to date and it is important that the critical success factors of the project are identified and understood and broughtto a wide audience.

3.3 A summary of the Report Recommendations is available at **Appendix B**.The Scottish Government is committed to learning lessons from programme and project delivery. To facilitate this, the recommendations from this report have been categorised to align with the Scottish Governments PPM Principles. The SG's PPM Principles are listed at Appendix D. This allows the SG's PPM-CoE to analyse lessons across various reviews and present them in non-attributable reports.

4. Findings and Recommendations

4.1 Business caseand stakeholders

4.1.1 The project achieved approval for its Final Business Case in October 2010 and this document has provided a firm foundation for the procurement, construction and operational phases of the project. This review has taken place in the final three weeks before migration to the new hospitals and interviewees described a picture of detailed planning, rehearsal and communication.

4.1.2 The project team is to be commended on achieving handover of the building from the contractor five weeks early and on budget in January 2015.

4.1.3 The level of clinical engagement from design development through to migrationplanning has been significant. The review team was impressed by the structure and process of engagement, which included the designation of Service Transfer Owners (STO) covering 128 Service Areas and over 70 user groups. The STO's have worked with the project team to develop detailed migration workbooks over a two-year period, and these are being used as guides for each Service Area.

The project has enjoyed a significant level of continuity in a number of roles, in the project team, Board management structure and in the stakeholder community. We see this has having a major impact on successful delivery.

4.1.4 Interviewees reflected that the highly inclusive process of design developmenthas led to the construction of facilities that will meet the clinical and legislative requirements of a modern hospital. The review team experienced a real level of enthusiasm for transferring to the new facilities and foradopting new ways of working.

4.1.5 The Board's capital financial management approach has been able to manage the scale of the project effectivelyin addition to theother capital projects being run by the Board. The size of the project represents a large proportion of the national health capital spend, which has led to an understandable increase in the level of scrutiny from the Scottish Government Health Department.

Recommendations:

None.

4.2 **Risk Management**

4.2.1 The project has dealt with a number of requests for change through the period of construction that have been managed through a clear change control process.Consistent application of the change control process effectively limited the number of changes that were agreed and contributed to budgetary control.

4.2.2 The review team heard from the contractor (Brookfield Multiplex) that the phasing of the project had contributed to its success. The early construction of the laboratory building gave the project team and contractor time to learn how to work together using the NEC3 contract and develop effective partnership working. The project team defined a 'no surprises' culture, and used a process of early warning to ensure visibility of any issues at the earliest opportunity.

4.2.3 The project team has adopted a very effective risk mitigation approach throughout the life of the project. Despite the comprehensive approach to migration planning, the project team recognises that in a move of this scale and clinical complexity, there will be numerous issues to be dealt with in the early stages of occupation. The project team is prepared to manage these issues as they arise.

Recommendations:

None.

4.3 **Review of current phase**

4.3.1 The staff orientation process started early in the construction phase with opportunities to walk round the developing structure and has continued with all staff visiting regularly as the date of occupation approaches. One example of orientation

activity is Senior Charge Nurses carrying out a comprehensive scenario exercise in a mock ward within the new hospital.

4.3.2 While new ways of working are developed for the new hospitals, care is being taken to implement practices in the same way in all Board sites. Where these new clinical and service models (and equipment) have been developed ahead of migration, they have been implemented on existing sites, reducing the level of change involved in the move. Some departments, including Imaging, have carried out early occupation and are already working from the new facility. In the days following this review, 30 members of the public will act as patients and test signage and patient management.

4.3.3 Consideration has been given to the management of issues and opportunities post-occupation – both immediate fault management and longer term changes to ways of working or the fabric and equipment of the building. The project team should now define and communicate a consistent approach to issue management for all building users. This will help to reduce pre-migration anxiety and lead to more effective management of changes to the building.

Recommendations:

1. **The project team should define and widely communicate a consistent approach to issue management to all users. Critical**

2. **The project team should capture the lessons of the construction, migration planning and occupation phases. Essential**

4.4 Readiness for next phase – Operations review and benefits realisation

4.4.1 This report has been completed for the SRO –Project Director and Director of FM and Capital Planning across the Board area –who is responsible for delivery of thebuilding. Thereafter, ultimate responsibility for the delivery of the benefits identified in the business case will become a task for operational leadership. At the time of this review, the Board was in the process of implementing a revised management structure. While the timing of this so close to migration is not ideal, it is expected to provide clearer site leadership.

4.4.2 From documentation and the interviews we have held, we see the need for greater focus on the full realisation of benefits through an appropriately sized structure with responsibility for delivery ofthe business case.

4.4.3 The complexity of building systems is such that Brookfield-Multiplex are contracted tokeeping their Commissioning Manager in place for two-years to ensure effective knowledge transfer in the use and maintenance of the systems. The project team has recognised the risks associated with taking ownership of such complex systems and has made appropriate provision for training and support.

4.4.4 This review has taken place in the run up to a Westminster election, and only a year ahead of a Holyrood election. Health is a key election battle-ground for many

political parties. As the largest health project in the UK, the new hospitals present a highly visible target for politicians. The review team would encourage the Greater Glasgow and Clyde Health Board to maintain its approach to providing services in the best interest of the public.

Recommendations:

3. **The Board should establish clear responsibility for benefits realisation. Essential**

4. **The Board should commission a detailed case study of all phases of this project as avehicle for knowledge sharing. Essential**

5. Previous Gateway Review Recommendations

5.1 The project's strong focus on delivery issues, has limited its response to certain recommendations of the previous review.

6. Next Gateway Review

The next Gateway Review Gate 5 Benefits Realisation is expected in June 2016.

7. Distribution of the Gateway Review Report

7.1 The contents of this report are confidential to the SRO and their representative/s. It is for the SRO to consider when and to whom they wish to make the report (or part thereof) available, and whether they would wish to be consulted before recipients of the report share its contents (or part thereof) with others.

7.2 The Review Team Members will not retain copies of the report nor discuss its content or conclusions with others.

7.3 A copy of the report is lodged with the Scottish Government's Centre of Expertise Programme and Project Management(PPM-CoE) so that it can identify and share the generic lessons learned from Gateway Reviews. The PPM-CoE will copy a summary of the report recommendations to the Scottish Government's Accountable Officer, and where appropriate, to the Organisation's Accountable Officer where the review has been conducted on behalf of one of the Scottish Government's Agencies, NDPBs or Health Sector organisations.

7.4 The PPM-CoE will copy a summary of the report recommendations to the Scottish Government's Accountable Officer, and where appropriate, to the Organisation's Accountable Officer where the review has been conducted on behalf

of one of the Scottish Government's Agencies, NDPBs or Health Sector organisations.

7.5 The PPM-CoE will provide a copy of the report to Review Team Members involved in any subsequent review as part of the preparatory documentation needed for Planning Meetings.

