The State Hospitals Board for Scotland

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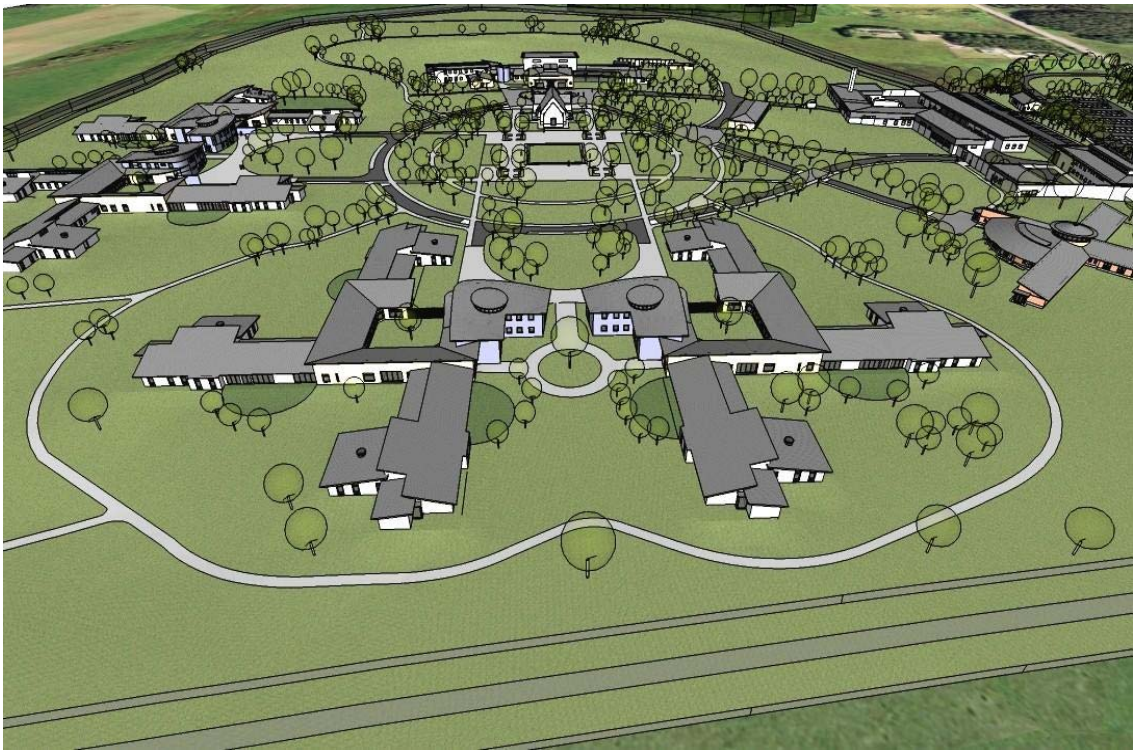
FULL BUSINESS CASE

FOR THE PROVISION OF FIT-FOR-PURPOSE ACCOMMODATION TO SUPPORT THE PROVISION OF APPROPRIATE THERAPEUTIC CARE AT THE STATE HOSPITAL



September 2007

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APPENDICES

EXECUTIVE SUMMARY

This document sets out the Full Business Case for the redevelopment of the State Hospital following a public sector procurement route.

Strategic Context

The strategic context remains unchanged from that outlined in the Outline Business Case (OBC) as do the benefits that the redevelopment will deliver for patients, staff, and carers.

Non-financial Objectives

The project's objectives (making best use of resources whilst providing patients with accommodation that supports their recovery and is appropriate to their needs) have been a constant reference point throughout the development of the scheme's design. The objectives remain unchanged from those established at the OBC stage.

Clinical Model and the Workforce

The design supports the new clinical model which will ensure continuity of care from a dedicated multi-disciplinary clinical team throughout the patient journey. The Board's workforce plan fully supports the new clinical model and is affordable.

Description of the Redevelopment Scheme

The redevelopment provides the following new accommodation:

- Four Ward Hub and Cluster buildings, each housing 36 patients;
- Off-ward Activity Centre;
- Essential Services buildings and estates compound;
- Reception building;
- Family Centre.

It also includes the following refurbished accommodation:

- Administration Centre (former ward accommodation);
- Occupational Health facilities (former Carers Centre).

During the early design stages the Project Team took advantage of design advice offered by the Carbon Trust in order to address sustainability issues within the design.

Contract Procurement Process

In 2005 it was accepted that a publicly funded procurement would deliver better value than PFI. In January 2006 the State Hospital adopted the "develop and construct" variant of "design and build" as its construction strategy along with a 3-stage "negotiated procedure" procurement strategy.

Capital Investment Appraisal

Taking account of the Stage 3 negotiations to date, the target contract price (ex VAT) is £m with commercial risk quantified at £m resulting in a capped price of £m.

Further discussion and evaluation work will be undertaken in the remaining weeks before contract close; this will focus on agreed variant and value engineering items. It is fully expected that this will further reduce the final contract value.

Following specialist advice, high level assumptions have been made about the level of VAT recovery that will be possible.

The full capital value of the scheme is £m, which is within the OBC Addendum capital projections of £m (based on inflation at 6%).

Affordability Appraisal

The Hospital redevelopment project will deliver revenue savings. The original OBC set a target of £1.8m. This has subsequently been at risk of being reduced due to the impact of additional capital charges. The revised OBC (May 06) and the OBC Addendum on inflation (May 07) explored these issues in full. The OBC Addendum gave a commitment to deliver net savings in a range between £1.3m and £1.8m. National projections for forensic services now include an assumption that costs in the State Hospital will reduce by £1.3m as a result of the FBC. The FBC identifies revenue savings of £1.491m.

The revenue projections are underpinned with a robust workforce model that has been developed in partnership with staff side and clinicians.

The net savings projection reflects a fully operational facility. There are transitional costs relating to additional capital charges and double running costs which start to be incurred from Quarter 3 2007/08. Savings build up over the period of construction however will not be fully achieved until after completion of the scheme. The net savings position is fully reflected in the Hospitals five year financial plan which has been signed off as part of the Local Delivery Plan for the Board.

Project Risks

The most significant risks which could impact on the capital value of the scheme (or on the delivery of the capital programme) have been identified along with appropriate mitigation strategies. The optimism bias assessment is that risk is mitigated to 4.8%.

For some months construction inflation was regarded as the highest risk in the project risk register and was the subject of an OBC addendum. The FBC projected capital values are lower than the OBC Addendum estimates thus it is confirmed that the overall capital expenditure plans totalling £m are affordable.

The most significant risks which could impact on the affordability of the scheme (overall financial plan), or on the management of transitional plans, have also been identified, along with mitigation strategies.

Project Management Arrangements

The State Hospital has developed robust project management arrangements covering cost management, cost control, Claims Management Change Control and Contingency Management Value Management. This will ensure effective monitoring and control of the development and implementation of the scheme.

Risk Management

The State Hospital has been committed to continuous risk management throughout the life of the project. All risks have been identified, analysed, mitigated and controlled.

Development Control Plan

A development control plan has been developed that will allow the hospital to remain both fully secure and fully operational during the construction of major new facilities on its existing site. The DCP is set out in four phases: 0) enabling, 1) construction of Essential Services and the Activity Centre, 2) construction of the ward Hub and Clusters, 3) final works and landscaping.

Construction Programme

The contractor's master programme, which incorporates variants agreed by the State Hospital, confirms that the original OBC timetable can be met with the Phase 1 buildings being commissioned and transferred by April 2009 and the second phase reaching the same point by November 2010.

Post-Project Evaluation

The State Hospital has assessed the benefits arising from the project and prepared a benefits realisation plan. The State Hospital will undertake a Post Project Evaluation (PPE) within six months of the commissioning of the second construction phase to determine the degree to which the investment objectives have been met and to consider the acceptability to the end-user of the new facilities provided. The Hospital believes that valuable lessons can be learned from its experience and these will be shared with the wider NHS community.

Equipment Strategy

The State Hospital has a detailed strategy to ensure that appropriate furniture and equipment are provided to meet the needs of the future operation of services within the new hospital. Considerable effort has gone into ensuring that the design of the new buildings is not institutional – similar effort will be expended to guarantee that furniture etc. reinforces this impression.

Information Management & Technology

The Hospital Redevelopment project is both a key driver for improvements in technology and an enabler. This FBC does not change the Board's eHealth Strategy, rather the two are complimentary. Elements of the eHealth Strategy

which are pertinent to the FBC include the development of an integrated Electronic Patient Record and modernising the IT infrastructure.

Staff Consultation

Consultation with appropriate staff organisations has taken place at all stages of the change process. The State Hospital has ensured that effective communication strategies have been developed. The State Hospital will continue to work, in partnership with staff organisations.

Conclusions

The following conclusions are drawn:

- The redevelopment is affordable in revenue terms;
- The redevelopment is within OBC projected capital values (as expressed in the OBC Addendum on inflation);
- The scheme represents value for money;
- The processes used to select the contractor have been robust and well managed;
- The Hospital's service needs will be met in full;
- The risks associated with the investment are manageable;
- Both the State Hospital and the contractor can implement and manage the development;
- The necessary processes are in place to achieve a successful outcome after contract award and well-defined project management arrangements will safeguard the delivery of the project.

1 INTRODUCTION

This Full Business Case reviews and refines the work undertaken for the original Outline Business Case (April 2004), the OBC Addendum: Accelerated Review (September 2005), the Updated Outline Business Case (May 2006), and the OBC Addendum**:** Inflation on Capital Costs (May 2007). The FBC refines the details of the investment appraisal that led to the selection of the preferred option. It also develops and presents the State Hospital's plans for managing the construction phase of the project.

2. UPDATE ON THE STRATEGIC CONTEXT

The strategic context underlying the redevelopment of the State Hospital has been reviewed. The main drivers supporting the need for change remain unchanged from those presented in the OBC, namely:

- National policy and legislative changes;
- The development of low and medium secure mental health services elsewhere in Scotland;
- The current physical condition of the estate.

The State Hospital has a duty to protect the public and, in many cases, compromises the human rights of patients as a consequence of providing a safe and therapeutic environment within the hospital. However, the State Hospital must ensure that it acts legitimately and justifiably within the framework set by:

- The Human Rights Act 1998;
- Mental Health (Care and Treatment) (Scotland) Act 2003;
- European Convention for the Prevention of Torture and Inhuman and Degrading Treatment or Punishment.

The redevelopment of the State Hospital, within the wider development of the Forensic Network for Mental Health Services in Scotland, will ensure that patients are at the core of service delivery. The scheme enshrines the rights of people to have access to appropriate treatment and services and satisfies all current legislation.

The State Hospital confirms that:

1. There have been no changes to the Board's strategic direction or supporting business strategies (service, estate, financial, human resources etc) that affect the need for, or content, of the scheme;
2. There have been no changes to available options and no new options should be considered;
3. There have been no changes to the functional content that would affect the capital or running costs adversely or the ranking of the options considered at the OBC stage;

4. There have been no changes to costs that affect the ranking of options, or are greater than those examined in the risk analysis, or are in excess of the sums available for the scheme as agreed at the OBC stage;

5. There have been no changes to the assessed benefits of the scheme;

6. There have been no changes to the Board's financial position that are significant enough to question the scheme's affordability;

7. There have been no changes to the planned start and completion dates that would adversely affect the scheme or the timetable for funding;

8. The risks associated with the scheme have been mitigated wherever possible and there are none remaining that might affect the decision to proceed with the scheme;

9. The Board has an approved Property Strategy of which delivery of the FBC is a key element.

3 NON-FINANCIAL OBJECTIVES AND BENEFIT CRITERIA

3.1 Key Objectives

The OBC identified that delivery of the key objectives of the redevelopment of the State Hospital would:

- Enable the State Hospital to make best use of its resources in a seamless integrated way for the benefit of patients;
- Ensure patients are living in accommodation appropriate to their needs; and
- Provide an environment that positively supports a patient's recovery rather than hinders it.

