

Board Paper

19th February 2008

New Southside Hospital, New Children's Hospital and New Laboratory Build – Approval of the Outline Business Case

Helen Byrne, Director of Acute Services, Strategy, Implementation and Planning

RECOMMENDATION

Board Members are asked to receive this paper which details the key points in the Outline Business Case (OBC) for the New Southside Hospital, New Children's Hospital and New Laboratory Build, and to approve the Outline Business Case (OBC).

It should be noted that the OBC has been submitted to the Capital Investment Group (CIG), for consideration in late February 2008. Following approval, it will be submitted to the Cabinet for consideration in March.

Copies of the Outline Business Case are available on request.

1.0 PURPOSE OF THE PAPER

The purpose of the paper is to provide the Board with an update on the progress of the New Southside Hospital, New Children's Hospital and New Laboratory Build project. In particular: the preferred option; expected benefits; proposed procurement route; value for money; and affordability. In more detail, the content of the paper is laid out as follows:

- Section 2 – describes the reasons behind the plans for the new adult and new children's hospitals and the new laboratory build.
- Section 3 outlines the expected benefits of the scheme.
- Section 4 describes the bed modelling undertaken in scoping the new hospitals.
- Section 5 Outlines the Greenfield site Option
- Section 6 details the proposed position of the new hospitals and new lab build on the southern site and links to existing buildings.
- Section 7 reviews the options of whether the hospitals should be built separately or together as an integrated building.
- Section 8 outlines the work undertaken in developing the Public Sector Comparator (PSC) of the new hospitals and the outcome of the design option appraisal.
- Section 9 explores the other associated works planned for the Southern site in support of the new hospitals and new lab build.
- Section 10 details the options for delivering the new hospitals, new lab build and associated works.

- Section 11 describes the financial modelling; appraisal of procurement methods, and Value for Money and affordability issues: **TO FOLLOW**.
- Sections 12 outlines the timescales for the project.
- Section 13 provides an update of the planning application progress.
- Section 14 outlines the community engagement work.
- Section 15 details the outcome of the Gateway Review.

2.0 STRATEGY BEHIND THE PLANS TO BUILD A NEW ADULT AND NEW CHILDREN'S HOSPITAL AND NEW LABORATORY FACILITY

The following describes the strategy behind plans to build a new adult hospital, new children's hospital and new laboratory facility in the south of the city.

2.1 New South Glasgow Hospital

The new adult hospital constitutes the second phase of the Acute Services Review. The main goal of the Acute Services Review is to address the mounting pressures to change the way in which services are delivered by reducing the number of acute sites across Glasgow and investing in fit for purpose facilities. In more detail the New South Glasgow Hospital development is the major part of the plans to reconfigure services by reducing the adult inpatient sites from the current six hospital sites to three, by the time the new hospital opens in 2014. Two sites, Glasgow Royal and the Southern General, will have A&E and trauma facilities. The third inpatient hospital will be Gartnavel General. These acute sites will be supported by the two new build Ambulatory Care Hospitals.

The Acute Services Strategy was envisaged being implemented in four distinct phases. The first stage is well underway and involves the two new build Ambulatory Care Hospitals currently under construction at the site adjacent to the Victoria Infirmary and Stobhill Hospital site, the centralisation of cancer services at the new Beatson West of Scotland Cancer Centre built at Gartnavel General Hospital and the development of the West of Scotland Heart and Lung Services at the Golden Jubilee National Hospital, replacing facilities currently at the Western and Glasgow Royal Infirmarys.

This first phase of investment, which represents almost £350m of capital investment, will see these new facilities commissioned over the period late 2007 to summer 2009, which will result in not only significant modernisation of our healthcare facilities and creation of single centres of excellence but will result in 4 of our major adult hospital sites operating below capacity.

Phase 2 of the Acute Strategy sees the development of the new South Glasgow Hospital campus which not only sees the single biggest phase of modernisation and rationalisation of our adult clinical services, but incorporates the creation of a new Children's Hospital for the Greater Glasgow and West of Scotland populations and the completion of our Maternity Services modernisation.

On completion of the development of the new adult hospital in 2014, the Board will be able to enact the following:

- inpatient services in the Victoria Infirmary to transfer to the new development thus vacating the Victoria Infirmary site;
- inpatient services at the Mansion House Unit (MHU) to transfer allowing closure of the MHU;
- inpatient services housed in outdated buildings on the southern site to be relocated;
- transfer of Accident and Emergency services and associated beds at the Western Infirmary enabling closure of the Western Infirmary.

By 2014, following some major refurbishment and new build works within the existing estate at Glasgow Royal Infirmary and Gartnavel General Hospital, sufficient capacity will be created, following the opening of the new South Glasgow Hospital, to allow the 3 site inpatient configuration of adult services to be implemented, therefore also allowing the rationalisation of the inpatient services from Stobhill to Glasgow Royal Infirmary by no later than 2014.

Phase 3 of the Acute Services Strategy sees the major redevelopment and modernisation of the Glasgow Royal Infirmary campus and this work will be developed with a view to being brought forward for funding consideration in the period beyond 2015 followed by the final phase, which would see the redevelopment and modernisation of the retained adult inpatient services required on the Gartnavel General Hospital campus undertaken.

2.2 The New Children's Hospital

The Queen Mother's Hospital (QMH) is currently one of three maternity units within Greater Glasgow, the others being located at the Southern General Hospital (SGH) and the Glasgow Royal Infirmary (the Princess Royal Maternity Hospital - PRMH).

In April 2004, the NHSGG Board considered proposals for the modernisation of maternity services. It was agreed that maternity services should be provided from two sites, i.e. from the maternity unit at the SGH and from the Princess Royal Maternity Hospital (PRMH). The Queen Mothers Hospital (QMH) would therefore close. Closure is planned following completion of the refurbishment and new build development at the maternity wing on the SGH site, during 2009/10.

On reviewing the NHS Board's decision, in September 2004 the then Minister for Health also took account of views that the "gold standard" in delivering care in the future would be achieved by providing adult acute services, maternity services and specialist children's hospital services together on a single site. As part of his decision on maternity services, the Minister announced the provision of a New Children's Hospital for Glasgow and a commitment to make available £100 million of Treasury capital to fund this. The Minister also announced that an Expert Clinical Advisory Group would be established.

Following a review of possible options the Clinical Advisory Group led by Professor Calder, identified the Southern General campus as the preferred site to offer the 'gold standard' triple co-location allowing the children's hospital to be co-located with both maternity and adult services.

The New Children's hospital forms part of the second phase of the Acute Services Review Strategy and will allow transfer of services into the new purpose built hospital in 2013 with subsequent closure of the Royal Hospital for Sick Children.

2.3 New Laboratory Build

A review of laboratory services was carried out to identify the optimum configuration of laboratory services in Glasgow to support the Acute Services Strategy. The preferred option involves: centralising the majority of laboratory services into two main sites at Glasgow Royal and the Southern site; consolidating immunology, tissue typing, stem cell lab work and all other laboratory services associated with leukaemia research and Haemato-oncology onto the Gartnavel site co-location with the West of Scotland Cancer Centre; and finally centralising pathology and genetics services onto a single site near the Southern Campus.