7.6 Any other request for copies of the Gateway Report will be directed to the SRO.

Appendix A -Purpose of a Gateway Review 4:Readiness for Service

- Check that the current phase of the contract is properly completed and documentation completed
- Ensure that the contractual arrangements are up-to-date
- Check that the Business Case is still valid and unaffected by internal and external events or changes
- Check that the original projected business benefit is likely to be achieved
- Ensure that there are processes and procedures to ensure long-term success of the project
- Confirm that all necessary testing is done (e.g. commissioning of buildings, business integration and user acceptance testing) to the client's satisfaction and that the client is ready to approve implementation
- Check that there are feasible and tested business contingency, continuity and/or reversion arrangements
- Ensure that all ongoing risks and issues are being managed effectively and do not threaten implementation
- Evaluate the risk of proceeding with the implementation where there are any unresolved issues
- Confirm the business has the necessary resources and that it is ready to implement the services and the business change
- Confirm that the client and supplier implementation plans are still achievable
- Confirm that there are management and organisational controls to manage the project through implementation and operation
- Confirm that contract management arrangements are in place to manage the operational phase of the contract
- Confirm arrangements for handover of the project from the SRO to the operational business owner
- Confirm that all parties have agreed plans for training, communication, rollout, production release and support as required
- Confirm that all parties have agreed plans for managing risk
- Confirm that there are client-side plans for managing the working relationship, with reporting arrangements at appropriate levels in the organisation, reciprocated on the supplier side
- Confirm information assurance accreditation/certification
- Confirm that defects or incomplete works are identified and recorded
- Check that lessons for future projects are identified and recorded
- Evaluation of actions taken to implement recommendations made in any earlier assessment of deliverability.

Appendix B - Summary of Recommendations

Ref No.	Report Section	Recommendation	Status (C.E.R.)	Aligns with SG PPM Principle No.(s)	Action Plan*
R1	4.3	The project team should define and widely communicate a consistent approach to issue management to all users.	C	6	
R2	4.3	The project team should capture the lessons of the construction, migration planning and occupation phases.	E	10	
R4	4.4	The Board should establish clear responsibility for benefits realisation.	E	2	
R5	4.4	The Board should commission a detailed case study of all phases of this project as a vehicle for knowledge sharing.	E	10	

Each recommendation has been given Critical, Essential or Recommended status. The definition of each status is as follows:

CRITICAL - Critical for immediate action, i.e. to achieve success the project should take action immediately to address the following recommendations:

ESSENTIAL - Critical before next Review, i.e. the project should go forward with actions on the following recommendations to be carried out before the next Gateway Review of the project:

RECOMMENDED - Potential Improvements, i.e. the project is on target to succeed but may benefit from uptake of the following recommendations.

Each recommendation has been aligned with one (or more) of the Scottish Government's PPM Principles (Appendix D list the principles)

***ACTION PLAN** - You must within three weeks of the final Report update Appendix B with your intended actions for addressing each recommendation. You should then share it with the relevant SG Accountable Officer and copy it to the PPM-CoE. Thereafter you are responsible for implementing the actions in response to the recommendations and for further circulation of the report as necessary. If the review has identified serious deficiencies or difficulties (including probable failure to meet the planned budget) within the project the Accountable Officer should inform the relevant Minister/s.

Appendix C - Review Team and Interviewees

Review Team:

Review Team Leader:	William Harrod
Review Team Members:	Bert Niven
	Robert Peat

List of Interviewees:

Name	Organisation/Role
Robert Calderwood	Chief Executive
David Loudon	SRO
Kevin Hill	Director of Women's and Children's Services
John Crawford	Consultant Anaesthetist
Anne Harkness	Director South Glasgow Sector
David Stewart	Lead Director for Acute Medical Services
Niall McGrogan & Mark McAllister	Head of Community Engagement & Transport, Community Engagement Manager
Peter Moir	Deputy Project Director
Alan McCubbin	Head of Finance Capital & Planning
Fiona McCluskey	Senior Nurse Advisor
Mairi Macleod	Project Manager – Children's Hospital
Karen Connelly	FM Advisor
Heather Griffin	Project Manager – Adult Hospital
Alasdair Fernie	Brookfield Multiplex Project Director
Morag Busby	Senior Charge Nurse

Appendix D- Scottish Government - Programme and Project Management Principles

1. *Governance*.
   - Our approach to managing programmes and projects is proportionate, effective and consistent with recognised good practice.

2. *Business case.*
   - We secure a mandate for our work; identify, record and evaluate our objectives and options for meeting them; and ensure that we secure and maintain management commitment to our selected approach.

3. *Roles and responsibilities.*
   - We assign clear roles and responsibilities to appropriately skilled and experienced people and ensure their levels of delegated authority are clearly defined.

4. *Benefits*.
   - We record the benefits we seek, draw up a plan to deliver them and evaluate our success.

5. *Risk.*
   - We identify, understand, record and manage risks that could affect the delivery of benefits.

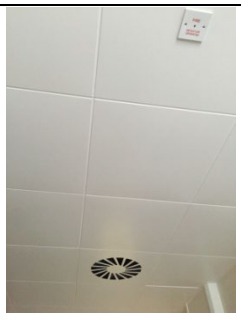
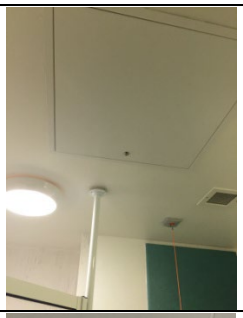
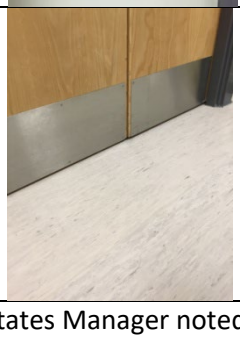
6. *Planning.*
   - We develop a plan showing when our objectives will be met and the steps towards achieving them, including appropriate assurance and review activities, and re-plan as necessary.

7. *Resource management.*
   - We identify the financial and other resources, inside and outside the organisation, required to meet our objectives.

8. *Stakeholders.*
   - We identify those affected by our work and engage them throughout the process from planning to delivery.

9. *Closure.*
   - We ensure that the transition to business as usual maximises benefits and that operational delivery is efficient and effective.

10. *Lessons learned.*
   - We record lessons from our programmes and projects and share them with others so they may learn from our experience.

BEATSON ONCOLOGY – BMT WARD LEVEL 4	13 July 2015
	**SINGLE BEDROOM** Metal tile with suspension grid above tile, all edges sealed with silicone. Regular access above tiles is not required. Light fittings recessed with sealed diffuser, bulb replacement from room. Heating tempered air supply from plant room above, maintenance in plant area.
	**EN-SUITE** Plasterboard ceiling with access hatch to air con. Demountable IPS panels sealed to support structure.
	ROOM PRESSURE SENSOR
	**ROOM PRESSURE GUAGES** During visit little or no door opening noted, gauges recoding in range from 3.9 to 9.9, pressure dropped on opening door but returned to previous reading within 10-15 seconds.
	**MAIN ACCESS DOOR** Rubber seal all round door frame, as per QEUH, no seal visible on meeting style, nor along base of door. Gap at floor around 8-10mm. No air balancing flaps noted in corridor wall.
Estates Manager noted minimal requirement for access to ceiling space in single bedroom, if required, cut silicone around tile and reseal after repositioning. Bulk of access is at plant room level or in en-suite to water services in IPS. Further detail on HEPA change arrangement to be provided.	