These objectives have been a constant reference point throughout the development of the scheme's design and the State Hospital confirms that the proposed development satisfies all of them.

At the OBC stage the State Hospital developed a range of benefit criteria to qualitatively measure the benefits associated with each option under consideration. These criteria were grouped under six main headings according to the impact they would have in relation to:

- Clinical Effectiveness
- Safety and Security
- Physical Environment
- Staff
- Patients
- Carers

The criteria remain current and have shaped the Hospital's Model of Care which in turn has provided the framework for the brief and the subsequent design of the new facilities.

3.2 Benefit criteria

3.2.1 Clinical Effectiveness

The primary concern has been to ensure that the right treatments will be delivered, by the right people, at the right time and in the right place. This includes providing facilities suitable for the range of treatment options that meet all the required standards and that support a multi-disciplinary approach to care. Space will not be a constraint in delivering treatments, and accommodation will be flexible to support changing patterns of care in the future.

3.2.2 Safety and Security

Security is a key aspect of the service provided by the Hospital and forms an integral part of the clinical care provided. The new hospital will ensure that the public, staff, and patients remain safe whilst keeping the security as unobtrusive as possible. It will allow for multiple layers of security and enable it to be tailored to the individual. Steps have been taken to provide flexibility for future developments in technology. The new, more compact hospital master plan will enhance staff safety, movement, and the ability to respond to emergency situations.

3.2.3 Physical Environment

The design provides an improvement in the functionality of the hospital, and improves the quality of the buildings and overall campus. The new environment will also facilitate maintenance, improve efficiency, and enable the Hospital to meet its environmental targets.

3.2.4 Staff

Key benefits that will be delivered are improvements to services and choices for staff, including an improvement in the privacy and dignity of facilities provided, in order to enhance the working environment and so aid the recruitment and retention of staff.

3.2.5 Patients

Alongside the benefits to patients identified under clinical effectiveness and the physical environment will be improvements in a) access to services for patients and b) the privacy and dignity provided by their surroundings. This will include, for example, much improved access to:

- Multi-faith facilities,
- Private areas,
- Personal belongings,
- Fresh air,
- Better services for minority groups,
- A better community campus.

3.2.6 Carers

As with staff and patients, benefits identified include increased privacy and dignity through better facilities for visitors, families, children, and friends. Improved access to information in a visitors centre will also be provided.

4 CLINICAL MODEL AND THE WORKFORCE

4.1 Clinical Model

The Clinical Model for the redevelopment of the State Hospital has developed from the principles set out in the non-financial objectives section. The estate has consistently hindered the development of patient-centred care and the redeveloped site will provide excellent opportunities to modernise the delivery of care to the patient population.

4.1.1 Clinical Model Objectives

The objectives of the new clinical model are as follows:

- To ensure continuity of care from one dedicated multi-disciplinary clinical team throughout the patient journey
- To ensure that each patient has a dedicated key worker who can support them through admission, treatment and transfer
- To achieve patient engagement in a wide range of therapies when and where they are needed
- To ensure that patients have immediate access to therapy on a one to one basis as required
- To develop a 'patient day' with a structured curriculum of activities and development, designed to stimulate recovery
- To improve staff to patient ratios to enable the above objectives to be achieved

4.1.2 Patient Pathway

The clinical model at the State Hospital will be purely focussed on patients requiring high security. It will be essential to develop strong relationships with other network providers in medium and low secure facilities in order to ensure that patients receive the appropriate care in the appropriate setting at the appropriate time.

All patients will be supported by the Care Programme Approach (CPA) throughout their treatment at the State Hospital and their transfer to medium secure facilities. Local services will necessarily be engaged through this process. The pathway for each patient will be planned with local services and be designed to reduce readmission rates. The High, Medium and Low Secure Care Standards developed by the Forensic Network will be used to support the patient's care and treatment plan. Rehabilitation outings from the State Hospital will reduce as the pathway becomes more tailored to transfer to medium secure care.

4.1.3 Planning the Workforce to Support the Clinical Model

Projecting the future workforce has been taken forward with a dedicated emphasis on partnership working. Extensive consultation with multi-disciplinary

teams has taken place in order to devise a workforce plan to support the objectives of the Clinical Model. A sub-group of the Project Board, the Organisational Development Group (ODG), has been tasked to determine the staffing levels required to deliver the new clinical model. This interdisciplinary group has undertaken a thorough review of all known operational requirements and consulted extensively over staffing projections. This review took cognisance of a wide range of data related to the designs of the new hospital. This included revisions on the new clinical model of care, activities that would support the patients day within the Hospital, detailed design activity schedules for each area of the redevelopment, consideration of the design principals for the new hospital, benchmarked data of staffing in other high and medium secure hospitals, national professional guidelines and standards and consideration of existing and proposed working patterns.

In addition it drew upon the experience gained in the formulation for the original OBC staffing assumptions and the staffing models, Model A & B within the 2007 Board Workforce Plan. (See Appendix 1 - Workforce Planning).

Drawing upon all this data the ODG held a structured workshop that brought together over 50 clinical staff from every discipline across the hospital, staff side representatives and relevant support staff to work through three patient case studies and simulate the care and treatment planning process for each one.

The workshop was designed to give detailed consideration to all aspects of clinical care across and the patients clinical and care pathway. This covered initial patient assessment, the first 24 hours on admission, the initial follow up phase, referral to other settings or specialised areas of care and preparation for transfer. It also considered management and care during specific problem phases, treatment plans and relapse following the transfer phase. The outcome of the workshop was to have fully explored all future care and treatment activity and resulted in detailed activity data being generated which reflected the clinical experience of patients through the new hospital in accordance with the new clinical model. The ODG also held a further session with clinical staff involved with delivering care to patients with a learning difficulties (LD). Patients in the LD service have specific clinical requirements in addition to those of other patients. These were explored in detail to address specific concerns and identify specific staffing requirements.

The information generated through the workshop along with all the other information was then brought together to project staffing levels across each discipline and work area. A process was devised that ensured draft staffing projections were produced which were subject to further critical assessment by each clinical lead before being agreed and signed off. The process ensured there was transparency in the development of staffing projections and provided clinicians and support managers with a confidence that they could deliver the service requirements of the new clinical model. The results have been shared and discussed with the Partnership Forum.

5 DESCRIPTION OF THE REDEVELOPMENT SCHEME

5.1 Outline

The State Hospital provides care and treatment for patients with mental disorders who cannot be cared for in any other setting. Given that the patients do not have access to other services or communities the hospital must be able to address all of their needs (therapeutic, vocational, social and physical well being etc.) via a range of facilities within a highly secure perimeter. Thus the redevelopment will comprise new-build facilities of approximately 19,000 m^2 plus adaptation (for alternative use) of a further 1,500 m^2 of existing buildings. The new-build facilities will be constructed in three phases to allow the high security psychiatric hospital to continue in operation during construction. The procurement will be a Design and Build (Develop and Construct) contract.

With involvement of key stakeholders from the outset, the scheme's development has adopted an integrated process in which design, construction, operation and maintenance have been considered as a whole. The design centres on functionality, appropriate build quality and is sensitive to its impact on the environment.

5.2 Facilities

The redevelopment provides the following new accommodation:

- Four Ward **Hub and Cluster** buildings, each housing 36 patients;
- Off-ward **Activity Centre** providing various patient services including sport/fitness, craft/hobby, garden/botanical, pet/animal care, social events/entertainment, advocacy, multi-faith counselling, shopping, hairdressing, medical, dental, and psychological therapies;
- **Essential Services** buildings and estates compound;
- **Reception** building;
- **Family Centre;**

The redevelopment includes the following refurbished accommodation:

- Administration Centre (former ward accommodation);
- Occupational Health facilities (former Carers Centre).

The existing Management Centre and West Wing Hall (primarily a staff training facility) will be retained but are not included in the redevelopment scheme.

A detailed design commentary is given in Appendix 2. In addition to describing each facility the commentary covers the redevelopment model of care, site topography and best practice delivery as these are recognised as central factors in the development of the design.

5.2 Sustainability

The imperative to move further and more vigorously towards sustainable development is self evident and this project, from the outset, has fully engaged this agenda. During the early design stages the Project Team took advantage of design advice offered by the Carbon Trust in order to address sustainability issues within the design.

In respect of the sustainability agenda the project's delivery is primarily met through:

- the use of a centralised biomass boiler plant, providing space heating and hot water;
- natural lighting and ventilation of deep plan circulation areas through clerestorey windows;
- rainwater harvesting.

It is important to note that the special security circumstances of the project generally restrict the introduction of, say, solar collectors and other such roof mounted, low carbon devices. The risks of introducing breakable glazing have deemed such installations inappropriate. Similarly, auto switching of light fittings (to reduce electricity consumption) is problematic to security interests.

6 CONTRACT PROCUREMENT PROCESS

6.1 Background

Following the submission of an OBC Addendum Accelerated Review in September 2005 the SEHD accepted the State Hospital's conclusion that a publicly funded procurement route would deliver better value than the PFI route that was being tested. The change in funding route required a new contract strategy to deliver the project.

The defining features of the project that influenced the selection of the most appropriate procurement regime were:

- Need for early completion;
- Desire to maintain project momentum;
- Need to retain influence over the design;
- Complexity of the construction phasing process;
- Particular nature of the State Hospital's services;
- The need to achieve best value in accordance with SEHD and Treasury guidance.

The Redevelopment Project Board considered Traditional procurement and the Develop and Construct variant of Design and Build in detail and determined that both would allow the State Hospital to exercise the necessary prescription over design required in a high secure therapeutic environment. Both two-stage Traditional tendering and Develop and Construct would also allow the State Hospital to benefit from contractor input in relation to buildability. The Board noted that there was greater opportunity to transfer risk to the contractor under Develop and Construct than in a Traditional contract. It was observed that the Government favoured partnering routes such as Design and Build but did not exclude traditional procurement. On balance, the Project Board felt that Develop and Construct best met the needs of the State Hospital in terms of design prescription, buildability, and risk transfer.

The Project Board also examined how early completion and project momentum could best be realised. It was noted that Design and Build contracts generally allow earlier completion than Traditional contracts. In terms of the project's momentum, the Project Board felt that this would be jeopardised were a new design team to be engaged at that stage (January 2006). There would be an inevitable learning curve and unavoidable rework with clinical teams being obliged to restate their requirements to some degree. Procurement regulations precluded the current advisers acting as the design team under a Traditional procurement.

Taking all these factors into account, the Project Board concluded that Develop and Construct should be adopted as the State Hospital's construction strategy.

In practice this meant that once the project design brief was complete, the detailed planning application had been approved, and the construction tenders had been evaluated, the designers were released. Of the original advisers, only Currie & Brown were retained by the State Hospital as Client Advisers.