A new build 5,200 square metre laboratory facility is planned for the Southern General site housing haematology, biochemistry and mortuary services. The laboratory will be located alongside the new hospitals linked via an underground tunnel.

The new build will support the New Adult and Children's Hospitals and other services south of the city. The planned model for the new laboratory development will be one of high volume processing of tests with use of automation and up-to-date integrated IT systems with extended day and 24/7 working to reflect the new patient care models.

3.0 EXPECTED BENEFITS OF THE SCHEME

The following summarises expected benefits from the New Adult and Children's Hospital:

3.1 Clinical Benefits

- The new adult hospital will facilitate the consolidation of adult inpatient services onto 3 sites.
- The new children's hospital will achieve triple co-location of the children's, maternity and adult services.

Both the new adult and children's hospitals will enable:

- Provision of high quality services which are timely, accessible and consistently available by providing local access to core medical and surgical services and consolidating specialist and tertiary services on fewer sites within the city.
- Modern, fit for purpose facilities with investment in high tech equipment and IT and attention to design and landscaping will improve the patients overall care and experience.
- Reduced waiting times for treatment through the provision of more efficient services increasing clinical capacity by investment in IT, the concentration of clinical teams onto fewer sites, optimising departmental and functional relationships and improving access to diagnostic services.
- Access to highly specialised services provided by skilled staff facilitated through the centralisation of services.

- Rapid one stop services through high volume processing of diagnostic tests and an extended working day to fit in with new models of care.
- Protection of elective workload from disruption by emergencies thereby improving the efficiency of the service and reducing the number of cancellations.
- Enhanced staff skills and knowledge through improved retention and recruitment due to a radically better working environment
- Enhanced University links through co-location of an academic centre with the new hospitals on the Southern General Campus. This will enhance teaching, and research and play a significant role in attracting and retaining high quality staff in all disciplines

3.2 Social and Economic Benefits

In addition to the clinical benefits listed above, the new hospitals will also benefit the wider area.

A social economic benefits analysis was carried out by SQW Consultants, funded by NHS Greater Glasgow NHS in partnership with a number of other contributors including Scottish Enterprise and Glasgow City Council.

The analysis looked at the potential impact on the immediate area around the Southern General site, the wider city of Glasgow and the Glasgow Metropolitan City Region. The analysis identified potential benefits within the following categories: economic, human and social capital, knowledge (e.g. research and development) and place. In more detail, the projected benefits were as follows:

Economic Benefits

SQW have estimated that the future service configurations on the Southern General site will have a combined direct, indirect and induced economic impact of between £30 and £40 million on the South West Glasgow economy; between £110 and £140 million on the city economy and between £240 and £290 million on the Glasgow City region by 2012/13.

The capital projects commissioned to build the new hospitals site will support between 1,300 and 1,700 construction jobs per year for the six years between 2008/09 and 2013/14. Capital projects will support between 260 and 340 jobs per year in South West Glasgow and between 650 and 850 jobs per year in the rest of the City.

Human and Social Capital

The New South Glasgow Hospitals development has the potential to impact significantly on the local housing market. Housing providers need to consider future provision and incentives for NHS workers to relocate to South West Glasgow and retain future wage expenditure in the local economy.

Opportunities for training and employment are significant; partners are required to tailor existing and new training/ employment schemes to meet future labour demands created by the NSGH development.

There exist a number of opportunities that should be explored further with local partners to identify potential joint developments and/ or shared use of local community facilities. For example the potential to work collaboratively with local childcare providers to develop nursery/ childcare provision accessible to NHS staff.

Knowledge

The significance of the New Hospitals Campus as a catalyst to support collaboration between academic, public and private sector partners to realise opportunities in research and development, bio-medical and life sciences has yet to be fully articulated, although they are potentially significant at all three levels.

In conclusion the Southern General development is seen as a catalyst for wider social and regeneration activity contributing to the creation of higher aspirations for the physical development of the local area.

The analysis confirmed that potential benefits will only be achievable through joint working. Significant progress has been made in building effective partnerships, for example with Scottish Enterprise Glasgow, in exploiting the economic potential, and Glasgow City Council and SPT in identifying opportunities for improving transport and accessibility. In addition the project is already connected to local project structures including:

- Central Govan Action Plan Implementation Group
- South West Employability Strategic Group
- South West Physical Regeneration Group

The analysis reinforces the need to maintain this momentum. Therefore, in consolidating existing working relationships and developing synergies with partners planning processes and land investment programmes, NHS Greater Glasgow and Clyde will establish a New Hospitals Engagement Forum. This Forum's remit will be to provide strategic leadership, as a mechanism to inform and co-ordinate partner planning mechanisms, strategies and investment to bring added value to the new hospital projects.

4.0 BED MODELLING TO INFORM THE SIZE AND SCOPE OF THE NEW ADULT AND NEW CHILDREN'S HOSPITALS

Plans for the adult hospital include 1109 beds and an Emergency Department with the capacity for 110,000 attendances per annum. The hospital will function as an acute 'hot' site with an outpatient department serving the local population and a small medical day area. The surgical day case activity will take place at the New Victoria Ambulatory Care Hospital opening in 2009.

The 240 bedded children's hospital has Emergency Department capacity for 46,000 attendances per annum. The outpatients department will see an estimated 86,000 patients per annum and the day case facility an approximate 11,000 patients per annum.

The following section describes the bed modelling work which has informed the size and scope of the hospitals.

4.1 Benchmarking with peer hospitals

NHS Greater Glasgow and Clyde (GGC) appointed CHKS (an independent clinical activity analysis service which the Board has worked with for a number of years) to undertake bed modelling exercises for both acute adult services across Glasgow and acute children's services. The objectives of the reviews were to:

- Provide an objective assessment as to the current performance of the acute adult hospitals across Glasgow and the Royal Hospital for Sick Children (RHSC) services relative to their peers;
- Identify the potential for improving efficiency in terms of use of beds and patient throughput;

- Provide a projection of future demand in 2015;
- Provide an indication as to the potential bed requirements.

The bed models would also take cognisance of better clinical adjacencies, more efficient patient pathways, projected demographics and national policy adjustments.

4.2 Adult Bed Model

Within the core specialties covered by the Adult Bed Model there are currently 3047 inpatient beds across the 6 acute sites, against which the future bed provision is considered. The bed model for the Acute Services was updated during 2007 using the 2005/6 activity, and performance information to identify the currently proposed bed model supporting the outline business case. In considering the Adult Bed Model 2005/06 data was used to consider the efficiencies to be delivered through improved performance of Glasgow's Hospitals compared to the inner city peer hospitals across the UK.

By incrementally applying the impact of,

- a) operating at best peer performance rates across each specialty;
- b) achieving occupancy rates of 85% for elective work and 82% for non-elective activity;
- c) growth in medicine and the impact of demographic changes;
- d) performance targets on current and future activity such as waiting times;

the number of beds required for the core specialties for implementation of the Acute Services Review suggests a bed model of 2912. It should be noted that this number excludes beds associated with the following services: clinical haematology, oncology, plastic surgery and burns, oral surgery, neurosurgery, homeopathy, spinal and physical disabilities.