New Southern General Hospitals

Project Manager Instruction #4455

Status: Accepted

Notification

Raised By

GGC01.NSGLP.pmoir on 28 Aug 2015 4:40PM

Raised To

BCL01

Response Required By

11 Sep 2015 12:00AM

Title

PMI 436 ADULT HOSPITAL LEVEL 4 WARD B HAEMATO ONCOLOGY - AIR PERMEABILITY TEST

Description

Proceed and undertake air permeability tests to 24 rooms and en suites in this ward and provide formal report prior to final handover to Board. Please provide cost for same.

Instruction

Proceed and undertake air permeability tests to 24 rooms and en suites in this ward and provide formal report prior to final handover to Board. Please provide cost for same.

Documents

Document Name

PMI 436- BMCE Quote.pdf

Description

BMCE-PMI 436-QUOTE

File Type

application/pdf

Uploaded

On 15 Sep 2015 by BCL01.NSGLP.leighj

New Southern General Hospitals

Compensation Event #16610

Status: Closed

Notification

Notified By

GGC01.NSGLP.pmoir on 28 Aug 2015

Notified To

BCL01

Proposed Compensation Event?

No

Under Dispute?

No

Type

60.1(1)-Change to the Works Information

Title

CE 142 ADULT HOSPITAL LEVEL 4 WARD B - HAEMATO ONCOLOGY - DIGITAL GAUGES

Description

Please proceed and install digital room pressure gauges in 24No single bedrooms as part of the current adaptations to ward. Digital gauges to be provided with alarm that sounds once room pressure drops below 5 pascals for 5 minutes, alarm can sound at room or at a central location. All as priced under PMI 430. NOTE PMI 430 REFERS MAGNAHELIC GAUGES CONFIRM THESE HAVE DIGITAL READ OUT AND ALARM BEFORE PROCEEDING.

Linked to PMI

4174 - PMI 430 QEUH HAEMATO ONCOLOGY WARD LEVEL 4 - 24 SINGLE ROOMS PRESSURE GAUGES

Reply By

18 Sep 2015

Decision

Request to submit quotation

Quotation Request Assumptions

Agreed cost [redacted] incl OH+P but excl VAT.

Quotation #1

Proposed Cost

[redacted]

Accepted Programme affected?

No

Delay to the Completion Date?

No

Delay to a Key Date?

No

Alteration to Accepted Programme?

No

Quote Response Assumption

N/A

Reply By

23 Sep 2015

Outcome

An acceptance of a quotation

Outcome Comments

N/A

Outcome Submitted By

GGC01.NSGLP.sfrew on 9 Sep 2015

Assessment / Implementation

Proposed Changes to Price

[redacted]

Proposed Changes to Completion Date

N/A

PM Agreed Changes to Price

[redacted]

PM Agreed Changes to Completion Date

Assessment Made By

GGC01.NSGLP.sfrew on 9 Sep 2015

Bone Marrow Transplant Unit – Ventilation specification

Agreed Option	Corridor should be HEPA filtered (HPS, CDC) Bathrooms should be fully sealed (HPS, CDC) Room pressures **2.5 -8 PA** (CDC) ACH **6/hr** (Peter Hoffman, PHE) Air Change in prep room **6/hr** Entrance to ward to be air locked using double door at front entrance. Exit door (beside room 76) to be sealed and only used as fire exit.

Guidance consulted

SHTM 03-01 2013
HPS SBAR for BMTU 2015
CDC Guidelines for Environmental Infection Control 2003

JACIE standards 2015, BSH standards 2009 and NICE Haematological cancers ; improving outcomes, draft consultation 2016 were also consulted but do not provide details on ventilation specification for BMTUs.

Specification Agreed by

Dr T Inkster
Dr G McQuaker
Dr A Parker
Dr I Novitzky-Basso
A McArdle
M Campbell
M McColgan

At meeting held Friday 4th March, 2016.

Patient pathways for possible or proven MERS Co-V and smear positive pulmonary Tuberculosis referred to Infectious Diseases.

There has been an independent engineering review of the positive pressure ventilated lobbied (PPVL) isolation rooms on 1st floor in QEUH. The ideal for air exchange rates for tuberculosis is 12 air changes per hour (ACH) but 6 is acceptable. It is likely that these rooms are within this range but it is not definitively known. The "normal" ward rooms have 3 ACH with the door closed. If full PPE including FFP3 masks are used there is not thought to be a significant risk to staff or the patients housed within the PPVL rooms but it is not clear where the ventilated air is going.

There has been a meeting between consultants in Infectious Diseases, Infection Control and Respiratory from GRI regarding an interim measure for managing these patients while further engineering expertise is sought(an initial report is being reviewed by estates). The objectives are to provide high quality care for patient with infection and minimise any risk to staff or other patients.

The following clinical scenarios have been considered

Pulmonary tuberculosis-likely or proven smear positive

This should be managed in ward 5D with the door shut. **All staff** entering the room should wear FFP3 masks. Aerosol generating procedures should be minimised but if required staff and relatives should avoid entering the room wherever possible for **2 hours** after (NB "Induced sputum" is an AGP but not routine nebulisers).

Proven pulmonary MDR-TB

This should be managed in the negative pressure rooms in GRI under the respiratory physicians. There is not 24 hour on call respiratory so transfer of the patient out of hours will require discussion with the on call physician (who may be a resp physician) and the patient should be transferred wearing a surgical mask at the earliest opportunity.

Pulmonary tuberculosis with risk factors for MDR-TB

It is currently felt that the PPVL rooms on 1st floor will be superior to our "normal" rooms and should be used if the patient is smear or likely to be smear positive and has risks for MDR-TB. Every effort should be made to get the resistance probe result at the earliest opportunity. The doors must always be kept shut. FFP3 masks should be used for everyone entering the room.

Assessment for MERS-CoV

The current management and patient pathways for MERS-CoV will continue. Most of the possible cases will have a common respiratory pathogen e.g. influenza. If the ID physician is aware of a case of **very high** probability from the community or a hospital other than QEUH then they should discuss the case with the on-call ID physician in Monklands and consider transfer directly to their negative pressure facility.