6.2 Procurement Strategy

The State Hospital adopted a three-stage procurement strategy beginning with the publication of an OJEU contract notice in August 2006 (see Appendix 3) that set out the conditions of the negotiated procedure that would be followed.

6.2.1 OJEU Pre-qualification

The objective of the OJEU pre-qualification was to select a maximum of 5 and a minimum of 3 eligible and capable contractors who would receive an invitation to proceed to the multi-stage negotiation procedure. The Project Board agreed that this number would be sufficient to ensure genuine competition.

Four contractors responded to the Contract Notice:

- Barr Construction;
- Laing O'Rourke;
- Miller Construction;
- Skanska.

Following a comprehensive evaluation process Barr was eliminated and the remaining three contractors were issued with an invitation to participate in the three stage procurement strategy.

6.2.2 Stage 1 - Negotiation

The objective of the Stage 1 Negotiation was to reduce the number of contractors participating in the negotiation stages from 5 to 3, even although only 3 contractors had pre-qualified. The invitation to negotiate was accompanied by the following documents:

- Site Masterplan;
- Phasing drawings;
- High Level Programme;
- Preliminaries;
- Evaluation Criteria for all stages of negotiation including the relevant weighting of criteria.

Contractors were asked to provide project specific methodology and priced preliminaries. Contractors were given 4 weeks to respond to this invitation.

The State Hospital ensured equal treatment of contractors and ensured that information was not provided in a discriminatory manner.

Contractor's responses were evaluated by a pre-selected panel in order to confirm that the 3 contractors should proceed to the Stage 2 Negotiation. The Project Board ratified the decision to allow all 3 contractors to proceed to Stage 2 as they had all comfortably exceeded the minimum score required in the evaluation process.

6.2.3 Stage 2 - Negotiation

The 3 contractors were invited to submit detailed tender proposals based on the following information provided by the State Hospital:

- Site Masterplan;
- Phasing Layouts;
- Accommodation Schedule;
- Written Output Specification;
- Exemplar ward layout;
- Room data/function sheets;
- Pricing documents for the Phase 1 building works;
- Detailed proposals/employers requirements to .RIBA work stage D as a minimum;
- Proposed Contract Terms and Conditions;
- Local authority planning information;
- Evaluation Criteria for Stage 2 submissions including the relevant weighting of this criteria.

Notes:

1. Design at this stage was to RIBA Stage G (tender documentation) for Phase 1 works and RIBA Stage D (Complete development of the project brief) for Phase 2 and Phase 3 works.
2. Planning permission for the redevelopment was granted in January 2007

Contractors responded by providing tenders that included:

- Fixed Priced Prelims;
- Priced documents for Phase 1 Works;
- Elemental cost plans for the remainder of the buildings;
- Pre Construction/Construction Programme;
- Strategy for development and finalisation of design and price;
- Proposals for a fixed priced incentive contract arrangement;
- Target price for total re development (and capped price);
- Health and Safety Information.

Control of the design remained with the State Hospital at this stage.

The contractors were asked to submit compliant and variant bids with target and capped prices for each bid. Submissions were received from the three contractors on 16 July and an evaluation process continued that ensured equal treatment of all contractors during this stage of the negotiations. One contractor, Miller Construction, did not submit significant parts of the required documentation and subsequently withdrew from further involvement in the procurement.

The remaining two tenders from Laing O'Rourke and Skanska were subjected to detailed evaluation as shown in the following section. This stage culminated in one contractor, Skanska, being selected to go forward to the Stage 3 - Refinement of the final bid.

6.2.4 Stage 3 – Refinement of Preferred Contractor's bid

Stage 3 negotiations began with Skanska on 13 August 2007. The contractor has appointed its design team to complete the design of all 3 phases

Early in Stage 3 the maximum price for the compliant bid was agreed. Work continues on the following key activities:

- Agreeing variant items to be included in the final contract price;
- Completing Development of Design;
- Value engineering;
- Agreeing detailed phasing and the pre-construction and construction programme;
- Compiling the Health and Safety/CDM and Quality Management Files.

The contractor has confirmed its target price (again, firm for the compliant bid and a work in progress for the variant bid). The contractor will be paid actual costs up to the target price. Any saving will be agreed on the basis of a shared split incentive to reduce costs and/or maximise profits. A maximum price above the target has also been agreed (the capped price). Between the target and the capped price the contractor will be paid an agreed percentage of its costs up to the maximum. A shared risk/incentive mechanism will manage costs up to the cap. Beyond the cap the contractor will not be paid.

7 CAPITAL INVESTMENT APPRAISAL

7.1 Outcome of Financial Evaluation

The financial values (excluding VAT) which were used to generate the scoring on the financial evaluation are expressed below:

Costs in £m (excluding VAT)	**Laing O'Rourke**		**Skanska**	
	Compliant	**Variant**	**Compliant**	**Variant**
TARGET PRICE				
CAPPED PRICE				

Note: The variant values are generated by the Hospital rather than those submitted by the bidders. These values are derived by adding the anticipated cost of the agreed variant items to the compliant bid price. This was determined by the evaluation team to be the most prudent method of evaluating the tenders.

7.1.1 Summary of Stage Two Evaluation

When the financial evaluation is combined with the qualitative evaluation, the overall evaluation results indicated that Skanska was the preferred bidder.

7.1.2 Stage Three Negotiations

Stage 3 negotiations commenced on 13 August 2007. These negotiations are not yet completed and will continue up to contract close, which will take place after the Capital Investment Group's consideration of the business case. However, there has been sufficient discussion and agreement reached on key factors to enable the Full Business Case to be produced at this time.

The Stage 3 negotiations have concentrated on:

- Review of variant proposal in more detail;
- Review of project risk register;
- Confirmation of security aspects of the construction programme;
- Final cost review taking account of agreed variant items;
- Agreement of variant items and value engineering proposals to be considered in more detail before contract close.

It has been agreed that the variant proposals in relation to construction methodology and roofing materials can be accepted by the Hospital. This substantially impacts on programme, price and risk, with buildings becoming wind and water tight earlier, and reducing the risks associated with availability of wet trades (such as bricklayers and plasterers).

Taking account of the Stage 3 negotiations, the target contract price is £m, commercial risk is quantified at £, resulting in a capped price of £m (all figures

excluding VAT). This capped price is the value that has been used in the remainder of the financial and economic evaluation.

7.2 Risk Analysis

The most significant risks which could impact on the capital value of the scheme, or on the delivery of the capital programme, are identified below, along with their mitigation strategy.

Risk	Mitigation Strategy
That inflation costs exceed the values allowed for in the contract sum	Price risk Pain / gain share arrangement with contractor. Explore further options for avoiding inflation, including early purchase of phase 2 materials
Capital implications of phasing are higher than anticipated	Price and Programme risk A range of provisional sums are included in the contract sum to mitigate this risk. Further services and security workshops to take place to ensure all issues identified and addressed.
The new PAA system is not fully installed and commissioned by the main contract start date	Programme risk The commissioning of the PAA system is currently four weeks behind schedule. It is still planned to be operational prior to the main contract start date. The delay is not considered to be critical, in that it is more important to have a fully functioning system prior to commencement of FBC works.
Delay to construction programme	Price and programme risk Liquidated & Ascertained (L&A) damages figures included in contract and provides incentive for contractor to keep to programme Robust project management arrangements in the construction phase. Acceptance of the variant item in relation to construction methodology significantly reduces the likelihood of this risk materialising. Further variant items to be considered to provide further certainty on programme (e.g. prefabrication) The contractor has recognised potential failure to obtain labour in their commercial risks; therefore this will be accommodated within the capped price. The mitigation strategy is for the early procurement of multiple trade contractors as required.
Impact of unknown ground conditions	Price and programme risk Site investigations conducted. Further discussion with the contractor in relation to any additional survey work required. Should any further survey work be required this is outwith the current pricing structure. This is considered to be the contractor's risk (and is accepted by them in principle) although formal transfer of the risk has still to be agreed.

Risk	Mitigation Strategy
Poor design coordination	Price and programme risk The contractor has recognised this risk both in the target price (by establishing a design development contingency) and in their commercial risk, therefore this risk will be contained within the capped price.
Employer requirements not sufficiently defined	Price and programme risk Further review of the Room Data Sheets by The State Hospital has identified amendments required. These are not considered to have a significant net effect.

7.3 Fixed Price Incentive Scheme

Within the contract there will be provision for pain / gain share on variations in the final costs compared to the target and capped contract sums. This pain / gain share will be assessed at the end of each Phase. The scheme will operate as follows:

- Costs are below target: equal share contractor and client;
- Costs are above target but below the capped price: Costs will be borne 40% by the contractor and 60% by the State Hospital.

The difference between the target and capped price is £. Given that the commercial risk is a small proportion of the overall contract sum, the fact that the pain / gain share is slightly preferential to the contractor is considered to be fair. It is clear that substantial efforts have been made by the contractor to quantify commercial risks and the contractors risk register process is quite transparent to The State Hospital.

There is an option to fix the contract price at a cost of circa £. However given this option represents 72% of the gap between the target and capped price, it is not considered best value to take up this option.

7.4 Optimism, Variability, Contingency Planning and Flexibility

As noted above, there is further discussion and evaluation work to be undertaken in the remaining weeks before contract close. This work will focus on agreed variant and value engineering items. It is fully expected that this will further reduce the final contract value. This is covered in more detail in the affordability section; however, the following table provides high level information on the variant and value engineering items still under consideration.

	Full value	% assumption used for level of confidence	Adjusted for confidence level
Variant items			
Very high confidence			
High confidence			
Medium confidence			
Low confidence			
No confidence			
Sub total variant items			
VE items			
Very high confidence			
High confidence			
Medium confidence			
Low confidence			
No confidence			
Sub total VE items			
Grand total			

The most significant aspects under consideration are:

- Rationalisation of hard landscape design. The roads are currently specified to highway standard and this is considered highly likely to generate savings through a review of the specification.
- Simplification of external works design and garden landscaping. It is agreed there is potential for substantial savings and this is to be the subject of detailed review. A very prudent position has been assessed in the table above (saving of £). It is felt that this saving could well be in excess of £.
- Review of LV Cable Design. This is to be reviewed with the maintenance manager.
- Review specification of windows (without compromising security aspects).
- Alternative suppliers of certain materials.
- Potential for on site disposal of surplus excavated materials. A very prudent position has been assumed to date, pending clarification of legal issues. Should this be possible it would realize an additional £ saving.
- Early purchase of Phase 2 materials to avoid inflation costs. This has the potential for a significant saving on overall capital however would impact heavily on cash flow and transitional costs. Realisation of this saving requires early agreement on designs currently at Stage D, to reach Stage G design.

Optimism bias calculations in the revised OBC indicated an optimism bias factor of 24% upper bound, which was mitigated down to 6.82% by effective risk

management strategies. The calculations have been reviewed and results in an improvement in the level of mitigation on a range of fronts: planning approvals; detail of design; capability and involvement of the contractor; client capability and capacity. The assessment is that risk is mitigated to 4.8%. Details of the calculations are included in Appendix 4.

It is considered that the optimism bias calculations are not sensitive enough to reflect the high secure nature of the site and that it is possible there may be some potential for increased security costs. There are provisional sums included in the FBC at £m (6% of the contract sum) which includes provision for a range of security issues at a level of approximately £. If these costs are underestimated by 10% it would add £ to the overall cost of the scheme.