Modelling work has been undertaken to consider patient flows and the extant strategy position of single site specialties in relation to the number of beds required in light of the future plan of 3 inpatient sites for the city at Glasgow Royal Infirmary, Gartnavel General Hospital and at the Southern General Hospital site. In addition consideration has been given to potential developments to specialist services in Glasgow and changes to patient flows from Clyde in understanding the inpatient bed capacity required across the Glasgow Acute Hospitals. This work has informed the potential bed configuration that supports the 1109 new inpatient beds in the New South Glasgow Adult Hospital.

As this is an iterative process the bed modelling work will continue and will be updated with a 2006/7 benchmarked position, which is currently being explored to consider the further levels of efficiency that could be implemented. This will be ongoing in the months and years ahead to ensure a continued focus on efficiency.

4.3 Children's Bed Model

The existing Royal Hospital for Sick Children (RHSC) has 271 beds. In addition 8 paediatric neurosurgery beds are currently provided in the Institute of Neurosciences at the Southern General and will require to be incorporated into the New Children's

Hospital. At present young people aged 13-15 (inclusive) receive in-patient and outpatient secondary care in Greater Glasgow within adult hospital services. Following the recommendations of the Kerr Report “Building a Health Service Fit for the Future” (2005), and reinforced in “Better Health, Better Care”, these patients will be cared for within the children’s hospital services. It is estimated that this group of young people accesses on average 10 beds.

For the purposes of the bed modelling exercise CHKS classified 267 out of the 289 beds in Glasgow as inpatient beds. The CHKS base line was therefore **267** inpatient beds plus the day case/short stay and psychiatry beds.

By incrementally applying the impact of:

- a) the predicted 11% fall in population base;
- b) operating at best peer performance rates across each speciality;
- c) achieving occupancy rates of 85% for elective work and 65% for non-elective work.

CHKS estimated that the total number of in-patient beds could fall from 267 to 195.

CHKS recommended a bed model of 245 beds – 195 inpatient beds supported by 50 beds reflecting a proportionate increase in day case, 23 hour and short stay beds sufficient to accommodate the required shift in practice in favour of ambulatory / short stay care models and the in-patient psychiatry unit.

Further consideration by the Clinical Advisory Board for the New Children’s Hospital on additional efficiencies which might be achieved through further enhancement of occupancy levels, increased use of short stay beds and more efficient alignment of services, suggested a bed model of 240 beds.

Therefore the proposed bed model for the New Children’s Hospital is 240 beds, although this will be reviewed throughout the planning stages of the project.

5.0 GREENFIELD SITE

It should be noted that, for the purposes of comparison for the Outline Business Case, the option of building the New Hospitals on a Greenfield site was revisited. This option was first explored in 2002 and was dismissed by the Health Board because of high cost. The outcome of 2007 work confirmed the 2002 findings in that this option will cost £1.8 billion and, in addition, require significant investment in the road and public transport infrastructure. The Greenfield Site option has therefore been discounted as outside the Board’s affordability envelope but is included in the economic appraisal for purposes of comparison.

6.0 POSITION OF THE NEW HOSPITALS AND NEW LABORATORY FACILITY ON THE SOUTHERN SITE

One of the key criteria in considering the site of the new hospitals on the southern site is the need to physically link the new adult and new children’s hospitals into both the maternity and neurosciences buildings to allow ready access to a full range of paediatric services for both foetus in utero and new born babies, and to enable pregnant mothers access to critical care and other acute services. The link between

Neurosciences Building and the New South Hospital will also allow rapid access for staff between both buildings, in particular the two critical care units

As described new build 5,200 square metre laboratory facility is planned for the Southern General site, this will be located alongside the new hospitals linked via an underground tunnel.

The site plan below shows the Southern General site as it is at present.

The Neurosciences and Maternity buildings are blocked in red and can be seen situated at the top and bottom of the plan.

All the buildings marked in red will remain on the site long term. These include, amongst others, the aforementioned Maternity building and Institute of Neurosciences, the Spinal Injuries Unit, Neurology buildings, the front section of the Medical and Surgical Block and the Langlands building. These buildings are either relatively modern, subject to extensive refurbishment or are listed. The Langlands building is a 240 bedded PFI building completed in 2001 which houses services for care of the elderly, young physically disabled and dermatology.

The buildings marked in blue are within the site designated for the new Adult and Children's hospitals and the New Laboratory build. There is a comprehensive plan to re-locate all the services within the blue buildings to other locations to allow demolition and clearance of the site by 2010.

The buildings marked in green house patient services which will transfer the New South Hospital upon completion.

It is predicted that approximately 750,000 patients and carers/visitors per annum will be accessing the southern site. Discussions have been taking place with Glasgow City Council and SPT (Strathclyde Public Transport) to develop plans to route the planned fastlink connection for the south of the city through the southern site allowing a link from the city centre arriving every 10 minutes or so on to the site, with bus stops near the main entrances to the new adult and children's hospitals.

7.0 BUILD OPTIONS – SEPARATE HOSPITALS OR AN INTEGRATED BUILDING?

An option appraisal was undertaken, this looked at the benefits, risk, costs and deliverability of building the hospitals separately or as an integrated building. The preferred option identified was an integrated build to capitalise upon: the clinical synergies; the lower risk of fewer contractors on site; decreased complexity of interface issues between the two buildings with better patient flows and streamlining of processes; better deliverability and lower build and running costs due to operational synergies.

Various options for an integrated design were developed and appraised, these are described in Section 8.2.

8.0 DESIGN OF THE PREFERRED INTEGRATED OPTION FOR THE NEW ADULT AND CHILDREN'S HOSPITAL'S – DEVELOPMENT OF THE PUBLIC SECTOR COMPARATOR

A Public Sector Comparator (PSC) was developed to allow the clinical criteria (e.g. clinical adjacencies) and footprint allowance, (e.g. circulation space), to be tested and a budget cost to be established. The PSC was also used to check the building footprint was consistent with the size of the proposed site.

In developing the PSC several key criteria were considered, these were as follows:

- the critical clinical co-locations required within the new buildings;
- the need to maintain distinct and separate identities for both hospitals through separate public entrances and distinct public faces;

- the desirability of minimal travel times throughout the hospital;
- linkage into the new laboratory build;
- the requirements to link the new hospitals with the existing neurosciences and maternity buildings which sit at opposite ends of the site;
- the need to maintain existing hospital services during construction of the new development;
- desirability of future expansion space on the campus;
- impact of the new build upon surrounding neighbours.

8.1 Clinical Adjacencies

One of the areas identified for potential clinical synergies between the adult and children's hospital is Accident and Emergency, therefore the two A&E departments are required to be side by side. Both A&E departments also need ready access to diagnostics, theatres, critical care and acute assessment.

Another key co-location is the labour suite and obstetrics theatres to the neonatal unit which, in turn, needs to be co-located with the paediatric intensive care unit. Paediatric Intensive Care must be close to the theatres and radiology.

As previously described there must be a link into the Maternity and Neurosciences buildings.

These clinical co-locators set the parameters for the development of a 1:500 block layout of the new hospitals.

8.2 Preferred Design Option

Through consultation with technical Advisors and NHS stakeholders a range of 5 options were initially reviewed, those which did not meet the full design requirements were deselected. Designs which did meet the full brief were then subject to further review and refinement until 3 preferred options emerged. All 3 options:-

- facilitated the Board's preferred phasing strategy that allows the Adult and Children's hospital and labs to be built in one continuous operation.
- placed the New Children's Hospital on the west of the site where it can link to both the existing maternity block and the New Adult Acute Hospital to create the "Triple Gold Standard" of clinical care.
- provided a first floor link to the existing theatres and critical care areas in the Neurosciences Block.
- assumed the new fastlink service will pass through the site entering from Govan Road and exiting via new entrance onto Hardgate Road.
- had a common location for the new laboratory facility and Facilities Management block in the northwest corner site.

