



The Baird Family Hospital

and

The ANCHOR Centre

Foresterhill Health Campus, Aberdeen

Full Business Case

Addendum

September 2020

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1. Update from Full Business Case

1.1 Introduction

On 6 February 2020 the Capital Investment Group (Scottish Health and Social Care Directorate) considered the Full Business Case (FBC) for a single capital Project which includes two distinct elements:

- The Baird Family Hospital
- The ANCHOR Centre

These new facilities will be developed on the Foresterhill Health Campus in Aberdeen.

A letter dated 21 February 2020, received from Malcolm Wright Director-General Health & Social Care and Chief Executive NHSScotland recognised the following:

- *The Full Business Case was considered by the Health Directorate's Capital Investment Group (CIG) at its meeting on 6 February 2020 and the CIG is content with the progress achieved to date. The group recognises that the costs of the project have increased substantially since the Outline Business Case was approved, however they are content that you have undertaken a robust and thorough independent review of the project and they are satisfied with your conclusion that the current forecast represents the best price that can currently be achieved for delivering these essential new clinical facilities.*
- *There remain two areas of work which are outstanding – the design review needs to confirm that no changes are required to the design of the building and you need to receive a supported NHSScotland Design Assessment Process (NDAP) report. Once these two issues are resolved, then the CIG will recommend approval of the Full Business Case and the Director General will be happy to accept that recommendation.*

The two remaining areas of work have now concluded with a supported NDAP letter received on 3 July 2020 and a final design review report is due to be issued in September 2020.

The letter of FBC approval is set out in Appendix A.

This FBC addendum considers changes in the following areas, since the preparation of the FBC in January 2020:

- Project Scope
- Design Assurance
- Main commercial and contractual arrangements of the recommended offer
- Full financial implications for the Project, including the Project's overall funding and affordability arrangements
- The management arrangements in place to ensure the Project's successful implementation

During the intervening period from the preparation of the FBC a COVID-19 global pandemic has and continues to influence the Project arrangements and these are reflected throughout this document.

1.2 Investment

The following section sets out the vision for the investment for the two new facilities; these remain unchanged from that set out in the FBC.

1.2.1 The Baird Family Hospital

The development of The Baird Family Hospital (the Baird) will realise key priorities for NHSG. NHSG has recognised the importance of maternity services in particular during the past few years, leading to the creation of the Maternity Strategy and its associated recommendations.

The new hospital will provide maternity, gynaecology, breast screening and breast symptomatic services. It will also include a neonatal unit, centre for

reproductive medicine, an operating theatre suite, Community Maternity Unit (CMU) and research and teaching facilities.

The Baird will deliver on the following principles:

- facility to appropriately care for different patient groups
- provide opportunity for redesign
- plan for local, regional and national service delivery
- support women, patients and families e.g. Patient Hotel
- fit for purpose and appropriate service co-location e.g. Paediatric Surgery, Neonatal, ITU and MRI

The Baird will also support the following Operating Model:

- new service models e.g. Maternity Triage, Transitional Care
- ambulatory care as the norm
- 100% surgical pre-assessment
- 85% admission on day of surgery
- enhanced recovery
- appropriate reduction in length of stay
- increased patient choice e.g. water births
- increased recruitment to clinical trials

1.2.2 The ANCHOR Centre

The ANCHOR Centre is the next significant phase in the development of services for haematology and oncology patients, creating much needed day and out-patient treatment and support accommodation space. The new centre will be co-located with the Radiotherapy Centre and, once commissioned, both will operate as a single ambulatory ANCHOR Centre for the patients of Grampian and the North of Scotland (NoS).

The new centre will provide out-patient and day-patient investigation and treatment services for patients with cancer and for patients with blood and bone marrow disorders, including non-cancerous conditions as well as

cancers. The centre will also include an aseptic pharmacy and research and teaching facilities.

This new facility will be called The ANCHOR Centre. ANCHOR (Aberdeen and North Centre for Haematology, Oncology and Radiotherapy) is a well-respected and highly regarded 'brand', established in the NoS for two decades.