At this stage it is felt reasonable, given the level of certainty over the design and the level of confidence in being able to deliver further variant or value engineering savings, that a contingency value of 5% or £m should be sufficient to address any issues that arise, including any additional security aspects. (The difference between 4.8% and 5.0% is £.)

The table below indicates that there is potential for reduction in the cost of the contract of at least % should the contingency not be required, and if all the variant and value engineering items are delivered. Prudent assumptions have been made in relation to variant and value engineering items therefore there should remain sufficient flexibility within the project to accommodate materialisation of any risks or essential changes in the project.

CONTRACT VALUE (FIXED PRICE)

CONTINGENCY ITEMS	**With Skanska**	**With TSH**	**TOTAL**
Dayworks (included in contract)			
Design development (included in contract)			
Commercial risk (included in contract)			
Contingency (TSH calculation at 5%)			
Variant items (still to be reviewed)			
VE items (still to be reviewed)			
TOTAL CONTINGENCY ITEMS			
AS % OF FIXED PRICE CONTRACT			

Later sections in the Full Business Case describe the robust process that will be in place regarding change management, cost control, risk and value management, and benefits realisation.

There is provision for the payment of Liquidated and Ascertained (L&A) damages to the Hospital based on a weekly rate which varies depending upon the phase in which the delay occurs. This provides an incentive to the contractor to ensure the programme is delivered. These figures are based on an assessment of the loss to the Hospital from such a delay, taking account of factors such as increased double running costs, inability to realise capital charge savings and additional capital charges incurred during the construction process.

7.5 Inflation

For some months this was regarded as the highest risk in the project risk register and was the subject of an OBC addendum. The approach to mitigating this risk is to include price fluctuations in the tender sum based on an assumed annual percentage increase related to the BCIS all in tender price index from the date of tender. This is set at an annual rate of inflation from the base of 6% spread evenly over each quarter index period.

If the actual index indicates an increase or decrease compared to the assumed tender allowance of 6%, the difference will be shared on a 50/50 pain/gain basis between the State Hospital and the Contractor. The same risk sharing arrangements apply if inflation is less than 6%, in which case the contractor would have passed this risk to the State Hospital. A variation of +/- 2% from the figures included in the contract sum accounts for around £ change in capital costs and £ change in capital charges.

The table below shows the predicted impact on capital costs and capital charges, should inflation vary from the levels included in the contract sum.

Annual Inflation Rate	Capital costs	Increase over 6%	% Increase	Risk passed to contractor	Increased capital charges
6%					
8%					
10%					

The capital estimates included in the OBC addendum were higher than these values, thus it is confirmed that the capital expenditure plans are affordable.

Substantial capital savings may be possible through early purchase of Phase 2 materials, as a means to avoid future inflation. This would require substantial payment up front, with safeguards built into the contract. This is to be reviewed in detail, prior to contract close, to determine whether any of these opportunities could be taken up. An added benefit in programme terms from taking this approach is that the design would need to be finalised more quickly for the Stage 2 buildings.

An upfront payment of £ would have the following impacts:

- At 8% inflation: reduction in contract value of £, avoidance of £ future capital inflation and increase in capital charges compared to the FBC values of £annually.
- At 10% inflation: reduction in contract value of £, avoidance of £future inflation and increase in level of capital charges compared to the FBC values of £ annually.

The downside of this approach is that it would add substantially to the capital charges in the transitional period up to full running. It is expected that this would increase capital charges in 2007/08 by at least £ with small reductions occurring in future years. The accounting treatment requires further discussion as part of these negotiations.

This approach should also give greater confidence in delivery of the full programme. However, it does open up the potential for alternative programme risks, in that if there is early payment in advance to a sub-contractor who subsequently folds, an alternative will need to be found. This risk already exists in programme terms and the contractor's response is to ensure that contingency plans are in place for key sub-contractors.

7.6 Full Capital Cost of the Scheme

The full cost of the redevelopment will also include advisers' fees, equipment and art works purchased directly by the Hospital.

VAT Liaison has been contracted by the Hospital to give advice on the scheme and high level assumptions have been made about the level of VAT recovery that will be possible. The following assumptions have been included in the final analysis of capital costs.

VAT RECOVERY	**%**	**Estimate**	**On contract**
Staff dining room	100%		
Kitchen	25%		
Patients shop	100%		
New build up to			
Refurbishment up to			
Design fees up to commencement of contract	100%		
Total VAT recovery			

Consideration was given to further recovery opportunities arising from business activities: namely the potential for recovery of costs relating to car parking and use of sports facilities. Following careful consideration by the Project Board, a recommendation was made that these business activities were not pursued as they were neither economically viable nor in line with the strategic aims of the Hospital. The Hospital Board approved this decision in June 2007.

Taking on board all costs, the maximum anticipated capital cost of the redevelopment is as shown below. As noted above negotiations are ongoing up to contract close and it is expected that these negotiations will reduce the contract value. The capital projections are lower than the OBC addendum which included inflation costs.

CAPITAL CASH FLOW	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**Total**
Skanska contract***							
Equipment & art***							
Fees paid direct by TSH **							
Contingency at 5%							
VAT Recovery							
Cumulative AUC spend							

** costs net of VAT, full recovery on these fees
*** costs include VAT

Full Business Case Forms FB1-4 are included at Appendix 5.

7.7 Accounting Treatments

1) Initial equipping costs

The purchase of a large number of low value items of equipment expenditure would result in an exceptional charge to the Operating Cost Statement in the first year of a new hospital or strategy development. In these circumstances, health bodies have the option to capitalise such expenditure as a single 'equipping' asset with a useful economic life of up to 10 years. On this basis it has been assumed that all low value items will be capitalised as part of the cost of bringing the new hospital into use.

2) Attributable and non attributable costs

Financial Reporting Standard (FRS) 15 clarifies which costs can and cannot be capitalised on acquiring or constructing an asset. It says:

> *'A tangible fixed asset should initially be measured at its cost. Costs, but only those costs, that are directly attributable to bringing the asset into working condition for its intended use should be included in its measurement'.*

Expenditure that should be capitalised includes:

- Acquisition, construction, preparation or replacement of buildings and other structures and their associated fixtures and fittings;

- Acquisition, installation or replacement of movable or fixed plant, machinery, vehicles and vessels.

Costs incurred in the early stages of a project to acquire or create a tangible fixed asset or an intangible asset other than development costs should only be capitalised if at the time they are incurred:

- There is a clearly defined project;
- The costs are separately identifiable;
- It is reasonably certain that the project will be completed and will result in an asset that will eventually be brought into use.

During the audit of the 2006/07 accounts external audit confirmed that the early costs associated with design development were attributable to the creation of a new asset.

Attributable costs may include the cost of the Board's own employees' salaries and expenses where these are deemed material and if the other criteria for capitalisation are met. There are no plans to capitalise costs of the Board's own employees. Any additional security costs which may be incurred by the Hospital, over and above the contractors own security arrangements, are currently expected to be revenue in nature.

FRS 15 specifically says that the following are not directly attributable costs and so should be charged directly to the Operating Cost Statement rather than capitalised:

- Administration and other general overhead costs;
- Employee costs not related to the specific asset (such as site selection activities);
- Operating losses that occur because a revenue activity has been suspended during the construction of a tangible fixed asset;
- Abnormal costs e.g. costs relating to: design errors; industrial disputes; idle capacity; wasted materials, labour, or other resources; and production delays.

There are no such costs included in the capital projections.

Costs incurred in demolishing or rearranging existing assets should be capitalised where this is necessary to allow a new asset to be built. Where no new asset is to be created, these costs must be taken as revenue expenditure. Demolition costs are assumed to be capitalised.

There is no expectation of capitalising staff training costs associated with the introduction of new systems.

3) Valuation of estate

The Board's valuer has had an opportunity to review the cost plans and documentation relating to the re-development. On this basis he is able to provide some guidance as to potential value on completion.

The advice to date is not a full valuation but simply provision of initial guidance based on limited information based on the understanding that following redevelopment the only buildings remaining on site will comprise the following:

- Management Centre;
- Lomond Ward;
- West Wing Hall;
- Carers Centre.

In the absence of other information it is assumed that none of the existing site services will remain.

It is assumed that the costs provided are representative of the new buildings to be provided as at today's costs. It is assumed that the sections on the cost plan entitled 'Abnormal Preliminary Items' and 'Demolitions' are costs that will have no residual value in terms of the heritable property. Due to the nature of the site, it has been confirmed that a specialised DRC (depreciated replacement cost) based valuation would still be appropriate.

The valuer has advised that from his limited review to date, it would appear that, on completion, the State Hospital is likely to have a present day value in the region of £X- X million, excluding land.

The above value is indicative only and cannot be verified without further detailed investigation into the detail of the redevelopment proposals.

8 AFFORDABILITY APPRAISAL

8.1 Five Year Plan - Context

The Hospital has a track record of delivery of financial targets and in each of the previous three financial years has carried forward substantial sums, which have been set aside to cover any transitional costs associated with hospital redevelopment and other non recurring issues.

During 2006/07 high level costing work on the redevelopment project indicated a need to set aside resources to support transitional costs over the period up to full running of the new build and these start to take effect during 2007/08. This was accommodated in the five year plan which was approved by the Board in February 2007.

The first priority in financial planning terms must be to achieve recurring balance which is delivered during 2007//08. The Board also has a balanced in year budget with effective use of non recurring funds to support non recurring expenditure.

The full five year plan, which underpins the Hospital's Local Delivery Plan and which is approved by the SEHD, is provided in Appendix 6.

8.2 Revenue Costs

The Hospital Redevelopment project will deliver revenue savings. The original OBC set a target of £1.8m. This has subsequently been at risk of being reduced due to the impact of additional capital charges. The revised OBC (May 06) and the OBC Addendum on inflation (May 07) explored these issues in full. The OBC Addendum gave a commitment to deliver net savings in a range between £1.3m and £1.8m. National projections for forensic services now include an assumption that costs in the State Hospital will reduce by £1.3m as a result of the FBC.

The net savings projection reflects a fully operational facility. There are transitional costs relating to additional capital charges and double running costs which start to be incurred from Quarter 3 2007/08. Savings build up over the period of construction however will not be fully achieved until after completion of the scheme. The net savings position is fully reflected in the Hospitals five year financial plan which has been signed off by SEHD finance as part of the Local Delivery Plan for the Board.

Revenue costs are projected to reduce by £1.491m as a result of the Hospital redevelopment. This figure is comprised as follows:

Clinical staffing	£(2.942)m
Non clinical staffing	£(0.642)m
Supplies	£(0.562)m
Subtotal operating costs	£(4.146)m
Other (including capital charges)	£2.655m (increase)
Net savings	£(1.491)m

The Hospital Board remains fully committed to delivering savings from this scheme and is confident that these savings represent a prudent assessment. It is intended that further review of capital spend including variant items, value engineering and review of equipment provisioning will provide further benefit by way of capital charges reductions.

8.3 Staff Costs

A key driver for the revenue cost model is the impact that the redevelopment will have on staffing levels. A number of staffing related benefit criteria were identified in the OBC including:

- Does this option enable care to be delivered by the right people?
- Will it support effective multi-disciplinary working, technology and office location?
- Does the option aid staff movement and ability to respond?
- Does the option improve access to services and choices for staff?
- Does the option improve access to services for patients?