E.G. fulfilling current MERS CoV probably case and

- clear history of direct contact with a case of MERS

- hospitalisation in Saudi Arabia(given the current epidemiology as per 2016-Q1 2017)
- clear contact with dromedaries

Other rare high risk pathogens will need to be reviewed on a case by case basis e.g. measles, avian ‘flu etc

	DESIGN REVIEW EVALUATION NOTES – WALLACE WHITTLE			Bidder Ref	BROOKFIELD EUROPE
	ITPD Evaluation	**Individual**	**Technical**	**Score**	**Commentary**
	Criteria	**Weighting**	**Weighting**		
	Design				
DBH	Main incoming utilities design / connection strategy including Schematic for Main Services distribution from Energy Centre to Main Hospital Building – tunnel cross sections and 1:200 Energy Centre Services	5	**30**	**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.18 - 8.1.15 - 8.1.16 - 8.1.19 - 8.1.23 - 8.3.5.14 - 8.3.9 - 9.18 - 9.5 - 9.7.5), drawings and appendices* Evaluation Notes: Electrical input estimated at 1MVA above ER's due to footprint. Incoming utilities as ER's with request for MPG rather than SGN proposed LPG. Updated quotation required for gas to suit retained estate loads Services all run in common trench no services tunnel AGV tunnel width appears tight. 150mm water main pipe may require to be up-rated
DBH	Water Services Strategy including Hot & Cold Water Services Schematic, Filtered Water Schematic and Renal Water Schematic	5	**30**	**4**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.28 - 8.29 - 8.2.10), drawings and appendices* Evaluation Notes: Water storage reduced to 12 hour All pipework stainless steel
DBH	Heating design strategy including MTHW Schematic & LTHW Schematic	5	**70**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2.7), drawings and appendices* Evaluation Notes: Two port control proposed in lieu of three port.
DBH	Ventilation & air treatment design strategy including Schematic drawings	10	**60**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2.11 - 5.6 - 5.10 - 8.2.13 - 8.2.14 - 8.2.15 - 8.2.21.2 - 8.2.22.2 - 8.2.20.0 - 8.3.36), drawings and appendices* Evaluation Notes: Two port control proposed in lieu of three port. Carbon filters included Active chilled beams with sealed windows for tower Thermal wheel heat exchangers will be incorporated within extract air plants handling uncontaminated air
DBH	Mains and Sub-mains power distribution design strategy including MV Power Schematic and LV Power	10	**50**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.16 - 8.1.21 - 8.3.2 - 8.3.31 8.1.1.13 - 8.1.12.5 - 8.3.30), drawings and appendices* Evaluation Notes: Dual-unified power distribution network proposed Engineering hub cabinets, 2KVA, 10 minute autonomy FM office engineering hub, to suit load, 1 hour autonomy BMS front end, to suit load, 1 hour autonomy BMS outstations, to suit load, 1 hour autonomy Generator/HV network control and monitoring system Central UPS for Server Rooms, 15 minutes autonomy Central UPS for IPS units, to suit load, 15 minutes autonomy, except for theatres 60 minutes

	DESIGN REVIEW EVALUATION NOTES – WALLACE WHITTLE			Bidder Ref	BROOKFIELD EUROPE
	ITPD Evaluation	**Individual**	**Technical**	**Score**	**Commentary**
	Criteria	**Weighting**	**Weighting**		
	Design				
DBH	Lighting design strategy	10	**60**	**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.3.3), drawings and appendices* Evaluation Notes: Basic standalone lighting controls proposed
DBH	Lift Engineering design strategy	10	**60**	**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.3.34, 7.12.4), drawings and appendices* Evaluation Notes: Lift analysis based on exemplar Machine room less lifts proposed rather than conventional FM Lift ratings not all provided 1.6 m/s speed proposed for tower
DBH	Communication design strategy	5	**25**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.3.5 - 8.3.6 - 8.3.7), drawings and appendices* Evaluation Notes: Back bone network included for FM Meshed Fibre included PA system included Audio induction loops included Patient entertainment system infrastructure included in doc (C&B to confirm costs are in the bid) Patient entertainment system wired in Cat 6 nit Cat 6A as main data cabling for future proofing and interchangeability of patch leads etc.
DBH	Protective systems design strategy including Sprinklers schematic and Fire alarm & damper controls Schematic	5	**30**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2.19-8.2.30-8.2.31-8.2.32-8.3.4-8.3.27-8.3.28), drawings and appendices* Evaluation Notes: CCTV system wired in Cat 6 (Option to be provided to fit CAT6A as main data cabling for future proofing and interchangeability of patch leads etc.) Personal attack system included Repeater panels only provided at certain staff bases (ER's call for text displays at all staff bases) Extinguishants system in two main comms rooms (Not details in sub-stations) Sprinkler Installation not pre-action type Wet risers provided

	DESIGN REVIEW EVALUATION NOTES – WALLACE WHITTLE			Bidder Ref	BROOKFIELD EUROPE
	ITPD Evaluation	**Individual**	**Technical**	**Score**	**Commentary**
	Criteria	**Weighting**	**Weighting**		
	Design				
DBH	Medical gases design strategy including schematic drawings	5	**30**	**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.22), drawings and appendices* Evaluation Notes: New compounds to be established (Location to be agreed)
DBH	Pneumatic tube system design strategy including schematic drawings	5	**30**	**7**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.31), drawings and appendices* Evaluation Notes: Pneumatic tube proposal is Swiss log text, ten zone 92 stations, System records last 20,000 transactions Requirements to be updated once layout specific requirements area available 22 Swiss log units proposed for Automated Handling units
DBH	Plant room design strategy	5	**25**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.1.3.10 - 8.1.4.2 - 8.1.5 - 8.3.32.2 - 8.3.36), drawings and appendices* Evaluation Notes: 4 hour Fire separation added in energy centre for resilience Ground Floor – oil storage for standby generators, boilers and retained site. First Floor – standby generators and 11kV switchgear Second floor – MTHW heating boilers and CHP units, absorption cooling plant Roof – main chillers and associated transformers, absorption chiller dry air coolers, wind turbines General air handling plant rooms well distributed .
DBH	Control systems including BMS schematic	5	**30**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including 8.2), drawings and appendices* Evaluation Notes: Open System Integration framework solution with transfer of information to and from certified field devices. This system for the hospital will be a software solution of two parts: The Integration of field systems The Graphical User Interface (GUI) Power Management System Overview The demand side will be dealt with via the Building Management System (BMS) and the supply side, consisting of on site generating capacity and also connected capacity from the national grid, be dealt with by the Power Management System (PMS).

	DESIGN REVIEW EVALUATION NOTES – WALLACE WHITTLE			Bidder Ref	BROOKFIELD EUROPE

	ITPD Evaluation	**Individual**	**Technical**	**Score**	**Commentary**
	Criteria	**Weighting**	**Weighting**		
	Design				
DBH	Helipad M&E services design strategy	5	**30**	**6**	*Reviewed Against* *Vol. 2/1 sect 8 (including), drawings and appendices* Evaluation Notes: Helipad M&E services appear to have been fully integrated, sealed windows for three floor, foam fire Extinguishants, link to cradles and alarms etc
DBH	Maintenance & major plant replacement strategy	35	**210**	**5**	*Reviewed Against* *Vol. 2/1 sect 8 (including), drawings and appendices* Evaluation Notes: The bidder has provided detailed drawings of the main plant rooms and has included aspects of the ER's Reliance on Heavy duty scaffolding for removal of heavy plant from upper floors of Energy Centre – this requires further development