The ANCHOR Centre will provide the following service delivery environment:

- comfortable, non-threatening communal areas
- maintains dignity and privacy
- facilitates clinical trials, research and teaching
- specific provision for teenagers and young adults
- safe, efficient and productive working environment

The new facility will also support the development of working practices:

- oncology and haematology services work seamlessly to provide enhanced, streamlined patient care
- increased nurse-led clinics
- seek to improve scheduling to optimise clinical resources and improve the patient pathway

1.3 Design Assurance

1.3.1 NDAP

The purpose of the NHSScotland Design Assessment Process (NDAP) is to promote design quality and the service outcomes realised through this. Following regular engagement, on 29 November 2019, an NDAP FBC submission to Architecture Design Scotland (AD+S) and Health Facilities Scotland (HFS) was made. Following submission, HFS confirmed their intention to look at the NDAP submission in parallel with the HFS design review.

The NDAP submission from NHSG was considered in detail by HFS. Two design meetings were held with NHSG, including HFS and Health Protection Scotland (HPS), to look in detail at the Baird theatre and neonatal unit designs to ensure compliance with clinical and technical standards and regulations. These meetings concluded with minor changes to the Baird theatre design being required and no changes to the neonatal unit design. In addition, scrutiny was applied to technical aspects of design e.g. specific fire issues, these have now been successfully concluded.

A supported NDAP letter was received on 3 July 2020, the letter together with the complementary action plan is set out in Appendix B.

1.3.2 Design Assurance

In response to the recent design reviews at the new Children's Hospital in Edinburgh and the new Queen Elizabeth Hospital in Glasgow, HFS and HPS are developing a new Key Stage Authorisation Review process. This Project has therefore, as part of this new design assurance process, been subject to an external design review.

The technical review focused on the following key systems:

- Ventilation Systems
- Water Systems (Hot and Cold)
- Medical Gases
- Drainage and Plumbing
- Electrical High Voltage (HV)/Low Voltage (LV)
- Fire Strategy and Protection Measures
- Statutory Approvals, Derogations and Design Brief Items
- Healthcare Associated Infection (HAI) Matters

The review was commissioned by HFS and undertaken by AECOM; a final report is due in September 2020. It will set out a series of recommended actions.

The Project Team welcomed the design assurance review which is the first undertaken for a project not in the course of construction or operation, and the opportunity to have a comprehensive assessment of the design prior to moving forward to the construction phase of the project. The design assurance review was, in the main, a desktop review of specific design and briefing & specification documents, consistent with the review scope.

It is important to note that the project is still at the design stage and that a number of the issues highlighted in the report were already known to NHSG and clarifications or amendments to design had already been requested from Graham Construction, prior to the AECOM report being issued.

At this point in the process there are two stages of design development referred to as “Developed Design” (Stage 3) and “Technical Design” (Stage 4). The Baird Family Hospital and ANCHOR projects is currently at Stage 3 where it can be demonstrated there is a design that has been developed and coordinated in line with relevant guidance and standards. It is recognised that the coordinated design will be developed more fully in Stage 4 to allow the projects to move to construction.

Drafts of the report has been considered by appropriate technical officers, external experts, the contractor and clinical stakeholders. The design review has highlighted specific areas where the design requires to be further refined and this is already in progress through the detailed work being undertaken by Graham Construction in conjunction with the NHS Grampian project team as part of the transition from Stage 3 to Stage 4 that will ensure safe and compliant buildings are delivered for The Baird Family Hospital and ANCHOR projects. A detailed action plan in response to the Design Assurance review has been prepared jointly by the Project Team (with appropriate advice from relevant internal and external advisors) and Graham Construction, the Principal Supply Chain Partner. NHSG has categorised the findings, set out in Table 1 as follows:

Table 1: Design Review – Proposed Actions – Main Themes

	Proposed Actions - Main Themes	No
A	Matters addressed through provision of additional evidence and information during later stages – no cost impact	23
B	Matters relating to commissioning of the project which will be reflected in the detailed commissioning programme – no cost impact	8
C	Design reconciliation issue to be resolved through design development during later stages – no cost impact	37
D	Design to be updated to reflect areas where an alternative solution to current proposals is required – potential cost impact	17
E	Matters to be the subject of a derogation against standards agreed with input from professionals with relevant expertise.	9
	Total	94

The Project Board considered a report on the actions being taken by NHS Grampian at its meeting on 28 August. The report set out the proposed actions and next steps in relation to the report findings. Following review and scrutiny of the report the Project Board supported the recommendation that the project should proceed to Stage 4, construction.