The Organisational Development Group has sponsored the development of a workforce plan that describes the staffing required to deliver the planned model of care. The workforce plan has been developed through a consultative process involving key stakeholders. The staffing levels across all categories and grades of staff have been reviewed. Whilst some reduction in numbers are anticipated across all departments as a result of the reduction in patient numbers, the most significant changes are proposed in the level and skill mix of nursing staff.

When determining the future requirements, four main factors have been taken in to consideration:

- The reduction in patient numbers but increased levels of need and risk posed by the remaining patient population;
- Those tasks currently undertaken by nurses that should be removed or better supported by campus and ward design or security and IT technology, such as dealing with visitors, escorting patients and supervising non-clinical staff;
- Benchmarking of staff:patient ratios with other special secure hospitals (Ashworth, Broadmoor and Rampton) whose current patient groups demand a similar level of care;
- The European Convention on Human Rights and other legislation, with its increased emphasis on the rights of the individual.

The workforce model gives rise to the following expected staffing levels and changes in the cost profile.

	Base		FBC		Reduction		% Reduction	
	WTE	Cost	WTE	Cost	WTE	Cost	WTE	Cost
Clinical								
Ward nursing	341.83	12,635	278.00	10,063	(63.83)	(2,572)	(18.7)	(20.4)
Other clinical	142.62	6,719	137.33	6,349	(5.29)	(370)	(3.7)	(5.5)
Sub total clinical	**484.45**	**19,354**	**415.33**	**16,412**	**(69.12)**	**(2,942)**	**(14.3)**	**(15.2)**
Sub total non clinical	208.04	6,208	191.33	5,566	(16.71)	(642)	(8.0)	(10.3)
TOTAL	**692.49**	**25,562**	**606.66**	**21,978**	**(85.83)**	**(3,584)**	**(12.4)**	**(14.0)**

Benefits realised with this staffing profile and model of care include:

- Increase in staff to patient ratio (covered in next section) thus supporting the ethos of improved access and ensuring care is delivered by the right person at the right time.
- Support for multidisciplinary teams (e.g. 2.70 WTE security staff now recognized as part of the clinical staffing; increase of 2.35 WTE pharmacy staff to improve clinical pharmacy service to wards; establishment of lead clinical roles)
- Hub and cluster design and model of care improves the ability of teams to work together and to respond to issues
- Creation of additional therapeutic capacity and flexibility through creation of hub based teams providing therapy services such as Speech and Language, Art, Drama and Music.
- Review of the catering model provides greater access, choice and flexibility.

The greatest reduction is observed in clinical staffing. Reductions in non-clinical staffing are more difficult due to the need for safety, security and maintenance of the site. These requirements do not fundamentally change as a result of the redevelopment.

Given that natural staff turnover, including retirals, is running at just under 50 WTE staff per year it is anticipated that transition to the predicted staffing levels will be achieved through the careful management of vacancies leading up to 2011.

A robust approach has been applied to determine projected staffing levels. This provides confidence that the staffing levels are both affordable within the projected financial constraints of the OBC and achievable through the management of vacancies. The projected staffing levels provide the basis for the next reiteration of the Board Workforce Plan to determine a detailed transitional plan for the new hospital supported by training and human resources interventions as appropriate.

8.4 Supplies Costs

Supplies costs are anticipated to reduce from their current levels by 17.3%. This is a reduction of £0.769m of which £0.305m is directly patient related and reflects the reduction in bed (and patient) numbers. The remaining supplies are either reducing in line with staff reductions or are related to the cost of maintaining and running the new estate. It is expected that supplies costs may be able to be reduced further through some of the contractor's proposals for variant items.

8.5 Staffing Levels

A key deliverable from the project is an improvement in staff:patient ratios. Key changes are outlined below:

	2007/08 data	
	Base	**FBC**
Beds	**240**	**144**
Consultants	12	9.6
WTE per bed	0.05	0.07
Registered Nurses	273	193.5
WTE per beds	1.14	1.34
Nursing Assistants	115	115
WTE per bed	0.48	0.80
Clinical Psychologists	24.5	20.2
WTE per bed	0.10	0.14
Social work	11	11.6
WTE per bed	0.05	0.08

8.6 Capital Charges

Additional capital charges arise due to the extent of the capital project and due to the fact that existing buildings are substantially depreciated. This is offset to some degree by capital charges saved on buildings which are to be demolished.

Capital charges on new build	£m
Capital charges saved from demolished buildings	£(m)
Net additional capital charges	£m

Assets under construction
Assets under construction are not depreciated, because depreciation is appropriate only when assets are in operational use.

As noted in the capital investment section there is potential for capital variations. Should these materialise the impact on capital charges would be:

- Inflation (8%) increase of £
- Inflation (10%) increase of £
- Fixed price scheme increase of £
- Variant and VE items reduction of £
- Early purchase of Phase 2 materials reduction of £

Additionally, it is considered that a further more stringent review of the equipment lists could realise savings. For every £200k of savings on the capital equipment budget, savings of £27k would be realised in capital charges.

The Board is committed to ensuring the increase in capital charges is minimised as much as possible so that funding can be preserved for direct patient care and to maintain the standards set for support services.

During 2006/07 a full impairment review was conducted and it was agreed with external audit that it was appropriate to commence impairment of the estate. In undertaking that review, it proved difficult to separate legislative and policy drivers such as the Mental Health Act (specifically appeals against excessive security) and the progress of the business case. It was agreed to commence impairment on the basis that one ward was becoming finally out of use as a consequence of changes in women's services. Impairment of £63k was recognised in the 2006/07 annual accounts and was funded internally by the Board. From 2007/08 it is assumed that all impairments are funded by the Scottish Government Health Directorates.

8.7 Comparison of Total Revenue Costs with OBC Projections

The approved OBC identified £1.3m of net savings and made a commitment to continue to seek savings up to £1.8m. The OBC addendum highlighted the risk to delivery of these savings arising from construction inflation, and reaffirmed the Board's commitment to deliver as close to the original £1.8m target as possible.

The table below highlights that through a combination of increased revenue savings and reduced adverse impact of capital charges, the projected savings are currently £149,000 improved on the updated OBC from May 2006 (net savings are 11% greater).

AFFORDABILITY £000s	OBC (before construction inflation)	OBC Addendum	FBC	Change	%
Revenue Savings	3,787	3,990	4,146	-359	-9.5
Additional Capital Charges	-2,443	-2,893	-2,655	212	-8.7
Net Revenue Impact	1,344	1,097	1,491	-147	-10.9

Further details of the comparison with the revised OBC are shown in Appendix 7.

8.8 Transitional Costs

The revenue model includes not only final costs but also a transitional five year profile of costs and savings, which therefore extends beyond the project completion date. The revenue financial model is critically dependant on workforce plans and bed management plans. Variables that require to be assessed include:

- Timing of ward closures;
- Principles for staff movements following ward closures;
- Impact of transitional costs (e.g. mismatch between workforce supply and demand);
- Impact of double running costs.

A transitional financial model has been established covering the above issues in terms of their impact on:

- Revenue costs / savings;
- Capital charges;
- Double running.

Costs have been profiled by financial quarter of the year. This is a live model which is updated on a regular basis. A summary of current plans is noted below.

	07/08	**08/09**	**09/10**	**10/11**	**11/12**
Revenue savings	(238)	(798)	(2,343)	(3,834)	(4,356)
Capital charges					
On new build	160	736	2,472	3,761	4,082
Saved	(13)	(399)	(1,442)	(1,632)	(2,203)
Subtotal	147	337	1,030	2,129	1,879
Double running	111	407	400	347	48
TOTAL (SAVING) / COST	**20**	**(54)**	**(913)**	**(1,358)**	**(2,429)**

As can be seen from the above, there is a potential net cost pressure in 2007/08 arising from additional capital charges and double running costs. This position is still being reviewed and there is potential that the capital cash flow could be further amended thus resulting in less financial pressure during 2007/08. Additionally the Hospital is currently in an underspend situation at the end of July, therefore it is anticipated that net transitional costs can be accommodated within the Hospital's wider financial plan.

8.9 Risks and Assumptions

The most significant risks which could impact on the affordability of the scheme (overall financial plan), or on the management of transitional plans, are identified below, along with their mitigation strategy.

Risk	Mitigation Strategy
Revenue implications of phasing are higher than anticipated	Transitional risk These costs are included in the double running estimates. Further services and security workshops to be held to further refine the detail of the programme.
Underestimation of double running costs during construction	Transitional risk Detailed projections of requirements are in place and regularly reviewed. Any further identified requirements could be met through use of the Board's contingency resources (recurring funds of £0.2m)
Delay to construction programme resulting in higher transitional costs	Transitional risk Contract includes provision for Loss and Expenses damages. Sound project management during construction phases with early warning of issues arising
Bed occupancy reductions do not translate to bed reductions / staff reductions	Transitional risk Detailed modelling of bed requirements and staff movements. Model already in place for women's services and will be used as basis for other service changes. The greatest risk arises from the need to effectively manage the anticipated reduction in ward-based nursing staff. Current projections are that turnover may not be sufficient to address this issue and a range of other solutions will be put in place including seeking potential alternative forms of nursing, retraining for other roles, and joint posts with other services.
Excess / Shortfall of staffing in specific staff groups during transition	Transitional risk Detailed transitional plans to be developed for management of workforce, recruitment, training, etc, between now and end point of the scheme. Workforce plan already includes an assessment of supply and demand and factors which will inform detailed plans by staff group.
Existing savings plans do not deliver savings before Redevelopment takes effect	Financial plan risk The most significant element of risk in relation to savings plans is the Joint Negotiating Committee target. JNC savings are assumed to be delivered in advance of the FBC taking effect.
Uplift funding is less than 4% annually from 08/09 onwards	Financial plan risk Should the funding uplift prove to be less than 4% annually there will need to be a reassessment of the overall financial plan. This may create a requirement for additional savings strategies to be developed.

Risk	Mitigation Strategy
There are unplanned significant costs arising from pandemic flu	Financial plan risk This risk is included in the financial plan and is currently unquantifiable. Should this risk materialise it could impact on the level of funds available to support transitional and double running costs for the FBC. Again the recurring contingency resources of £0.2m held by the Board could be available to support any additional costs.

All posts have been costed at Agenda for Change rates even although the assimilation process is not yet completed. Any risks associated with this issue will be dealt with through the Hospital's five year financial plan. Provisions and reserves are set aside for back pay issues and for the remainder of staff who have yet to assimilate.

8.10 Value for Money (VFM)

A discounted cash flow has been undertaken over 60 years using a discount factor of 3.5%. The net present cost and the cost per benefit criteria has been calculated. This has been compared with the results as set out in the OBC.

	OBC	OBC Addendum	FBC
Net Present Value			

Value for Money has improved due to a significantly reduced capital cost and a slight reduction in revenue savings. The changes are not material in overall terms.

9 PROJECT MANAGEMENT ARRANGEMENTS

9.1 PRINCE2

The principles set out in the PRINCE2 project management methodology have been used throughout the redevelopment to ensure control and quality, and will continue to be used throughout the remainder of the project.

9.2 Project Sponsor

The project sponsor is the State Hospital's Chief Executive.