bmj architects
Boswell Mitchell & Johnston

NHS Greater Glasgow and Clyde
1948-2008 60 years of the NHS

Bidder 1, Bookfield Europe				
		Positive Attribute	Design Proposals require investigation / consideration	Proposals Have Wider implications / Impact
•	**Design Compliance**			
	Brookfield have priced a fully compliant Laboratories Design based on the current design proposals, however the detail of this cannot be fully evaluated due to lack of provision of outline specification.	+		
	V13 Laboratories bid documentation is very biased toward variant options			
	No information has been provided on the compliant scheme relating to Architectural Specification, Structural or M&E		-	
•	**Variant Schemes (Options)**			
	Brookfield have provided 2 No Variant Proposals for consideration, Variant 1 explains the infrastructure alterations that Brookfield propose to deliver the employers requirements for the facility without the basement level and other alterations as deemed necessary by Brookfield. Variant 2 provides further enhancement to Variant 1 by relocating some M&E infrastructure to the energy centre with the aim that primary utilities will be provided for the Laboratories by the proposed energy centre.		-	Re-design & Planning Issues
	The following notes refer to the design, layout and servicing strategy for Brookfield Varaint 1 Scheme.			
	VARIANT SCHEME 1			
•	**Summary**			
	The Variant 1 scheme has made significant alterations to the design in order to bring a number of proposed enhancements to the scheme, these proposed enhancements are discused below		-	Re-design & Planning Issues
•	**Changes (Enhancements as described by Brookfield)**			
	BROOKFIELD ENHANCEMENT 1 - Repositioning of post Mortem Facilities to Ground Floor Level		-	
	Removes Requirement for the Basement Level and risks involved in creationg this level below ground	+		
	Saves Space overall	+		
	Layout will permit use of natural daylight though this will be very limited	+		
	Basement Tunnel Access System has been maintained to FM & the Waste Areas but not the PM Facilities, Acces to PM facilities is made through FM in a provided in an inappropriate location, I.e not through the body receiving area.		-	Re-design work needed
	Garage in external Courtyard		-	Re-design work needed
	Loss of 2 Dedicated police Parking spaces and remote from Police entrance to the facility		-	Re-design work needed
	Floor to Floor levels an location of clinical PM areas make it very difficult to incorporate an interstitial floor over required areas		-	Re-design work needed
	No plant areas immediately adjacent to PM Facilities will limit potential upgrade to CAT III status at a later date		-	Re-design work needed
	Long and convoluted route from body store to viewing rooms		-	Re-design work needed
	No single point of secure entry to body holding area		-	Re-design work needed
	Potential for natural light though requirement will be limited	+		
	Central corridor could be a security issue and could lead to confusion for visitors from outside		-	Re-design work needed
	No area Indicated for X Ray facilities		-	Re-design work needed
	Garage are remote from offices, management issue		-	Re-design work needed

	Potential to express chapel vertically	+		Re-design work needed
	Location of body Handling creates solid façade without windows along a large length of the Ground Floor		-	Consideration required
	Mortuary plan creates a 2 storey annex that is not now within the footprint of the building		-	Planning Issue
	Publicly accessible areas are immediately adjacent to the FM egress route from the courtyard which will be very busy, previously separated by the plant pod could be a safety issue		-	Consideration required
	Generally flows and adjacencies have not been maintained, the area could be replanned but requirements listed above could not all be fulfilled.		-	Functionality & Programme Issue
	BROOKFIELD ENHANCEMENT 2 - Rationalisation of M&E Plat to Alternative Configuration		-	
	The variants contain a number of strategy changes from the current design which have some fundamental issues which require resolution:-		-	
	1. Air Handling Units re-located to open roof above MicroBiology - the implication of this is that there will be internal Planning Issues to accommodate further mechanical risers, Downgrading of plant flexibility, FM issue re maintaining large rooftop plant, Impact of vertical air distribution ducts on floorplates, Potential risk associated with fume discharges and air inlets at roof level, as designed flue enclosures will need to be increased in height.		-	Functionality & Planning Issue
	2. Boilerplant options - Large plant items now over Level 0 impact on structure, FM issues re maintenance, Planning issues – Additional Flue now required, Potential risk associated with flue discharge and air inlets at roof level.		-	Functionality & Planning Issue
	Main plant areas are not within the building footprint, this will significantly limit flexibility		-	Functionality Issue
	The physical area of the floor plate that previously accomodated the vertical stacked plant pods has now been removed in all 3 locations. As a result the overall form of the building envelope is now considerably different		-	Functionality & Planning Issue
	BROOKFIELD ENHANCEMENT 3 - Extension of link from Main Block to Specialist Block to the Rear		-	
	Note: the reasoning behind this change is based on several CDM issues highlighted by Brookfield:			
	Issue 1, *Turning off Hardgate road into FM Area*			
	A full Design Team CDM review of this has been undertaken and slip road acces has been provided not off Hardgate road directly but off the proposed new road entering the site from Hardgate road, this access will be barriered and be managed with barriers and a dedicated FM service access manager. All traffic flows are based on a 1 way traffic system.			
	Issue 2. *Location of Gas Storage Area*			
	A full Design Team CDM review of this has been undertaken, the storage compound has been designed to be accessed from the rear of the compound off the FM service route and from within the building internally, Loading/parking for BOC/Air Products vehicles to the N2 storage area has also been provided in a secure location, no access is required off the FM service route.			
	This area can still be accessed from the lab floors above in the same manner as the designed scheme			
	Issue 3. *Access under Laboratory Building*			
	A full Design Team CDM review of this has been undertaken, the width of the route under the building has been set at 8.92M, this is much larger than the minimum width required to allow the passage of a rigid chassis goods vehicle, note that this will also allow access for a fully articulated vehicle if ever required. Further a space allocation has been made for heavy duty crash protection systems which have been designed in.			
	Issue 4. *Maintainance Issue with Narrow Access Zone*			
	No service or maintainance access is required off the FM service route other than to maintain external lighting.			
	Issue 5. *Structural Integrity of the Building Supports due to FM Traffic*			
	A full Design Team CDM review of this has been undertaken, A full vehicle sweep analysis has been developed and heavy duty crash protection systems have been designed in around colums adjacent to this route. Further column sizes have been substantially increased where minimal potential risk has been identified.			
	BROOKFIELD ENHANCEMENT 4 - Re-allignment of gas compound			