The three options ranged from a lower flatter building with 8 floors to a progressively taller, thinner building shape with 14 floors. An option appraisal was undertaken involving the design team, technical advisers, and NHS stakeholders.

The weighted criteria against which the options were scored included; access, achievement of departmental adjacencies, journey times, flexibility and future expansion abilities, external environment (*e.g. impact upon residencies, separate identities for children and adults hospital, landscape opportunities*), internal environment (*e.g. views out of building for patient, public and staff, ease of way-finding clear segregation of visitors, patients and Facilities Management circulation*) and deliverability.

The appraisal process identified the tall thin building (14 storeys) as being the preferred configuration as it was most able to meet the above criteria.

Further work took place on the preferred option looking at alternative arrangements with regard to the positioning of entrances, and in particular the locations of the adult's and children's public emergency (walk in) entrances. The final result offered separate and distinct entrances to both hospitals, a shared blue light entrance, separate ambulatory entrances to the A&E departments of both hospitals, however, these were co-located in the event that if a user presented at the wrong entrance they could be redirected very quickly, without jeopardising patient care.

8.3 Schedules of Accommodation

Schedules of accommodation were developed with the Board's technical advisors and the Clinical Sub-Groups for both hospitals. These have been "clinically signed off" for the purposes of the OBC however, clinical re-design might lead to these being further developed during the next stage – albeit within the current cost envelope.

8.4 1:500 layouts

1:500 layouts have been designed for all hospital areas, and again these have been "clinically signed off" as meeting the clinical adjacencies described above (Clinical Adjacencies Section).

8.5 1:200 layouts

Ten key departments (5 in the new Children's Hospital and 5 in the new Adult Hospital) have been developed further to 1:200 designs. The key departments are A&E, Radiology, Wards, Critical Care and Public Concourse/Entrance for each hospital. These departments have been broadly agreed as meeting the clinical needs of the departments, and further refinement will continue in the next stage of the project.

8.6 Cost

The current PSC cost is based on the above work

9.0 OTHER ASSOCIATED WORKS

There are a series of smaller capital works associated with the new hospitals and new lab building, these being: development of two new multi-storey car parks; a new facility for clinical support services (such as offices, facilities management and clinical administration); and a 22 bedded extension onto the Westmarc rehabilitation centre for post acute amputee patients.

Glasgow University is proposing a new build academic centre near the new hospitals and an area of land on the Southern General Campus has been identified by the Health Board for this purpose.

A new combined Skills and Education Centre is also proposed, a possible location is on a site adjacent to the new hospitals.

10. OPTIONS FOR DELIVERING THE NEW SOUTH GLASGOW AND CHILDREN'S HOSPITALS, NEW LABORATORY AND ASSOCIATED WORKS ON THE SOUTHERN SITE

For the purposes of the Outline Business Case two options around the Southern General site have been developed, these are Option 1 and Option 1a. It should be noted that Option 1 is not affordable therefore the project was re-scoped to develop Option 1a.

The section below describes each option in detail.

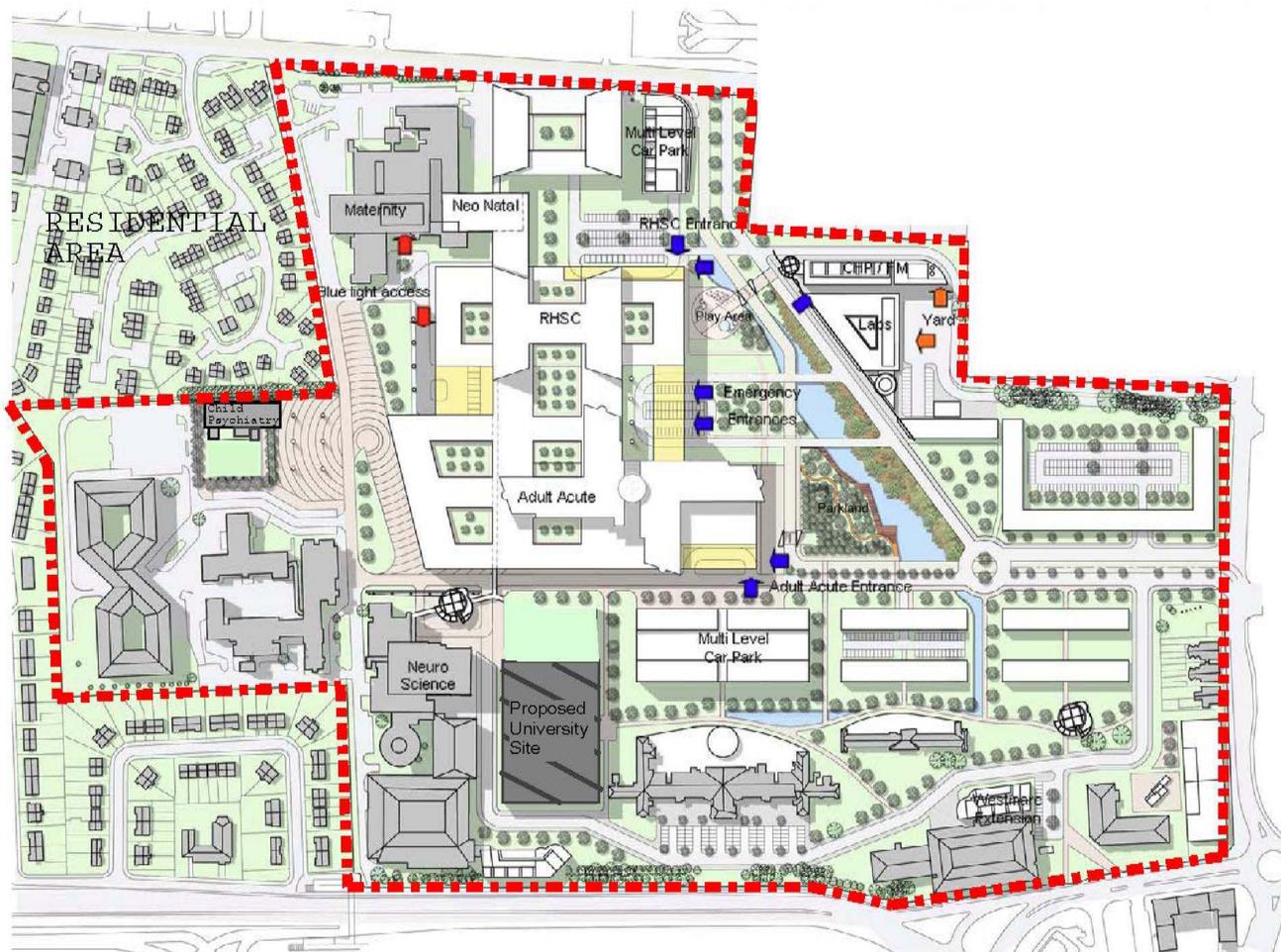
Option 1

Option 1 consists of an adult and children's hospital integrated within a single building to capitalise upon the clinical and facilities management synergies. The building will physically link into both the maternity and neurosciences buildings.