A number of actions identified in the action plan will result in the modification of the contractor’s design or relate to activities planned for the construction and commissioning stage of the Project. Modification to contractual and financial arrangements have been made to support the delivery of future actions. The Project Board have put in place arrangements to monitor the delivery of the actions and the Project will be subject to further Key Stage Authorisation Reviews commissioned by HFS during the construction and commissioning stages of the Project. It is intended that the Project Board will provide regular reports to the Board’s Performance Governance Committee to assure the Board that all matters have been addressed in line with the

timescales agreed and sign off provided by a competent and experienced member of the project team or relevant professional advisor.

1.4 Revisiting The Strategic Case

The Strategic Case set out in the FBC has been revisited and remains valid. The Project is expected to provide clinical and design quality benefits which are directly relevant to the stated objectives that have been consistent through the business case process since the commencement of the Project.

The impact of COVID-19 during the past few months has necessitated the rapid temporary redesign and remobilisation of clinical services. The clinical landscape for the Baird clinical services has therefore significantly changed in recent weeks with reduction in elective activity and associated bed complement base, redistribution of the workforce and the positive experiences of increased tele-medicine to continue to provide essential clinical care and engagement with patients.

The ANCHOR clinical services have largely continued unchanged, given the nature of the service, however the benefits of technology usage such as Near Me have been realised, in addition to the appropriate use of community hubs to support clinical regimes that are then delivered on the Foresterhill Health Campus.

Following the height of the pandemic impact, NHSG is now in an interim remobilisation period which will be in place for up to 18 months. The nature of the Baird clinical services, particularly for maternity and neonatal care, are such that a return to “business as usual” is the appropriate model for patient care, albeit with the benefits of additional tele-medicine to support women and families. The breast and gynaecology services will gradually increase elective activity over the coming months.

The ANCHOR service redesign agenda will pursue any long-term benefits that can be realised by the continued use of community hubs e.g. for taking

bloods. This supporting activity will improve the overall patient experience but the specialist care planned to take place in The ANCHOR Centre will remain as planned.

The strategic principles as included in the FBC therefore remain valid for both facilities in a post-COVID environment. The designs have benefitted from significant patient and staff input and the flexibility included will allow for appropriate service redesign and, in addition, practical readiness for the facilities to be valuable assets to NHSG in any future pandemic event (e.g. single bedrooms, enhanced spaces that conform to modern standards, different entrances that can support pandemic flows etc).

1.5 Revisiting The Economic Case

The Economic Case set out in the FBC has been revisited and remains valid.

1.6 Update The Commercial Case

The Project is a health project with an investment cost in excess of £230 million. It is to be funded by means of a SG capital budget allocation and procured under the NHSScotland Frameworks Scotland 2 (FS2) arrangement.

The contractual arrangement uses the FS2 Frameworks Agreement New Engineering Contract 3 (NEC3) Option C contract. The construction stage contract has been developed and modified, with appropriate professional advice, to reflect its scale, complexities and risk. The contractual arrangements have been further modified since the FBC as follows:

COVID-19 and Future Pandemics

Recognising COVID-19 will impact on the cost and time associated with safe delivery of construction works, revised arrangements have been developed. These have been informed by the guidance issued by the Remobilising Construction Short Life Working Group set up for Framework Scotland 2.

The arrangements have been developed by NHSG, Cost Advisor (CA) and the PSCP with advice and support received from Central Legal Office (CLO) and HFS.

The approach adopted has the following features:

- Pre-COVID Target Price with first period of activities incorporated in the Target Price and client risk allocated for remainder
- An overall capped amount for Compensation Events covering the first stage of programme
- Contractual reliefs for track and trace stand down and changes to current guidance

The PSCP contract has been amended to address the impact of COVID-19 by the inclusion of a new compensation event. Due to the uncertainty associated with future time and cost impact on the contract, this new compensation event will be treated slightly differently from the standard compensation event mechanism under NEC3 Frameworks Scotland 2 with underpinning with defined assumptions and a two monthly cycle of assessment. Central Validation of COVID-19 Related Costs and Programme.