	A full Design Team CDM review of this has been undertaken, the storage compound has been designed to be accessed from the rear of the compound off the FM service route and from within the building internally, Loading/parking for BOC vehicles to the N2 storage area has also been provided in a secure location, no access is required off the FM service route.			
	Note: with Enhancements 3 & 4 the effect of relocating the rear block has a major effect on the adjacencies and required departmental relation ships on all floors above this:			
	Creates additional external perimeter subject to solar gain and requiring maintenance.		-	Consideration required
	Potential requirement for additional escape stair and lift.		-	Functionality & Cost Issue
	Break down of as designed building mass		-	Major Planning issue
	Additional link bridges required to service relocated rear block		-	
	Abortive design works to date		-	
	No goods lift in specialist lab block		-	
	Rationalisation of goods lifts in waste area now 2 No	+		
	No FM vehicle route under building	+		
	No racetrack corridor system to create ring corridor around the lab areas dissolves adjacencies and creates remote areas		-	Major Functionality Issue
	BROOKFIELD ENHANCEMENT 5 - Repositionong of Hard FM area to bespoke FM facility in the Energy Centre		-	
	Agrred with the Board in RFI 22			
	Reduced the extent of accomodation in the Laboratory building to make space available to relocate PM facilities to the ground floor as per **Enhancement 1.** This does not address any issues that may be raised on the design of the proposed FM facility within the Energy Centre, this forms part of the Main Hospital Design.			
	Some sensible accommodation removed to FM Centre in the Energy Centre	+		
	Reduces area available for the Energy Centre		-	
	No vehicle access provision all around the energy centre		-	Functionality Issue
	BROOKFIELD ENHANCEMENT 6 - Simplification of External Cladding			
	Outline specifications have not been provided for review however Priced Bills of Quantities may be able to shed light on priced specifications.		-	
	Following a review of the elevations provided External copper cladding has been replaced with a Polyester Powder Coated Aluminium product, Any change to cladding materials would be considered a material change by the Planning Authority and requre a minor amendment in its own right.		-	Planning issue
	VARIANT SCHEME 2			
•	**Summary**			
	The Variant 2 scheme maintains all of the significant alterations discussed above in Variant 1 with the added relocation of additional M&E to the energy centre following review of RFI 144			
	Boiler Plant Relocated to the Energy Centre, 1 No Run & 1 No Standby			Consideration Required
	Provision of 2 No Chiller Units in the Energy Centre			Consideration Required
	Additional Cost, this option will achieve the Carbon target of 80kgCO2/m2	+		
	Life Cycle Costing Improvement			
	Volume 13 P10 A statement is made that life cycle costing benefit of circa [redacted] identified due to rationalisation of plant and equipment. (This applies only to Variant Option 2) We are unaware of a detailed analysis to support this claim however it seems difficult to rationalise given that the proposal introduces larger and roof mounted plant with one would expect premiums on access equipment and component replacement. These comments equally apply to the boilerplant also mounted above ground level and larger units than that proposed.		-	Reliant on Energy Centre Construction
	One further consideration here is that the current design recognises the Energy Centre as the preferred Energy Provider this is in line with Bidder 1's proposals for their Variant 2 therefore again is difficult to identify how these benefits are being achieved.		-	Reliant on Energy Centre Construction

•	***GENERAL COMMENTS - New Planning Application Required for both Variants***			
	9 No Air Handling Plant Units to be located on the Roof of Microbiology, Roof plant areas now exposed		-	Planning Issue
	The proposals will require a complete new planning application with the 12 week consultation period prior to the 8-12 week consideration period, serious programme implication. Note that to aviod further risk to the planning process and GG&C, All re-design works must be completed prior to the planning application being made, estimate 8-12 Weeks (Overall 28-36 Week delay)		-	Planning & Programme Issue
	Clear building lines and facades around central park destroyed.		-	Planning Issue
	With Variant options 1 & 2 the functionality of the laboratories is reliant on the construction of the energy centre, note that the funds for the energy centre are tied to the main hospital, if for some reason the main hospital did no go ahead an energy centre to provide utilites for the laboratories will still be required at additional cost.		-	

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Bidder 1, Bookfield Europe				
•	**POTENTIAL CLARIFICATIONS REQUIRED**			
	Have Brookfield Priced a Fully Compliant Like for Like Tender for the Laboratories, can full details of this and specifications be provided			
	Is Brookfield able to achieve BREEAM Excellent on the fully compliant Scheme? (the documents seem to imply that they cannot achieve BREEAM Excellent on the compliant or variant 1 scheme, only variant 2 scheme will ensure BREEAM Excellent)			
	Is the proposed Novated Design Team for the Labs is required to be co-located with the hospital design team at the SGH Site			
	Can Brrokfield confirm that the base design achieves 80kgCO2/m2			

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Bidder 2, Laing O'Rouke				
		Positive Attribute	**Design Proposals require investigation / consideration**	**Proposals Have Wider implications / Impact**
•	**Design Compliance**			
	Laing O'Rouke have priced a version of the compliant Laboratories Design based on the current design proposals based on laing O'Roukes proposals to remove some FM areas to a dedicated FM facility in a separate building & **INFORMATION PROVIDED ON RFI 22**			
	Laing O'Rouke have removed the basement level and service tunnels and also some FM accomodation into a dedicated FM Building to allow the morturay to be located at Level 0. This Laing O'Rouke consider as being their Compliant			Consideration Required
	Though the basement level has been removed, Twin Combined service trenchs 1000mm below ground in soft from Energy Centre to Labs & Main Hospital have been included to allow passeage of M&E between facilities.			
	The following notes refer to the design, layout and servicing strategy for Laing O'Roukes own Scheme which has been put forward as compliant.			
	Overall lab Building mass layout and appearance remains unchanged, no requirement for new planning application	+		
•	**Variant Schemes (Options)**			
	None Provided			
•	**Changes**			
	Re-Locate Mortuary PM Facilities to Ground floor			Re-design work needed
	Re-Locate some Sensible FM Accommodation			
	Creation of Level 1 Link to main Hospital			Inappropriate connection with planning implication
•	**Repositioning of Mortuary Facilities to Level 0**			
	Scheme prepared on basis of outdated stage C layouts not stage D Layouts		-	Re-design work needed
	Saves Space generally	+		
	Garage is maintained within the building footprint	+		
	Loss of Dedicated police Parking spaces adjacent to Police entrance to the facility, this will require police with guests to walk along vehicle service route to front of building from the courtyard		-	Re-design work needed
	Bodies Arriving from the main hospital must be brought by vehicle as the elevated walkway does not provide required access.		-	Consideration required & Re-design work needed on Main Hospital
	Interstitial floor can potentially been maintained at level 0 over the PM areas due to inclusion of additional plant zone adjacent to this area	+		
	Long and convoluted route from body store to viewing rooms, no connection made available at present		-	Re-design work needed
	Potential for natural light though requirement will be limited	+		
	Central corridor could be a security issue and could lead to confusion for visitors from outside		-	Re-design work needed
	No Potential to express chapel vertically		-	
	No area Indicated for X Ray facilities		-	Re-design work needed
	Location of Body handling cuts off access to Hard FM area and is immediately adjacent to the main social area, this could be deemed inappropriate		-	Re-design work needed