A new 17,000m² purpose built, multi-disciplinary laboratory facility is also planned. This will link into the new hospitals via an underground link and pneumatic tubes.

There are a series of smaller capital works associated with the new hospitals as previously described, to recap these are:- clearance of the build site, a number of enabling works, development of two new multi-storey car parks, a new build clinical support block, a new 22 bedded extension onto the Westmarc rehabilitation centre for post acute amputee patients and provision of land for a new academic centre.

An illustration of how the southern site will look under Option 1 is given below. The boundary of the Southern General Campus is marked by a dotted red line.



The following section describes Option 1a.

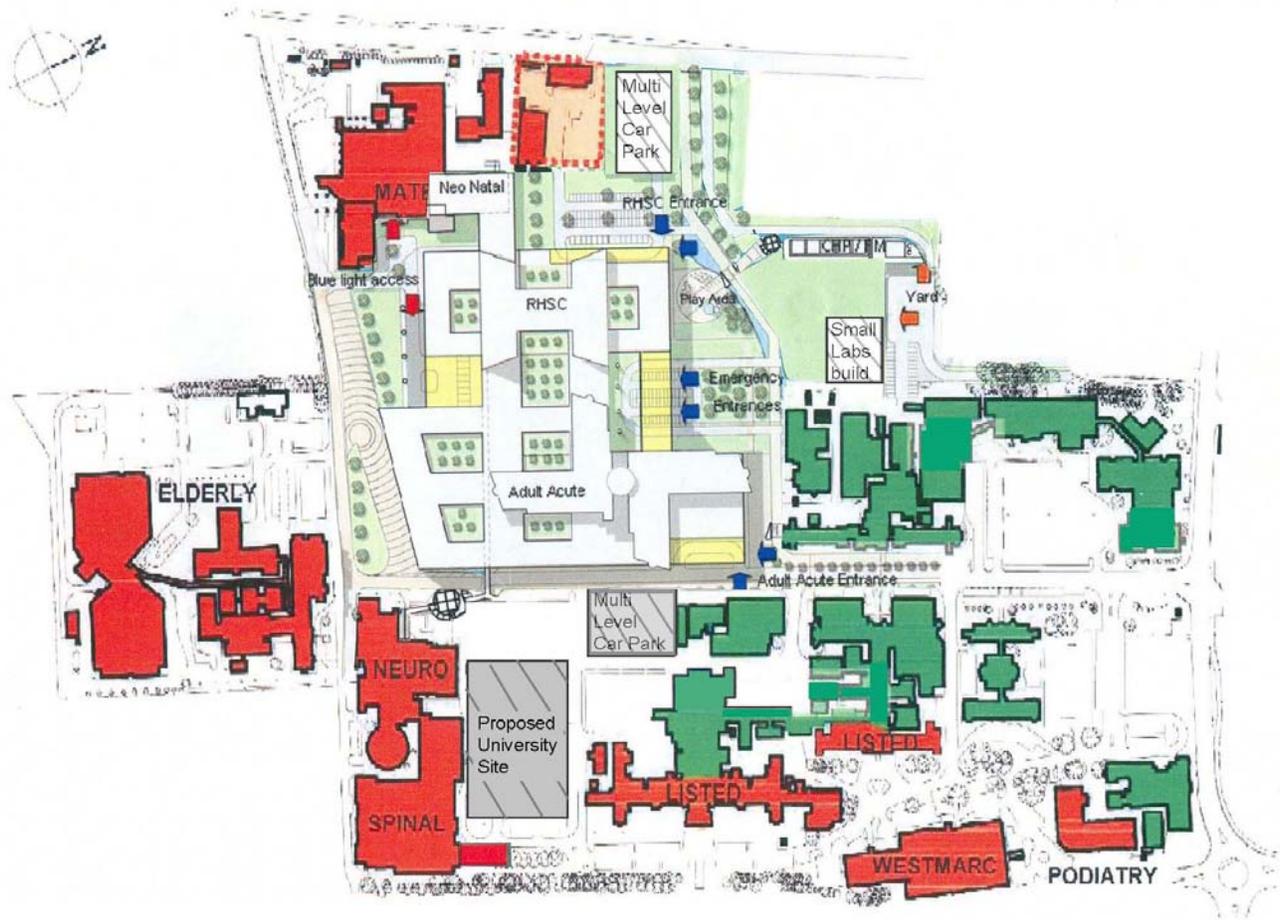
10.2 Option 1a

Option 1a consists of the planned integrated adult and children's hospital as described above. In this option however those associated works for which new builds were planned will now be incorporated into the existing estate.

In other words the green buildings shown in the plan in Section 6, which under Option 1 will be demolished will, under Option 1a be retained and reused.

In brief, the services which will be re-housed in the existing estate include, the 22 beds for post acute amputee patients and the facilities for clinical support (e.g. training, offices) and part of the laboratory services. There are plans for a smaller labs 5,200m² build housing haematology, microbiology and the mortuary services. There will also be laboratory accommodation (genetics and pathology) off site, provided by a lease agreement.

The diagram below illustrates the southern site under Option 1a.



An appraisal of Options 1 and 1a has taken place, this is described in the sections below.

11.0 APPRAISAL – FINANCIAL MODELLING, PROCUREMENT METHOD AND NON-FINANCIAL BENEFITS

TO FOLLOW

12.0 TIMETABLE TO COMPLETION OF OBC TO GOVERNMENT

The estimated timetable to achieve the appropriate approvals to enable the project to move to the delivery (procurement) stage are set out below along with the indicative timetable from approval of the Outline Business Case to completion of the integrated building. This includes the OJEU Process for the selection of the Technical Adviser, Design Team, and Contractors, and a construction period of 4 years to develop the New Adult and Children's Hospitals. It should be noted that the children's hospital is smaller and therefore will be completed before the adult hospital

Final OBC to Board	19 th February 2008
Final OBC considered at CIG	26 th February 2008
CIG approval	End of February 2008
Submit to Cabinet	Early March 2008
Final OBC Approval	End of March 2008
FBC Submission	Summer 2010
Construction Starts	Autumn 2010
Completion – Children's Hospital	Beginning 2013
Completion – Acute Hospital	Summer 2014

13.0 PLANNING APPLICATION

The Outline Planning Application was resubmitted to Glasgow City Council in April 2007. As part of the planning process NHSGG&C also submitted the Southern General Campus Plan in November 2006. Both the Council and NHSGG&C have worked together to enable the planning process to be as smooth and as timely as possible.

The application was considered at the Glasgow Planning Committee meeting held in January 2008 and received approval subject to specific conditions and the Section 75 legal agreements.

A key aspect of the outline application is the development of a transport plan which will be crucial in ensuring that the site operates as effectively as possible with the increase in staff, patients and visitors.

14.0 COMMUNITY ENGAGEMENT

NHS Greater Glasgow and Clyde established a Community Engagement team in 2002 to inform and involve patients and the public in the acute services strategy. Dedicated staff have been allocated to the new hospitals and an extensive programme of consultation with patients, carers, families is ongoing. Detailed work involving communities in Greater Govan and South West of Glasgow is also occurring. The team are working in partnership with both local and national organisations, such as Scottish Enterprise, to develop the full potential of the project for regenerating the wider area.