9.3 Project Organization Structure

The management and organization structure comprises:

- Project Board;
- Project Team;
- Clinical and non-clinical user and advisory groups to determine models of care, output specifications, the design brief, and design sign-off.

9.3.1 Project Board

The Project Board comprises:

- Chief Executive;
- Security Director;
- Nursing Director;
- Psychology Director;
- Finance and Performance Director;
- Staff Representative (Employee Director);
- Learning and Development Director;
- Associate Medical Director;
- General Manager;
- Scottish Executive Health Department Representative;
- Project Manager in attendance.

The Chief Executive acts as the Project Executive and Project Board chair, the Security Director acts as the Project Director and the Nursing Director acts as the Senior User. The Senior Supplier (the Main Contractor) will join the Board following the tendering process.

The Project Board is responsible to the State Hospital Board for the overall direction and management of the project and has responsibility and authority for the project within the remit (the Project Mandate) set by the State Hospital Board.

The Project Board is the project's 'voice' to the outside world and is responsible for communications or other dissemination of information about the project. A communications strategy was developed at the OBC stage and this continues to be updated to shape project communications.

The Project Board consists of three roles (assigned to individuals who will stay with the project to completion):

- Executive;
- Senior User;
- Senior Supplier.

9.3.2 Executive

The Executive is the key decision maker ultimately accountable for the project, supported by the Senior User and Senior Supplier. The Executive is responsible for the following aspects of the project:

- Development and continuation of the Business Case;
- Project organisation, structure, and plans;
- Monitoring and control of progress;
- Problem referral;
- Formal closure;
- Post-project review.

9.3.3 Senior User

The Senior User is accountable for ensuring that requirements have been clearly and completely defined and that the proposed development is fit for purpose and fully meets user needs. The Senior User is responsible for:

- Providing user resources;
- Ensuring that the project produces facilities that meet user requirements;
- Ensuring that the facilities provide the expected user benefits;
- Project Assurance.

Quality control in relation to the Design Brief is the responsibility of the Project Board as part of its project assurance role. The Senior User has been delegated primary responsibility for quality assurance. As Senior User he is responsible for ensuring that the specification meets the needs of all groups (patients, staff, and visitors) that will use the Hospital's facilities. He will monitor the solution to ensure that it meets users' needs within the constraints of the business case in terms of quality and functionality. The senior user will also be involved in the post project evaluation and benefits realisation review.

9.3.4 Senior Supplier

The Senior Supplier needs to achieve the results required by the Senior User. This role will commence once the scheme has been tendered and the contract has been awarded.

The State Hospital is heartened that Skanska endorses a “one team” approach in their contracts as this is in line with the philosophy the Hospital seeks to adopt.

9.4 Specific Responsibilities of the Project Board

The Project Board has approved all major plans and authorised any major deviation from agreed Stage Plans through the agreed change control procedure.

The Project Board approves the completion of each stage and authorises the start of the next stage following review of the appropriate OGC Gateway Review documentation.

It has ensured that required resources have been, and continue to be, committed to the project.

It arbitrates on any conflicts within the project or negotiates a solution to any problems between the project and external bodies.

The Project Board’s responsibilities are set out below.

9.4.1 At the beginning of the project:

- Approving the start of the project via acceptance of the Project Brief;
- Agreement with the Project Manager on that person’s responsibilities and objectives;
- Confirmation with the State Hospital Board of project tolerances;
- Specification of external constraints on the project, such as quality assurance;
- Approval of an accurate and satisfactory Project Initiation Document, including that it complies with relevant patient standards and policies;
- Delegation of any Project Assurance roles;
- Commitment of project resources required by the next Stage Plan.

9.4.2 As the project progresses:

- Provision of all overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Review of each completed stage and approval of progress to the next;
- Review and approval of Stage Plans and any Exception Plans;

- Ownership of one or more of the identified risks, as allocated at plan approval time – that is, the responsibility to monitor the risk and advise the Project Manager of any change in its status and to take action, if appropriate, to ameliorate the risk;
- Approval of changes;
- Compliance with State Hospital Board directives.

9.4.3 At the end of the project:

- Assurance that the project has been delivered satisfactorily;
- Assurance that all Acceptance Criteria have been met;
- Approval of the End Project Report;
- Approval of the Post-Project Review Plan;
- Approval of the Post Project Evaluation (lessons learned) Report;
- Project closure notification to the State Hospital Board.

The Project Board owns the process and is ultimately responsible for assurance that the project remains on course to deliver the desired outcome of the required quality to meet the Business Case defined in the Project Initiation Document.

9.5 Project Team

The NHS's core Project Team comprises:

- Project Manager;
- Project Co-ordinator;
- Project Nurse;
- Project Administrator;
- Medical Representative (1 session per week).

Other part-time Project Team members include:

- Facilities Manager;
- Estates Maintenance Manager;
- Deputy Director of Security.

The Project Team is supported by State Hospital Finance, Risk Management, Procurement, IT and HR staff as necessary.

9.6 External Support

The NHS Team has also been extensively supported by an external Design Team (architect, civil, mechanical and electrical engineers, quantity surveyor, cost manager, landscape architect, planning supervisor etc.) and legal advisers. The State Hospital will appoint a Clerk of Works prior to commencement of the construction phase to ensure that the quality of both materials and workmanship are in accordance with the design information.

9.7 NHS Project Manager

9.7.1 Prime Responsibilities of the NHS Project Manager

The Project Manager has the authority to run the redevelopment project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board.

The Project Manager's prime responsibility is to ensure that the project produces the required facilities, to the required standard of quality, and within the specified constraints of time and cost. The Project Manager is also responsible for ensuring that the project produces a result that is capable of achieving the benefits defined in the Business Case.

9.7.2 Specific Tasks of the Project Manager

- Manage the production of all products (design brief, output specification, site master plan, room layouts, room data sheets, project contract etc.) required to allow the redevelopment to take place.
- Direct the project team including external advisers.
- Plan and monitor the project.
- Agree any delegation of the Project Board's project assurance role.
- Produce the Project Initiation Document.
- Prepare Project, Stage and (if necessary) Exception Plans in conjunction with the Project Team and the technical advisers and agree them with the Project Board.
- Manage risks, including the development of contingency plans.
- Take responsibility for overall progress and use of resources and initiate corrective action where necessary.
- Be responsible for change control.
- Report progress to the Project Board on a monthly basis.
- Liaise with the Project Board to assure the overall direction and integrity of the project.
- Agree specifications, designs, and quality strategies with appropriate members of the Project Board.
- Oversee the tendering process.

- Prepare the End Project Report.

9.8 Cost Management and Cost Reporting

Going forward, one of the principal objectives of this project is to ensure that the capped price is not exceeded. Establishing effective cost control systems and procedures is fundamental to ensuring that the project remains on budget. It is designed to be a simple process that can be readily understood and adopted by all members of the Project Team and Project Board with clear procedures and reporting dates being agreed at the outset. It will be proactive as opposed to reactive in order to give early warning of changes to the current and proposed cost profile. Monitoring of costs will be a shared responsibility between the State Hospital, Currie & Brown (acting as the employer's agent) and the Contractor (Skanska) in order to minimise variations to the contract sum.

Currie & Brown and the Contractor will produce regular, consistent and accurate cost reports that are both comprehensive in detail and presented in a manner that readily permits both status and trends to be identified. These reports will give a comparison of the present position with the control estimate. An early warning mechanism will be in place to provide not only risk identification but also value engineering opportunities.

With early stakeholder engagement this lean approach will allow the Project Team to focus primarily on delivering best value for the project.

9.8.1 Cost Management during Construction

Cost management will be carried out by Currie & Brown during the construction phase and the primary objective will be to control the project budget and to predict the timing of payments in order that the State Hospital can manage the cashflow. The key activities will be carried out in an agreed cycle:

- Monitor the cost of works carried out;
- Assess anticipated costs of any variations;
- Estimate the final account;
- Amend anticipated cashflow and provide a reconciliation of estimated versus actual expenditure.

9.8.2 Interim and Final Accounts

The works will be valued on a monthly basis for contractor's interim payments and will be based on the contract sum analysis contained within the tender. Adjustments will be made for variations instructed and carried out during the valuation period. The valuation of these variations will be on an "open book" policy with reference to contractor's costs and supply chain orders. The final account will be agreed for completed phases of the works at the earliest possible date and within the timescales set out in the Building Contract.

9.9 Claims Management

Care will be taken at both pre and post contract stages to avoid factors which give rise to contractual claims by the contractor. The main headings for contractual claims and the proposed steps to mitigate them arising, are noted below:

- *Delay in release of information* – regular meetings will be held between the Contractor and the State Hospital to identify items of outstanding information in relation to the construction programme. Dates for proposed release will be agreed together with the latest possible date which will not impact on the construction programme. The latest date will not be used as a target and all information will be provided at the earliest opportunity. This discipline will apply to information flowing from the State Hospital to the contractor and vice versa.

- *Provision of Escorts* – the contractor will identify in its programme sections of the works which will be required to be carried out under State Hospital security staff escort. A minimum notice period will be given to the State Hospital should the agreed requirements for escorts need amendment.

- *Availability of State Hospital staff* – the programme will indicate dates where State Hospital staff or their representatives are required to work with the contractor e.g. service connections/disconnections and witnessing tests. Should these personnel not be available, an agreed period of notice will be given to the contractor and alternative times agreed at the earliest possible date.

- *Delay to the regular progress of the works* – the Contractor is fully aware of all security protocols and thus all implications of security are allowed for in the contractor's programme.

9.10 Change Control and Contingency Management

During the design development stage of the redevelopment the State Hospital used the Prince2 project management methodology and, in particular, employed its change control procedure to great effect.

Change control is concerned with all aspects of managing the scope of the project objectives during project execution (i.e. during the procurement/build period). Its purpose is to ensure that any proposed changes are evaluated (regarding impact on cost, programme, and quality) and approved/rejected before being incorporated into the project plan.

9.10.1 Grounds for Project Change

Frequently cited grounds for change include:

- Omission by the user service in the original specification;
- Omission by the Project Team in the original work definition;
- Unanticipated external event;
- Unforeseeable external event;
- Request by users to make an addition/alteration to the specification;
- Request by the Project Team to make an addition/alteration to the work definition;
- Design failure;
- Personnel changes;
- New government regulations;
- New ideas being included.

The Project Team believed that almost all of the above circumstances could be avoided if all parties reviewed the schedules of accommodation rigorously and ensured that the brief and the subsequent design were as accurate and detailed as possible.

Once the schedules of accommodation and the brief were signed off all changes had to be justified through the production of a Project Issue.

A project issue is any matter that is brought to the attention of the Project Team or Project Board and requires an answer. Project Issues are evaluated in terms of impact on the scheme, effort and cost, risks, Project Plan and Business Case. All Project Issues/change requests that impact on cost, timescale, or quality have been referred to the Project Board and this will continue to be the case throughout the construction phase.

Given 1) the high degree of user involvement in setting the Design Brief and 2) that the Project Manager did not authorise any change that would have an impact on cost, timescale, or quality without the approval of the Project Board, there has been virtually no design creep following the Brief sign off.