	Location of body Handling creates solid façade without windows along a large length of the Ground Floor		-	Consideration required
	Large area of plant at ground floor level splitting the mortuary will require louvered skin this will be in taking and extracting air directly on the pedestrian route to the mortuary.		-	Consideration required
	Layout will permit use of natural daylight though this will be very limited	+		
	Generally flows and adjacencies have not been maintained, the area could be replanned but requirements listed above would be difficult to fulfill within the current envelope. (Re-design work estimate 6-8 Weeks minumum to achieve user sign off of ground floor)		-	Re-design work needed, Program Implication
•	**Repositioning of some FM areas to the FM facility, This does not address any issues that may be raised on the design of the proposed FM facility , this forms part of the Main Hospital Design.**			
	Some sensible accommodation removed to Planned FM Hub on Hardgate Road	+		
	Frees up space within the building footprint	+		
	Vast reduction in FM traffic passing through the courtyard	+		
	Move NDC & Hospital Waste areas To dedicated FM Building under 33kVa Car Park with Direct access from Hardgate Road, A secondary Waste Storage Area to be created in the ground floor of the labs to service waste from the Labs Only		-	
	No basement or underground tunnel access system		-	Consideration required
	AGV's used **- Compliant**	+		
	Pneu Matics systems - **Compliant.**	+		
	As tunnel system has been removed a elevated link bridge connects the Labs to the Main Hospital		-	
•	**Creation of Level 1 Link to main Hospital**			
	Link created above ground at level 1 provides pedestrian link to the main hospital, this link bridge connects in to a further link connecting the Children's hospital to the FM Building, the connection points offer no logic as the link comes into a secure area of the Blood Sciences floor plate thus compromising security to the whole facility on all floors, Due to its location the link cannot be used for transfer of bodies or stores between the buildings.		-	Inappropriate connection with planning implication
	The bridge will require to span a reasonably long distance and therefore require a means of escape further compromising security to the facility		-	Could be better placed, consideration required
•	**Other**			
	Change form Cast In-Situ Concrete Superstructure to Precast Columns and Floor Slabs could result in a risk to the program due to redesign works		-	Re-design work needed, Program Implication
	Specification, Generally No Deviation from Outline specifications other than the use of plasterboard for internal wall linings. In order to comply with requirements plasreboard will require additional layers of plywood to be incorporated within the wall buildup to provide load bearing capacity, this is a replacement for the as specified Fermacel board.		-	Unequal specification
•	**M&E Plant**		-	
	Space allocation has been made as per the BMJ Design, however there is very little detail on proposed M&E provision, comment is therefore very limited.		-	

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Bidder 2, Laing O'Rouke				
•	**POTENTIAL CLARIFICATIONS REQUIRED**			
	Have Laing O'Rouke Priced a Fully Compliant Like for Like Tender for the Laboratories, if so can full details of this and specifications be provided			
	Document 12S.2.1 clause 12S.2.1.6 refers to the requirements of the BMJ Appointment and states: Confirmation is required that BMJ will not be working directly for the board for the project in any capacity after Novation. (BMJ will remain as Client Advisors on the design of the main hospital)			
	Is the proposed Novated Design Team for the Labs is required to be co-located with the hospital design team at the SGH Site			
	Structural Specifications suggest a change to CFA Piles, this is not recommended by the Design Team, Please Clarify			

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Bidder 3, Balfour Beatty				
		Positive Attribute	Design Proposals require investigation / consideration	Proposals Have Wider implications / Impact
•	**Design Compliance**			
	Balfour Beatty have priced a fully compliant Laboratories Design based on the current design proposals and this is their only offering, Ther are no Variant Bids.			
	The following notes refer to the detail compliance with employers requirements			
	Programme Based on Compliant Bid by BMJ DT Design	+		
•	**Variant Schemes (Options)**			
	None			
•	**Site Access & Master Plan**			
	Compliant	+		
•	**Internal Planning**			
	Compliant with current plans (Stage D)	+		
•	**External Walls**			
	Eternit jointed to achieve sizes required			
	Pod Walls to incorporate Colt Shadowglas louvers to external facades with walkways			
	Schuco Curtain walling system			
	Doors Dorma KTV			
	Schuco AWS60 window systems (are all Openable)			
	Sto Render Sto Therm Classic			
	Kalwall U value of 1.25W/m2k			
•	**Fitment Plans**			
	Defined Provisional sum for Lab Benching requires further dialogue when preferred bidder			
•	**Roofs**			
	Inverted Sarnafil Roofs and green sedum where applicable.			
•	**Gluelam Beams**			
	Supply chain confirmed that 3300mm is to great a separation and thus this has been reduced to 2400mm	+		BB have developed the design
•	**Glazed roofs**			
	Included for 9No 1200mm x 1500mm smoke vents	+		BB have developed the design
•	**Internal Doors**			
	Compliant			
•	**Floor Finishes**			
	Compliant deviated spec, DPM with 3mm latex Screed			

	Flow Coat SF41 Paint			
	Black granite to Atria Polished			
•	**B of Q**			
	BB have revised C&B approx bills on basis of updated information received on the 17th Aug and are compliant	+		
•	**BREEAM**			
	Compliant	+		
•	**Internal Walls**			
	K10/114 & K10/115 do not meet 90mins fire rating, these will require an additional layer of Pboard which has not been included		-	BB provided info
•	**Internal Glazed walls**			
	Compliant as per drgs received on the 21st Aug 2009	+		
•	**Builders work plans**			
	Compliant	+		
•	**Mortuary**			
	Dialogue to clarify, Provisional sum included		-	
•	**Ceilings**			
	Deviated spec on basis of Meditec A an perforated metal plank ceilings	+		

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Bidder 3, Balfour Beatty				
•	**POTENTIAL CLARIFICATIONS REQUIRED**			
	Is the proposed Novated Design Team for the Labs is required to be co-located with the hospital design team at the SGH Site			

Group		Members		
INPATIENTS		JIM BEATTIE	ISABEL SWINBANK	KAY MALEY
		MORAG LIDDELL	KALSOOM MOHAMMED	URSULA MONAGHAN
RENAL		JIM BEATTIE	URSULA MONACHAN	ELAINE DICK
		KAY MALEY		
IMAGING		ANDREW WATT	MICHAEL BRADNAM	KIRSTEN FORBES
		ANDY BRENNAN	JOHN FOSTER	WINNIE MILLER
		TREVOR RICHENS	EAMON MURTAGH	LYNN ROSS
		ROSEMARY MCMILLAN	MARGARET SHERWOOD	ELAINE JOHNSTONE
		MARY PIRIE	LYNDA CRUIKSHANK	STUART SLOSS
PICU		JENNIFER SCARTH	ANDREW MCINTYRE	MAUREEN TAYLOR
MEDICAL ILL		KATHY McFALL	WINNIE MILLER	ANTOINETTE PARR
DAY MEDICAL		LYNN ROBERTSON	MAUREEN LILLEY	JUDY TAYLOR
CHILD PROT		SARAH HILL	JEAN HERBISON	LYNN ROBERTSON
		+ TELEMED PERSON		

Group		Members		
SCHIEHALLION		BRENDA GIBSON	DERMOT MURPHY	JUDY TAYLOR
		JEAN KIRKWOOD	ANGELA HOWART	NAN McINTOSH
HaN		LESLEY McKEE	CAROL DRYDEN	
DCFP		ALEX FLEMING	JACQUI BEGBIE	LESLEY DUNABIE
		SARAH HUKIN		
MEDICAL REC		MAIRI DICK	MARILYN HORNE	
REHAB & THER		LESLEY WILSON	ELINOR JOHNSON	GILLIAN MCDAID
		ANNE McLEAN	SARA RUSSELL	ROBERT GRIEG
		MAUREEN H	MIKE MORTON	DOUGIE FRASER
		LIZ HUNTER		
CARDIO		JAMES PATON	CAROLINE KING	KENNY McARTHUR
		TREVOR RICHENS	EAMMON MURTAGH	LOUISE BELL
		KAY MALEY	LYNN ROBERTSON	
MED PHYSICS		MICHAEL BRADNAM	DAVE SUTTON	ELAINE DICK
		JOHN McGARRITY	WINNIE MILLER	ANTOINETTE PARR
		LYNN ROSS	DAVE WYPER	
EMERGENCY		SCOTT HENDRY	FIONA RUSSELL	JACK BEATTIE
		WILLIAM CHRISTIAN	MARTYN FLETT	MELANIE HUTTON