15.0 GATEWAY REVIEW

15.1 Background

The New South Glasgow Hospitals project is subject to Office of Government and Commerce (OGC) Gateway Review. Projects which are commission critical or deemed to be high risk projects are required to go through the six stages the OGC Gateway Review Process.

The review is an independent assessment of the robustness of the business case, that it meets business needs, is affordable, achievable with appropriate options explored and likely to achieve value for money. In doing this the review outcome highlights whether aspects of the project are red, amber or green (traffic light system).

- Red means that the project cannot proceed to the next milestone until the issues identified as identifies red are addressed.
- Amber means that the recommendations identified must be completed before the next Gateway Review stage.
- Green means that the project is in good shape but may benefit from uptake of any green recommendations to enhance the project.

The Southern General development has completed the Gateway Review Stage 1 which was carried out from 8th to 10th of January 2008. The review was carried out by a review team consisting of 2 Office of Government and Commerce Consultants and two senior technical NHS Scotland managers. During the three days of the review interviews were undertaken with 18 members of staff including clinicians, senior managers, project team, staff side representatives and finance colleagues.

This is the first time the Office of Government and Commerce Gateway Review has been used to assess a Scottish National Health Project although it has been used in non-health infrastructure projects.

15.2 Outcome of the Gateway Review

The Office of Governance and Commerce Gateway Review Team identified a number of positive aspects of the project, these are listed below.

The review confirms that:

1. The business case is
 - robust,
 - likely to be affordable,
 - achievable,
 - with the appropriate options explored,
 - and likely to achieve value for money.
2. The Project team is well established and has demonstrated an ability to draw on
 - internal skills and experience,
 - other projects throughout the UK.
3. There is considerable internal experience of major project delivery.
4. The Gateway reviewers were impressed by the consistent positive messages on the level of clinical engagement and commitment to new ways of working.
5. Project has maintained close communications with the Scottish Government at all levels.
6. There has been an open and inclusive approach to staff-side communication.
7. The project benefits from significant community engagement through the Community Engagement team.
8. It was acknowledged that Community Health and Care Partnerships are engaged.
9. It recognised the considerable effort expended in engaging with and developing support from the clinicians affected by the project.

Recommendations

The outcome of the Gateway Review was that there were no red recommendations hence the project may proceed to the Board and the Scottish Capital Investment Group with the Outline Business Case.

There were a number of amber recommendations which were identified as follows:-

Amber Recommendations:

- *The project team should ensure that the consequences of delays to decisions are made clear in all communications with the Scottish Government.*
- *The project team should take appropriate time to consider the full implications of a decision to adopt a traditional (design and build) procurement route.*
- *The project team should ensure the communications with staff-side representatives are fully understood.*
- *The project should produce a consolidated risk management register with regular review and reporting.*
- *The project team should review their draft plans for the project governance and management of the next phase.*

Green Recommendations - there was one recommendation here which will be fully adopted by the project team.

The five amber recommendations and one green recommendation will be addressed before the Gateway 2 review which is likely to take place in the summer. Immediate plans include:

- A workshop organised for mid February attended by the Boards legal and financial advisers supported by a number of technical advisers to determine the optimum conventional procurement model
- More detailed information and communication with staff side representations including continuing with internal meetings between the project managers and staff side, input into the Project Groups and involvement in how information should be more widely communicated to staff.
- Development of a fully consolidated risk register. This will amalgamate the current risk register held by the Project Team, the project risk management strategy and the technical risk register developed by the technical advisers which focuses specifically on building risks.
- The governance structures for the next phase of the project are being developed with draft proposals reflected in this document which will be subject to revision in line with the preferred Design and Build procurement model which will be identified through an option appraisal at the mid February workshop.

16.0 RECOMMENDATION

Board Members are asked to receive this paper which details the key points in the Outline Business Case (OBC) for the New Southside Hospital, New Children's Hospital and new Laboratory Build, and to approve the Outline Business Case (OBC).

It should be noted that the draft OBC has been submitted to the Capital Investment Group (CIG), for consideration in late February. Following approval, it will be submitted to the Cabinet for consideration in March.

Copies of the Outline Business Case will be available on request

9.3 Affordability of Proposal for New Adult and Children’s Hospitals In context of NHSGG&C 10 year Financial Plan

9.3.1. Revenue Consequences

A top level 10 year financial plan is set out in table 1, with a more detailed summary provided in Section 9.4. This projects the Board’s anticipated sources of additional revenue funds and likely expenditure commitments over the forthcoming 10 year period, including the additional cost commitment associated with developing new Adult and Children’s Hospitals on the Southern General site.

Table 1 **Top Level Financial Plan : 2008/09 – 2017/18**

	08/09 £'M	09/10 £'M	10/11 £'M	11/12 £'M	12/13 £'M	13/14 £'M	14/15 £'M	15/16 £'M	16/17 £'M	17/18 £'M
Forecast additional funding	74.7	77.6	79.4	73.4	75.3	77.3	79.4	81.6	83.7	86.1
Forecast expenditure commitments										
Unavoidable expenditure growth / existing commitments	92.3	105.2	80.4	78.0	74.3	76.7	79.5	83.9	86.5	88.8
New adult/children’s hospitals	-	-	-	-	-	13.0	46.5	-	-	-
General provision for new expenditure commitments	-	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Total expenditure commitments	92.3	113.2	88.4	86.0	82.3	97.7	134	91.9	94.5	96.8
Cost Savings plan (excluding Clyde)	(26.2)	(27.0)	(33.4)	(12.0)	(13.1)	(10.0)	(25.6)	(18.3)	(14.0)	(9.0)
Projected in year surplus/deficit)	8.6	(8.6)	24.4	(0.6)	6.1	(10.4)	(29.0)	8.0	3.2	(1.7)
Recurring surplus/deficit) brought forward	-	8.6	-	24.4	23.8	29.9	19.5	(9.5)	(1.5)	1.7
Projected recurring surplus/deficit)	8.6	-	24.4	23.8	29.9	19.5	(9.5)	(1.5)	1.7	-
Provision for transitional costs associated with establishing new adult/children’s hospitals	(8.6)	-	(24.4)	(23.8)	(29.9)	(8.5)	11.0	1.5	-	-
Projected net surplus/deficit	-	-	-	-	-	11.0	1.5	-	1.7	-

Notes :

- Forecast additional funding includes additional funding related to general funding uplift and excludes anticipated funding related to specific ring fenced funding provisions set aside by SGHD. The only exception to this is the specific provision established in respect of “Access to Services” where it is assumed that NHSGG&C will receive £23m over the 3 year period to 2010/11. It is assumed that this funding will be fully committed during this period.
- Unavoidable expenditure growth/existing commitments comprises anticipated additional expenditure on pays, prescribing, non-pays, capital charges, and all unavoidable service commitments already entered into for the period to 2017/18.
- The financial plan anticipates that the existing funding deficit related to Clyde is managed to a recurring financial breakeven position over a 3 year period by a combination of recurring and non-recurring cost savings and transitional funding provided by SGHD. The financial summary contained

within Section 9.4 provides further details of the Clyde financial position, showing how this features within the context of the 10 year financial plan.