Prince2's very formal approach to design sign-off and change control, through the use of the Project Issue mechanism, meant that there were very few occasions when the hospital had to revisit aspects of design once agreement had been reached. Given this, the State Hospital is confident that client driven changes will be minimal during the construction phases. Whilst unnecessary changes will thus be avoided, it is still possible that during the project's life the need to make some changes that involve cost will arise. Strict controls have been agreed for authorising planned expenditure and any required changes will be agreed with the hospital. It is critical that these are properly managed by Currie & Brown and the Contractor through a formal change control process.

9.10.2 Required or Elective Change

Change may be classified as either required or elective:

- Required change will arise as a result of unforeseen events (e.g. additional asbestos removal that could not be predicted). Following OGC guidance, an appropriate contingency sum has been retained to cover unforeseen changes that result in increased costs.

- Elective change is a choice and may emerge from a desire to do things differently and/or in a better way. In either case the change will be managed so that the impact of the change is known by the whole team, including the State Hospital, and informed choices are then made on the basis of full information.

The potential for change can emanate from a number of sources which include (but are not limited to):

- The Contractor, in the form of new or revised drawings/specification;
- Evolving client requirements;
- Supply chain requirements;
- Expenditure in respect of project risk items.

The potential for change will be present throughout the pre-construction and construction phases.

The effective use and implementation of change control on this project is essential to ensure that the State Hospital's requirements in terms of benefits realisation are met whilst ensuring at all times that the project remains affordable.

If, as a result of the project review process, the design is found to be developing in such a way that elements may exceed the cost plan provisions the Project Team and the Contractor will act proactively and revisit the design to reduce the cost without affecting the quality or whole life cost of the element. Where specific elements may be difficult to change or involve increases in cost, the element and the project as a whole will be subject to a specific Value Engineering Workshop to develop the optimum solution.

If through this process of review it is found that significant reductions cannot be made to bring the cost of the project as a whole back in line with the agreed outline cost plan then Currie & Brown and the Contractor will seek direction from the State Hospital. In the first instance the Project Team will investigate opportunities to reduce the scope of other elements of the project to contain costs. If this is not possible without compromising the project benefits then the Project Team will determine whether it is prudent to draw on contingency funds.

Only where authority has been received to increase an element of the cost plan will the design be allowed to proceed.

Where a change to the project scope or a variation of some element of the detail is proposed these changes will be managed under the change control process in line with the Prince2 methodology. The proposed change will be analysed by the project team, including any programme and cost implications, and controlled using the Change Control Procedure Form and Change Control Register. These documents will be tailored to suit this specific project and with be agreed with the State Hospital prior to implementation.

The cost of the change, which will include all other related implications of the change (i.e. programme interface etc), will be developed by the originator of the change and Currie & Brown, the Contractor, and the State Hospital Development Team will review the issue at the next Development Team Meeting. Only when the change has been authorised by the Team will the design be amended, the costs included in the Project Cost Plan and the change noted in the Project Change Register.

The developing design will be reviewed again by the Team at each of the remaining design stages as part of the Value Management approach and subjected to further Value Engineering and Risk Management Workshops to ensure the developed design provides the best value solution for the project. The State Hospital will be fully involved as an integrated member of the Project Development Team throughout this process. At the end of each stage the State Hospital will be required to sign-off and approve the design and cost plan developed to that stage. Only when this approval has been received will the Project Development Team progress to the next stage of the design development process.

On completion and approval of the detailed proposals stage for the second and third phases of the redevelopment, detailed design undertaken either by the Design Consultants, and/or Sub Contractors where appropriate, will be progressed to support Building Control approvals and in readiness for construction operations starting on site.

9.11 Changes during the Construction Stage

When the project moves into the Construction Stage additional works may be required or works may be deleted as a result of the following:

- Changes proposed by the State Hospital;
- Project risks, identified through the risk management process, materialise;
- Materialisation of wholly unforeseen circumstances;
- Changes proposed by the contractor or its sub-contractors.

Where, following review, the State Hospital changes are deemed to be required these will be subject to the same change control procedure set out above. Once agreed by the Project Team the change will be instructed as a variation to the project with the Design Change Register being amended accordingly.

Should project risks materialise these will initially be subject to review and assessment by the Project Team. This assessment will be used to identify what

mitigation measures are required, who is best equipped to apply this mitigation, and the cost of these mitigating measures. Once agreed, these costs will be instructed as a variation to the project with the design change register being amended accordingly.

Even though proper design development, value engineering, and risk management procedures have been diligently applied, unforeseen situations may arise that have not been catered for in the project cost plan. Should these occur the Project Team will again review and assess the design and cost implications and determine who is best equipped to deal with the issue. Once identified, these cost and mitigation issues will be agreed with the State Hospital and instructed into the project as a variation. Again, the Design Change Register will be amended accordingly.

As the works move on to site the main Contractor and its sub-contractors may look to change design details or materials for a number of reasons which could include:

- Change of material specification;
- The unavailability of materials;
- To improve buildability;
- To deal with a staging or phasing issue;
- To provide a cost benefit;
- To deal with a detailing issue.

Where such changes are proposed these will be notified to the Project Team using a Change Control Procedure form, the content of which will be assessed and reviewed by the Team at the next planned Team Meeting or sooner if required. Once agreed, these changes, which in the main are likely to result in the reduction of costs, will be instructed as variations.

By adopting this approach all members of the Project Team (which includes the State Hospital, Currie & Brown, and the Contractor and its Supply Chain) are continually involved in the project development and delivery process. This will ensure that the State Hospital participates in the developing design review process and approves and authorises the design at each of the project stages. It also ensures that the State Hospital is kept fully aware of any proposed changes to the design and approves any changes to the design and cost before they are taken forward and implemented.

9.12 Value Management

In essence, value management is about articulating what represents value in terms of project benefits and linking these to the most cost effective solutions. Value management is an integral part of the project delivery process and not a “bolt on” accessory. To maximize value it needs to be clearly articulated at the outset and delivered in the finished product. It is through recognition of this that value management strategies have been implemented to deliver best value for the project. The Project Team will work together to undertake timely value management interventions with the objective of sustaining value in the project

whilst reducing unnecessary and irrelevant expenditure. This process is currently being undertaken on the proposals received from the preferred contractor.

A further list of Value Engineering opportunities, contained within the preferred contractor's bid, have been rated in relation to 1) the priority for closing them out and 2) the current level of confidence in the proposed saving being realized.

The review of variants and the value engineering exercise is a dynamic process that will continue throughout this current stage of the procurement process and through each of the construction phases.

In order to standardise the value management / value engineering principles and procedures and ensure that they are applied with consistency, the Project Team is utilising a structured VM/VE process.

9.13 Contract Award

The contract will be awarded to the successful contractor following approval by the State Hospital Board in September and the Capital Investment Group in October.

9.14 Signing

Following the signing of the finalised contract the State Hospital will send a notice of the award to OJEU in the form of a contract award notice within 48 days.

10 RISK MANAGEMENT STRATEGY

10.1 Introduction

The State Hospital is committed to continuous risk management throughout the life of the project and understands that management of risk is an integral part of good management that will support the highest standards of decision making. The Hospital recognises that whilst risks can never be wholly eliminated it must have systems in place that allow it to understand the risks it faces and how these can be managed at an acceptable level.

10.2 Methodology

Project risks are managed in line with the overall Hospital approach to risk management, which seeks to identify, analyse, and control risks in line with the principles of the Australia / New Zealand Risk Management Standard adopted by NHSScotland.

A risk register was established for the project at the Outline Business Case stage and this continues to inform the management of project risks. Guidance has been issued to all Project Team members on the process for assessing and managing risks through the register including details of action required for all levels of risk. Risk workshops have been held throughout the project with widespread attendance including members of the project team, design team, senior managers and clinicians within the hospital, and project board members.

All risks are assessed using the standard Hospital risk assessment methodology which includes consideration of both the hazards and any benefits associated with risks, in addition to the likelihood and impact of the risk if realised. The risk scoring determines the overall level of risk, with medium being the standard residual risk level for the Hospital; anything above this would require to be escalated to the Project Board and would require to be formally accepted by them. At the assessment stage an overall risk owner is also assigned who is responsible for both ensuring a full risk assessment is completed and for managing the risk thereafter.

Once assessed, the level of risk determines the measures adopted to control the risk. If existing controls are considered insufficient then further controls are assessed in terms of their ability to control the risk.

Risks are assigned a target risk level which is achieved through implementation of further controls. Action plans are created for all risks which are above the residual risk level and progress is formally reported to the Project Team and Project Board.

The risk owners are responsible for developing action plans for the risks detailing the current control measures, noting who is responsible for these and assigning monitoring periods. Additional action required is also noted with an owner assigned and a date for completion or date for review is agreed. These action plans form the basis of updates to the Project Team and Board, with formal updates on at least a bi-monthly basis to the Team and quarterly to the Board. In addition to formal updates, Project Risks are a standing item on the Team

agenda for discussion of any new risks and issues arising from management of identified risks.

10.3 Reporting and Monitoring

Formal updates to the Project Team focus on those risks that are not at the target risk level and the Project Board are kept informed of the status of any very high or high risks on the register. An escalation process is in place whereby the Project Team can raise risk issues to the Project Board level and similarly the Project Board can refer project risk issues upwards to the Hospital Corporate risk register.

10.4 Communication with Contractors

As part of the tender process, relevant risks from the project risk register were shared with the main contractors and, during the evaluation of tenders, a review of the contractors risk registers was undertaken. Further discussions are ongoing with Skanska to ensure that there are appropriate links between the contractor's risk register and the Hospital's risk register, including agreement on any potential shared risks. The most significant risk issues identified by the contractor are in relation to ground conditions and site investigations. Discussions are currently ongoing and due for completion as finalisation of stage 3, on the potential for any additional survey work.

10.5 Maintaining Business Continuity throughout Construction

The Security Director is the lead officer for the Board in respect of Business Continuity Planning. The Hospital has an approved Business Continuity Planning Framework and has identified a set of core plans that require to be in place to maintain business continuity. Most of these plans are already in place and the remainder are due for finalisation within three months. All of these plans require regular review and updating throughout the construction period.

In addition, a sub-group of the Redevelopment Project Team will be responsible for transitional plans including the impact on Business Continuity issues.

10.6 Managing Change

The Hospital has also been realistic in identifying risks that may adversely affect its ability to manage change. The Organisational Development Group has, in conjunction with the Hospital's Risk Facilitator, completed a risk register and has taken steps to mitigate the risks that have been identified. These risks will continue to be monitored to ensure that necessary change is delivered.

11 DEVELOPMENT CONTROL PLAN

An effective development control plan is critical to allow the successful redevelopment of the State Hospital. The hospital must remain both fully secure and fully operational during the construction of major new facilities on its existing site. Given this, the development control plan is set out in four phases:

Phase 0	Enabling	• Establish temporary offices to accommodate decanted clinical activities (alternatively this activity can move to an empty ward until the development of the southern of the site) • Remove IT hub from Medical Centre • Create new IT hub in Management Centre • Decant affected clinical personnel from the proposed site area • Refurbish West Wing Hall • Establish main contractor's compound • Convert Old Education Centre to offices • Form new road junction to Lampits Road along with access road up to the boundary fence
Phase 1	Construction of Essential services and Activity Centre	• Form area for reclaimed materials and spoil heaps • Construct Essential Services Buildings and Compound • Construct the Activity Centre • Form enclosure for animals/pets • Commission the new Essential Services • Install the temporary boiler plant to the south of the West Wing Hall within separate enclosure, form connection to existing heating ring.
Phase 2	Construction of Hub and Clusters	• Form temporary access road to Tay Ward. • Alter hospital access road to come in from North. • Alter the construction fence, bubble round West Wing Hall, Management Centre and temporary boiler, cutting the site in two. • Relocate portacabins currently within the services compound • Relocate Contractor's Compound on current contractor's car park • Hospital starts to use the new Activity Centre and operate in the northern half of the site • Demolish the old service compound and other buildings within the southern half of the site • Create area for salvaged materials and spoil heaps • Construct the four hub and cluster patient accommodation buildings, the Reception Building, and the Family Centre,
Phase 3	Final works and Landscaping	• Re-use the northern site access and gate. This access point to remain in place once the hospital is operational as an emergency access point. • Alter the construction fence.