		GREG IRWIN	ANDREW McINTYRE	CHARLES SKEOCH
		JUDY TAYLOR	ANDREW WATT	
THEATRES		MICHAEL BRADNAM	ANDY BRENNAN	SANDRA BUTLER
		BARRIE CONDON	ROD DUNCAN	JUDITH GALLAGHER
		NEIL GIVSON	GREGOR WALKER	ELAINE JOHNSTON
		HAYTHAM KUBBA	ROS LAWSON	KAY MALEY
		PARAIC McGROGAN	GRAINNE McNEIL	MEGAN ORR
		PAMELA CUPPLES	PATRICK CAMPBELL	JANE PEUTRELL
		TREVOR RICHENS	LYNNE ROBERTSON	IDA TORRANCE
		SUSAN WALKER	JAMES WALLACE	ANDREW WATT
OUTPATIENTS		RUTH ALLEN	MAURAG BUCHANAN	SALVATORE CASCIO
		PHILIP DAVIES	ROSEANNA FRASER	JANET GARDNER- MEDWIN
		RUTH HAMILTON	JAMIE REDFERN	KAREN PRINCE
		HAYTHAM KUBBA	TIM LAVY	ELAINE LOCKHART
		JANE MacKINNON	VINCE McGARRY	PAUL McLAUGHLIN
		HEATHER READ	LYNNE ROBERTSON	SUE ROBINSON
		ISABEL SWINBANK	JUDY TAYLOR	JAMES WALLACE
		SAMEER ZUBERI		
PHARMACY		ELLEN GRIFFITH	STEVEN LEADBETTER	LYNN MORRISON
		SCOTT NICOL	JAMES WALLACE	
NUCLEAR MEDICINE		MICHAEL BRADNAM	ANDY BRENNAN	ROSS FAIRGRIEVE

		AILEEN MACLENNAN	WINNIE MILLER	ALICE NICOL
		IAN ROBERTSON	LYNN ROSS	MARGARET SHERWOOD
		ANDREW WATT		

SCHIEHALLION WARD (22 BEDS)				
Description	**Qty**	**Unit Area m²**	**Total Area m²**	**Comments**
Bed Area				
Single bedroom: Children/young people, with relatives overnight stay	21	16.5	346.5	
Lobby: air lock to bedroom	8	7.0	56.0	
Shower, WC & wash: accessible, wheelchair assisted	21	4.5	94.5	
Office Area with workstations (x4)	1	18.0	18.0	
Office - clinical - 2 person	1	12.0	12.0	
Staff & communication base, open 2 staff	1	5.0	5.0	
Touchdown space	2	2.0	4.0	
Sub Total			**532.0**	

Utility Area				
Bath, WC & wash: treatment, assisted	1	14.0	14.0	
Clean utility	1	14.0	14.0	
Cleaners Room	1	7.0	7.0	
Parking bay: resuscitation trolley	1	1.0	1.0	
Dirty utility: bedpan disposal & urine test	1	12.0	12.0	
Store: linen & Clothing Back-up	2	2.5	5.0	
Store: general	1	5.0	5.0	
Store: equipment	1	5.0	5.0	
Sub Total			**63.0**	

Patient Support Area				
Treatment room: child	1	16.5	16.5	
Chemotherapy Room	1	12.0	12.0	
School Room	1	18.0	18.0	
Play Room	1	25.0	25.0	
Store Room	1	5.0	5.0	
Interview & counselling room: 5 persons	2	11.0	22.0	
Parking bay:	1	5.0	5.0	
Pantry: serving ward	1	12.0	12.0	
Ward Food trolley parking bay	1	1.5	1.5	
WC & handwash: ambulant - staff	1	2.0	2.0	
Sub Total			**119.0**	

Radiotherapy Treatment Suite				
Radiation shielded patient bedroom	1	20.0	20.0	
Radiation shielded toilet/shower (and drain)	1	4.5	4.5	
Secure shielded ante-room for storage of radioisotope/radioactive injection rig/radioactive waste	1	10.0	10.0	
Radiation shielded controlled lobby	1	6.0	6.0	
Adjoining relatives bed space	1	10.0	10.0	
Ensuite bathroom for relatives	1	6.0	6.0	
Sub Total			**56.5**	

External play area including covered area	1		**0.0**	
Sub Total			**0.0**	External Area

Total Net			**770.5**
Planning	**5%**		**38.5**
Sub-Total			**809.0**
Engineering	**3%**		**24.3**
Circulation	**34.0%**		**275.1**
Total			**1,108.4**

DAY CASE UNIT (Incl Treatment) & Staff Base

Description	Qty	Unit Area m²	Total Area m²	Comments
Day Unit				
Reception	1	5.0	5.0	
Waiting/Play area	1	20.0	20.0	
Consult/Exam/Treatment Room	4	16.5	66.0	
Haemophilia Unit Consult/Exam/Treatment Room	1	16.5	16.5	
Haemophilia Unit Office (2 Person)	1	12.0	12.0	Co-located with Haemophilia/ Consult/Exam /Treatment room
Day Stay Ward	1	68.0	68.0	
Patient WC	2	2.5	5.0	Ensuite to Day Stay Ward
Disabled WC	1	4.5	4.5	
Patient WC	1	2.5	2.5	
BMT Waiting Area	1	9.0	9.0	FACT-JACIE requirement
BMT Day Stay Ward	1	36.0	36.0	
Store: linen & Clothing Back-up	1	2.5	2.5	
Store: general	1	5.0	5.0	
Clean Utility	1	14.0	14.0	
Dirty utility: bedpan disposal & urine test	1	12.0	12.0	
Managers Office	1	9.0	9.0	
Interview Room	1	9.0	9.0	
Office Area with workstations (x4)	1	18.0	18.0	
Sub Total			**314.0**	
Total Net			**314.0**	
Planning	**5%**		**15.7**	
Sub-Total			**329.7**	
Engineering	**3%**		**9.9**	
Circulation	**34.0%**		**112.1**	
Total			**451.7**	

TEENAGE CANCER TRUST

Description	Qty	Unit Area m²	Total Area m²	Comments
Teenage Cancer Trust Accomodation				Adjacent to Shiehallion Ward
Single bedroom: Children/young people, with relatives overnight stay	4	16.5	66.0	
Shower, WC & wash: accessible, wheelchair assisted	4	4.5	18.0	(As per HBN 04-01)
Contingency	1	50.0	50.0	
Sub Total			**134.0**	

Total Net			**134.0**
Planning	**5%**		**6.7**
Sub-Total			**140.7**
Engineering	**3%**		**4.2**
Circulation	**34.0%**		**47.8**
Total			**192.8**

SCOTTISH HOSPITALS INQUIRY

Bundle of documents for Oral hearings commencing from 13 May 2025 in relation to the Queen Elizabeth University Hospital and the Royal Hospital for Children, Glasgow

Bundle 43 – Volume 2

Procurement, Contract, Design and Construction, Miscellaneous Documents