4. A high level cost savings summary is provided within Section 9.4. A summary of the key assumptions which underpin the financial projections shown in table 1, including an overview of the Board's financial strategy and appraisal of financial risk, is provided below.

i) **Key Assumptions**

- A general funding uplift of 3.1% per annum has been assumed. This is set below the recently announced general funding uplift for 2008/09 of 3.2% to allow for the potential impact which NRAC implementation might have on the Board's level of general funding uplift in future years.
- A general pay uplift of 2% per annum is provided for. This is reasonable in the light of current UK government policy and reflects the significant reduction in general funding uplift which will apply from 2008/09 onwards.
- An overall annual growth rate of 6% in prescribing costs is assumed across primary care and acute care. This allows for an average annual growth rate of 5.25% in primary care prescribing costs and 8.5% in acute prescribing costs, before cost savings and other cost containment measures. This gives an overall annual rate of growth of 6% and approximates closely to the average annual growth rate experienced in past years. This can be regarded as a reasonable basis for projecting future average cost growth over a future period which extends to 10 years.
- A provision of 1.5% per annum is made for the general growth of non-pay costs (excluding prescribing costs), with the exception of years 1-3 where a reduced provision equivalent to 1% is made. This reduced level of provision in years 1-3 years is linked with the development of a major cost savings programme by the Board aimed at driving out cash releasing savings of 2% per annum on an annual basis in line with Government targets. The sustainability of this level of provision over a period extending beyond 3 years is considered unlikely and so a higher level of provision is set for the years beyond 2010/11.
- The financial plan includes all known existing financial commitments related to clinical and other services. These are presented within the section "Existing Programme Commitments". The projected step up in revenue costs associated with the new Adult and Children's Hospitals is shown within this section. This shows a revenue cost commitment of £59.5m per annum, which is the revenue cost commitment associated with the new Adult and Children's Hospitals and those related capital schemes which are funded by the Board's general capital funding allocation. Provision is also made for prospective new service commitments for 2009/10 onwards at a level of £8m per annum, split 50:50 between Acute and Non Acute Services. This level of provision will require to cover all new changes/developments which the Board is required to commit to over a ten year period, including all those national, regional and local changes/developments/initiatives which are unable to be funded by the specific ring fenced funding allocations which SGHD establishes annually to fund service change/development. This represents, in broad terms, a reduction of approximately 20-30% on the equivalent level of provision in 2008/09, however

is considered realistic in the light of increasing levels of centrally managed ring fenced funding allocation, and a reduced level of general funding uplift. It should be noted that £8m per annum is regarded as a maximum provision, and may be scaled back, as required, to offset unforeseen cost pressures which may arise.

- The financial plan assumes that the Board will succeed in developing a cost savings plan which is capable of delivering 2% recurring cash releasing savings per annum during the period 2008/09 to 2010/11. This is in line with the SGHD targeted level of savings for the 3 year period to 2010/11. The cost savings plan includes restoring Clyde to a position of financial breakeven within the 3 year period.

The Board is currently engaged in the process of developing a detailed cost savings plan for 2008/09, which is aimed at delivering £33m of recurrent cost savings, with the objective of completing this by June 2008. Thereafter the process of developing plans for 2009/10 and 2010/11 will commence. For the years beyond 2010/11, a reduced level of cost savings is assumed, with annual targets set within a range of 0.5% and 1% per annum. This comprises a number of specific areas of cost saving associated with implementation of those changes related to the establishment of new Adult and Children's Hospitals, supplemented by a general annual savings programme which equates to 0.4% per annum.

At this stage, the Board has already identified £45m within its 10 year cost savings plan, specifically related to its existing Acute Services cost base, which is capable of being released to fund an anticipated step up in annual revenue cost of £59.5m associated with the establishment of New Adult and Children's Hospitals. During 2008/09, it will work at bridging the residual "gap" in parallel with developing an overall cost savings plan for 2009/10 and 2010/11.

(ii) **Overview of financial strategy**

The cornerstone of the Board's financial strategy, and the most significant individual feature of the Board's financial plan for the forthcoming 10 year period is its cost savings programme. This dominates its financial planning for the 3 year period to 2010/11, with cost savings/containment/reduction initiatives requiring in total to generate an average of £35m per annum. This level of saving is required in 2008/09 and 2009/10 to ensure that the step up in revenue cost associated with commissioning 2 ACAD's at Stobhill/Victoria in 2009/10 is fully funded, and continues into 2010/11 as the process of building up sufficient revenue funding capacity to fund the two new hospitals, in the lead up period to their commissioning, gets underway. The scale of additional cost commitment associated with the two new hospitals, £59.5m, demands that the volume of revenue funding which is required to pay for them, is built up over a number of years leading up to the commissioning of the hospitals...otherwise the Board would be unable to accommodate the running costs of these hospitals within the envelope of its available funds, while maintaining its commitment to achieve financial breakeven.

By commencing this process in 2010/11 and continuing to target further cost savings in the years beyond 2010/11 the Board's strategy is to amass an adequate pot of revenue funding which will match the additional cost commitment which the new hospitals will

bring. The financial plan shows the build up of this funding pot over a 5 year period commencing in 2010/11. By building up revenue funding in this way, the Board will also be able to generate in the interim period the level of transitional funding it requires on a non-recurrent basis to manage through the process of establishing the new hospitals. This is capable of being covered year on year by the build up of revenue funding identified within the financial plan. The deployment of these funds year on year will be managed within the context of the Board's financial plan so that it complies with its statutory requirement to contain expenditure within its overall revenue resource limit.

(iii) **Appraisal of Key Risks**

The key areas of risks are identified below:

(a) **Funding uplift reduces below 3.1%**

The 10 year plan projects that NRAC implementation will impact on the Board to the extent of restricting its annual general funding uplift by 0.1% or £2m per annum. This assumes that a measured approach will continue to be taken by SGHD to the implementation of formulaic changes affecting Health Board funding levels, mirroring the approach taken to the implementation of the Arbuthnott formula in recent years.

It is reasonable to assume that SGHD will continue to adopt this approach in order to avoid the potential for financially destabilising Health Boards, particularly at a time when the level of general funding uplift has been set at 3.2%, a much reduced level than in recent years. Accordingly, a 0.1% funding adjustment is provided for in preparing the Board's financial plan. This is equivalent to a cumulative reduction in revenue funding of £20m over a 10 year period, a significant reduction in funding availability in the context of an overall annual general funding uplift of 3.2%. On this basis it is not considered likely that SGHD would seek to implement a further restriction on funding unless the level of future general funding uplift exceeded 3.2%, in which case it is reasonable to assume that a proportionate approach would be taken.

(b) **Annual General Pay Uplift Exceeds 2%**

This is clearly a key area of risk. For any year where the rate of general pay uplift exceeded 2% by 0.5%, without any corresponding elevation of the rate of general funding uplift, a cost pressure of £6.5m - £7m would emerge.

The Board would seek to manage the potential impact of this within the context of its 10 year financial plan by scaling back the level of funding set aside for prospective new funding commitments. This would offer scope for containing an increased level of general pay uplift of up to 2.5% for 3 years out of the 10 covered by the 10 year plan. Beyond this, the Board would have little room for manoeuvre, however it is reasonable to assume that a more frequent incidence of annual general pay uplift exceeding 2% might lead to a review of approach on pay awards which is likely to produce an equivalent change to the level of general funding uplift so that its impact was cost neutral within the context of the Board's 10 year financial plan.