- Demolition in northern half of site.
- Re-align the main fence adjacent to the new Reception.
- Demolish the old Reception building.
- Erect greenhouses on site of old Resource Centre
- Site landscaping to the north of the site and around the entrance area
- Convert old Carer Building to Medical Records. Connect this building to biomass heating ring
- Complete external parking area and road realignment

Phasing drawings are shown in Appendix 8.

12 CONSTRUCTION PROGRAMME

The programme included in the OBC Updated Submission (May 2006) indicated that the first phase (Activity Centre and Essential Services) of the construction would be completed in June 2009 with the second phase (Ward Hub and Clusters) being completed in November 2010.

The contractor's master programme, which incorporates the variants agreed by the State Hospital, confirms that the original timetable can be met. It shows the Phase 1 buildings being commissioned and transferred by April 2009 and the second phase reaching the same point by November 2010.

A full set of the contractor's construction programmes is included in Appendix 9

13 POST-PROJECT EVALUATION PLANS

13.1 Evaluation Objectives

The State Hospital recognises the mandatory need for post-project evaluation through all stages of the project from the business case through design, management and implementation. It believes that valuable lessons can be learned from its experience and these will be shared with the wider NHS community.

The Post Project Evaluation will review:

- The process of design, construction and commissioning of the facilities;
- Actual costs against projections;
- Functional suitability of the facility;
- Problems and/or issues encountered in the implementation of the project through interviews with key staff involved in the project;
- The new facility from both operational and user perspectives.

Key questions will include:

- Was the project completed on time?
- If there were any delays, what was the cause?
- Was the redevelopment completed at budget cost?
- What were the main lessons learned at each stage of the project?
- What action would management recommend to prevent future problems?
- Are the life cycle maintenance proposals adequate?
- Does the building work in terms of functional relationships and suitability?

The State Hospital will assess the outcome against the agreed benefits criteria used to assess the project options at OBC Stage.

Wherever possible the State Hospital will measure improvement or otherwise in the operation of the new facility through the use of financial and operational performance indicators.

The post project evaluation team will be comprised of a representative group from all of the State Hospital's stakeholders.

13.2 Benefits Realisation Plan

The State Hospital recognises the need to realise the benefits that underpin the redevelopment of the Hospital and to measure the investment returns on their implementation. This will be achieved by:

- Development of a Benefits Realisation Plan (completed);
- Baselining the current clinical process and the physical environment against which to measure benefits (completed);
- Management of the new facilities to achieve maximum benefits;
- Assessing benefits realisation following implementation;
- Undertaking lessons learned reporting.

The benefits that will be delivered by the redevelopment are those outlined in section 2 above.

13.3 Benefits Realisation Review

The benefits realisation review process will track the delivery of benefits as each phase of the project becomes operational. The process will:

- Identify milestones when Project Benefit Reviews will take place (completed);
- Identify dates by which benefits will accrue (completed);
- Compare actual benefits to projected benefits;
- Establish plans for realising benefits and will document them in a benefits management strategy for the project. This will show costs offset by improved quality of service over the project's expected life.

13.4 Benefits Measurement

Benefits measurement has already been undertaken to provide a baseline. Key independent stakeholders identified project objectives and measured the current position within the Hospital to establish the Baseline Score. The same group will then review the delivery of the main benefits facilitated by the project following the implementation of each phase. Benefit achievement will primarily focus on the improvements in performance achieved by the clinical operations and changed working practices.

The State Hospital will undertake a Post Project Evaluation (PPE) to determine the degree to which the investment objectives have been met and to consider the acceptability to the end-user of the new facilities provided.

The State Hospital will undertake the PPE review within six months of the commissioning of the second construction phase to determine the extent to which the above investment objectives have been met.

14 EQUIPMENT STRATEGY

Procurement of appropriate furniture and equipment to meet the needs of the future operation of services within the new Hospital forms an important part of this project. Equipment costs for the project are included in the capital requirement projections. Group 1 and 2 equipment is included in the construction costs of the project whilst Group 3 and 4 will be procured using following the strategy set out below.

The State Hospital's Procurement Manager, in conjunction with a stakeholder group comprising members of the Project Board, the Project Team (including the contractor and the architect) and stakeholder representatives, will be responsible for ensuring that, within agreed budgetary constraints, all necessary equipment and furniture will be available for the new facilities at the point at which services transfer.

The Project Team has prepared, in conjunction with users, equipment lists which have been incorporated into the Room Data Sheets that have been prepared for every new and refurbished building on the site.

The role of the Procurement Manager will be:

- To prepare an inventory of existing equipment and furniture, identifying items, which are suitable for transfer;
- To work with the Project Team to consider the implications of the transfer and write off of equipment that will not be transferred;
- To assist the Stakeholder Group to identify furniture and equipment that meets the operational needs of the Hospital but which avoids being institutional in appearance;
- To prepare a costed proposal for the furniture and equipment procurement for approval by the State Hospital's project team;
- To procure new equipment and furniture required in accordance with the State Hospital's Standing Financial Instructions and available budgets;
- To prepare an operational commissioning plan covering ordering, receipt, storage and delivery of all equipment and furniture;
- To ensure satisfactory installation of equipment and furniture including existing items for transfer.

All equipment will be procured under the contractual arrangements for equipment using Scottish and UK wide health care contracts, taking into consideration stakeholder choices. Quotations will be received for all items prior to ordering and the Procurement Department will carry out negotiations for price reductions within the contract price structure.

15 INFORMATION MANAGEMENT & TECHNOLOGY

The Board has an approved eHealth Strategy, which was recently updated and approved in July 2007. Investment in new technology is identified as a key enabler for modernising service delivery. In essence, the secure and effective collection, storage and distribution of information are pivotal to the success of the State Hospital in supporting:

- The delivery of safe and effective patient care;
- Meeting organisational performance targets, and;
- Compliance with legislative and regulatory requirements.

The Hospital Redevelopment project is both a key driver for improvements in technology and an enabler. This FBC does not change the Board's eHealth Strategy, rather the two are complimentary. Elements of the eHealth Strategy which are pertinent to the FBC include:

- The development of an integrated Electronic Patient Record;
- Modernising the IT infrastructure.

Developing an integrated Electronic Patient Record (EPR) remains a key objective. The product and development tool kit for the national Single Record (Generic Clinical System) offers the functionality which will fill and consolidate the gaps in current system architecture. A bid has been supported to be a pilot site for implementation of the toolkit to meet the immediate EPR requirements. A supporting project is being taken forward to implement an electronic document management solution which is already live in two areas of the Hospital. Further scope for roll out is being prioritised and implemented.

Systems cannot function without infrastructure which is up to modern standards. Therefore investments are being made in modern server technology, mobile and remote working and improving the resilience of the network, operating and reporting systems. As the majority of the new estate will be new build this offers the opportunity to increase network resilience through ensuring redundancy in network cabling. This compliments the already existing approach to business continuity which is the development of a distributed network.

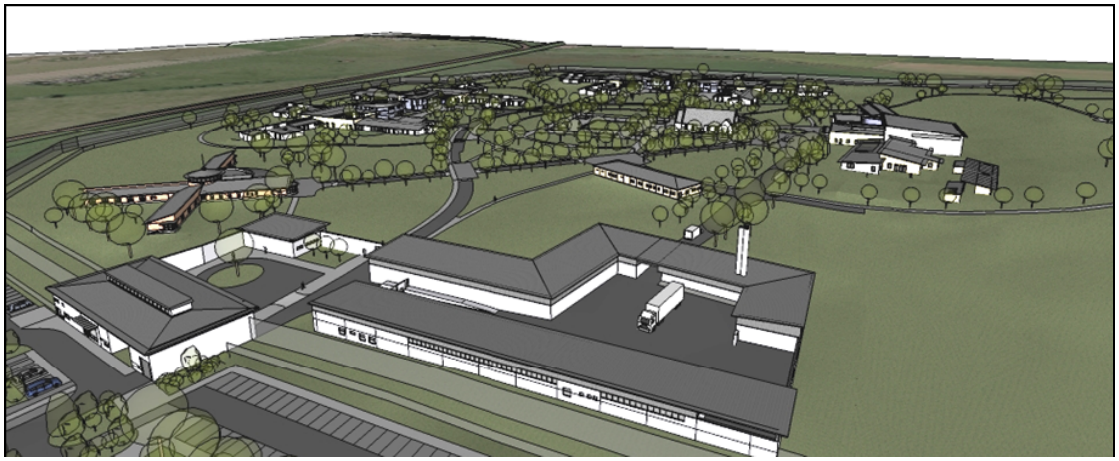
16 CONCLUSIONS AND RECOMMENDATION

The Full Business Case has focussed on, and confirmed, the need to redevelop the State Hospital. The major conclusions that can be drawn are:

- The redevelopment is affordable in revenue terms;
- The redevelopment is within OBC projected capital values (as expressed in the OBC Addendum on inflation);
- The scheme represents value for money;
- The processes used to select the contractor have been robust and well managed;
- The Hospital's service needs will be met in full;
- The risks associated with the investment are manageable;
- Both the State Hospital and the contractor can implement and manage the development;
- The necessary processes are in place to achieve a successful outcome after contract award and well-defined project management arrangements will safeguard the delivery of the project.

On the basis of the above conclusions it is recommended that approval be given to this Full Business Case and the projected capital expenditure be allocated to the State Hospital to allow implementation of the proposals.

APPENDICES



This illustration of the redevelopment is a view of the site from the east with the new Reception and Essential Services facilities in the foreground.

APPENDIX 1

WORKFORCE PROJECTIONS

APPENDIX 2

DESIGN COMMENTARY

The detailed design commentary the follows has been prepared by Macmon Chartered Architects.

APPENDIX 3

OJEU WORKS CONTRACT NOTICE

APPENDIX 4

OPTIMISM BIAS

APPENDIX 5

FB FORMS

This is commercially sensitive material and has been removed

APPENDIX 6

THE STATE HOSPITAL'S FIVE YEAR PLAN

APPENDIX 7

PROJECT SAVINGS COMPARISONS

Commercially sensitive material and has been removed from the savings comparisons

APPENDIX 8

DEVELOPMENT CONTROL PHASING DRAWINGS

Phase 0 – Capital Works
Phase 0 – Pre-Construction
Phase 1 – Activity Centre and Essential Services
Phase 2 – Hub and Cluster / Reception
Demolitions and Landscaping to Completion
Completion

APPENDIX 9

CONSTRUCTION PROGRAMMES

The detailed construction programmes that follow have been prepared by Skanska, the preferred contractor.