(c) **2% cost savings target is not achievable in 2009/10 – 2010/11**

The sustainability of a cost savings programme, aimed at generating recurring savings of 2% per annum, over an extended period of 3 years is also a key area of risk. It is recognised that the Board is entitled to include non-recurring cost savings and credit these towards the achievement of its 2% cost savings target over the 3 year period to 2010/11, however the generation of recurring cost savings during this period is necessary on two counts:

- 1) The requirement to fund the step up in recurring cost commitment associated with commissioning 2 new ACAD's in 2009/10.
- 2) The requirement to release sufficient funds to provide transitional funding cover during the lead up period to commissioning the new Adult and Children's Hospitals.

Nevertheless, there remains the possibility that a challenge of 2% recurring cost savings per annum proves unsustainable over a period of 3 years. In the event that this proves to be the case, with up to 50% of the target proving unachievable in years 2 and 3, the Board would face a "gap" of some £30m within its 10 year financial plan. It's strategy for addressing this would be as follows:

- 1) Spread the recurrent cost savings challenge across a longer period than 2009/10 and 2010/11.
- 2) Identify and plug in non-recurrent cost savings to "fill the gap" in each of 2009/10 and 2010/11, thereby securing the achievement of SGHD's cost savings target for each of these years and preserving the required level of transitional funding.
- 3) Reduce the level of provision set aside for prospective new programme commitments by up to £3m per annum over a 9 year period. This particular funding provision might also serve as form of contingency fund to cover for the potential of reduced/delayed achievement of cost savings target(s) in future years beyond 2010/11.

By following the above strategy, the Board would seek to manage the risk of its cost savings programme either not delivering the targeted level(s) of cost savings or experiencing delay(s) in achieving specific targets within individual years. Indeed, the same strategy would also be applied, albeit more comprehensively, in the event that the Board is confronted by a combination of pay pressure and delay to the achievability of its cost saving programme.

9.3.2 Capital Consequences

A top level capital plan is set out in table 2 below. This reflects the Board's preferred option for procuring its new Adult and Children's Hospitals, which envisages these being funded by Public Capital.

Table 2**Top Level Capital Plan : 2008/09 – 2015/16**

	08/09 £'M	09/10 £'M	10/11 £'M	11/12 £'M	12/13 £'M	13/14 £'M	14/15 £'M	15/16 £'M	Total £'M
Forecast Capital Funding									
General funding allocation	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	-
Specific funding : medical equipment	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
: other schemes	14.6	11.0	4.0	3.0					
SGHD agreed brokerage	26.9	11.4							
Total Capital Funding	148.1	129.0	110.6	109.6	106.6	106.6	106.6	106.6	
Allocation of Funding									
Committed schemes	112.4	80.8	47.2	14.0	9.0	9.0	9.0	9.0	
Provision for schemes not yet committed	5.8	13.3	0.5	40.9	37.6	30.5	39.3	75.6	
Provision for minor/local schemes	15.0	15.0	15.0	22.0	22.0	22.0	22.0	22.0	
New adult/children's hospitals – enabling Schemes	14.9	39.4	28.0	7.7	13.0	15.1	6.3	-	
Less : slippage/brokerage to be identified	-	(19.5)	(5.1)	-	-	-	-	-	
	148.1	129.0	85.6	84.6	81.6	76.6	76.6	106.6	
Residue of available capital funds	-	-	25.0	25.0	25.0	30.0	30.0	-	135.0
Add : Capital Receipts	-	10.0	15.0	25.0	30.0	18.0	18.0	19.0	135.0
: Endowment Funding	-	-	-	10.0	10.0	-	-	-	20.0
NHSGG&C : total available funding	-	10.0	40.0	60.0	65.0	48.0	48.0	19.0	290.0
Proposed supplementary allocation of capital funds by SGHD (specific allocation)	-	17.5	100.8	176.3	170.4	94.9	10.8	(19.0)	551.7
	-	27.5	140.8	236.3	235.4	142.9	58.8	-	841.7
Capital expenditure... new adult / children's hospitals	-	27.5	140.8	236.3	235.4	142.9	58.8	-	841.7

The total capital funding requirement associated with the provision of the new Adult and Children's Hospitals is £841.7m. It is planned that this will be funded by combining the following sources of capital funds to create the required funding pot:

		£'M	£'M
1.	Specific provision within Board's 10 year capital plan, set aside from annual general capital resource allocations.		135
2.	Capital receipts generated from disposal of sites declared surplus		135
3.	Allocation from Board's general endowment funds		20
4.	SGHD – specific allocations of capital funds for		
	a) children's hospital	205	
	b) adult hospital	346.7	551.7
	Total		841.7
			====

The Board's capital plan provides for the capital contribution identified at (1) above to be made available out of its routine annual allocation of capital funding. This is projected to remain static over the 10 year period and so has been fixed at the 2008/09 level of £97.6m per annum. It also provides for further expenditure on enabling (preparatory) schemes totalling £88m to be funded from general capital funding...this is part of the expenditure provision shown within the "enabling schemes" category within table 2 above. Because of the heavy concentration of enabling (preparatory) schemes in the first 3 years of the plan, it has been necessary for the Board to restrict the amount(s) of capital which it is able to set aside for prospective new commitments in the first 3 years of the plan to an absolute minimum, with only £20m set aside for new schemes over a 3

year period. In addition, the amount which the Board routinely sets aside to cover minor local schemes/health and safety related schemes etc has been scaled back to £15m per annum, representing 70% of existing expenditure levels.

Even after having carried out such an aggressive process of prioritisation, the Board's capital plan is over-committed by almost £25m in total over an initial 3 year period, with the bulk of this arising in 2009/10. It is assumed that this can be managed through a combination of slippage/brokerage in conjunction with SGHD on a year by year basis, over the 3 year period. On the basis of previous experience and recognising the scale of the over-commitment, which equates to 8% of total available capital funding for the 3 year period, this should be both manageable and achievable.

It is further assumed that the Board is capable of generating £135m over a 10 year period from the disposal of sites declared surplus. This is based on a series of projections carried out by the Board's Property Advisors, based on the potential disposal of a wide range of sites including Victoria, Mansionhouse, Yorkhill, Gartnavel (part), Stobhill (part), Dykebar (part), Broomhill, among others, which are forecast to produce capital receipts during the forthcoming 10 year period. The wide range of sites which will become available for disposal during the forthcoming 10 year period provides the necessary level of reassurance that this level of targeted receipts can be achieved.

It is further assumed that the Board will be able to source up to £20m from its general endowment funds to contribute towards the capital costs of the new Adult and Children's Hospitals. With the total amount of endowment funds, currently standing at in excess of £80m, and over £30m within general endowment funds, this can be considered to be a realistic and reasonable assumption.

The final part of the capital funding package£551.7m ...represents the specific allocation of funding which is sought from SGHD and which is an integral part of the proposal contained within this outline business case. If SGHD is able to approve this specific allocation of capital funding, in line with the timescales identified within the capital plan, this will provide the balance of capital funding which is required to make the provision of the new Adult and Children's Hospitals affordable within the context of the Board's capital plan.