Design Assurance – NDAP and Design Review

The Employers Works Information within the contract has been modified to ensure actions that arise from the design review and NDAP are appropriately incorporated.

Updated Tender Price

The tender price that formed part of the FBC has expired and a revised Target Price submission has been received from the PSCP. It has resulted in an increase to the Project forecast and is reflective of the risk of delay outlined in the FBC i.e. additional risks including loss of supply chain and inflationary cost pressures and costs associated with COVID-19 operating requirements.

Based on the outcome of the CA review as reported in Appendix D, the proposed course of action is to proceed with the current Target Price submitted. This will result in an increase in the Project forecast from £223.6 million reported in the FBC to £233.2million.

NHSG will continue to work with the CA and PSCP to deliver any further cost efficiencies that might be available including the use of the payment mechanism, i.e. the PSCP is paid Defined Cost plus Fee Percentage (i.e. actual cost of labour, plant, materials and sub-contract work plus a fixed percentage for overhead and profit) but only up to the ceiling price of the Target Price. Efficiencies are also incentivised under the contract with savings that are generated against Target Price, up to 5% below the Target Price, shared on a 50/50 basis between client and contractor.

Updated Programme

Table 2 below outlines the key programme dates for the construction phase of the Project assuming FBC approvals are in place allowing instruction to proceed to be issued by the end of September 2020.

Table 2: Project Programme

Construction Milestone	Current (Sep 2020)	Per FBC (Feb 2020)
Stage 4 appointment of PSCP	September 2020	February 2020
Stage 4 appointment of PSCs	September 2020	February 2020
Construction Commencement	November 2020	May 2020
Construction Completion - ANCHOR	January 2023	May 2022
Bring into Operation - ANCHOR	March 2023	July 2022
Construction Completion – Baird	August 2023	November 2022
Bring into Operation - Baird	November 2023	March 2023
AMH Demolition	April 2024	May 2023
Contract Completion	April 2024	May 2023

Table 2 outlines the key programme dates outlined the FBC in February and the updated programme presented as part of the FBC addendum. This programme features 23 weeks of programme elongation and 25 weeks of programme delay associated with work to undertake the external design review discussed earlier and the impact of the COVID-19 Pandemic.

The updated construction stage programme forms Appendix G. It has increased by 23 weeks and are a consequence of the following:

Table 3: Reasons for Changes in Programme

Movement Reason	Period
Additional Christmas	2 weeks
Helicopter Stoppages	2 weeks
Additional decant period from 9 - 12 weeks for AMH	3 weeks
Asbestos surveys not carried out in decant period	6 weeks
Additional terminal float associated with risks	4 weeks
Additional time to remobilise, hydro seed	6 weeks
Graham Construction Assessment of programme increase	23 weeks
FBC Programme	156 weeks
Updated Programme	179 weeks

1.7 Update The Financial Case

The Financial Case reflects the full financial implications of the Project and has been updated to reflect the revised tender price and programme.

The specific approval as part of this business case relates to the following investment in Table 4 and the updated total investment required is £233.2m.

Table 4 (FBC): Summary of Capital Investment for Approval

	Current	FBC
	Total	Total
	£000s	£000s

Construction Related Costs	216,168	206,623
Furniture and Equipment	17,000	17,000
Total Investment	233,168	223,623
Sources of Funding		
SG Additional Capital Funding	233,168	223,623
Total Sources of Funding	233,168	223,623

Further details are set out in Appendix C.

Construction related costs have increased by £9.5 million (4.6 %) from the budget estimate contained in the FBC (January 2020). The budget estimate was based on contract value based on market returns with a construction commencement in May 2020, this has now been revised to November 2020.

The scope of the project has not changed, the reasons identified for the cost increases are:

1. **Inflation (£2.5m)** a consequence of the delay in commencement of construction
2. **Revised market returns (£1.2m)** as a consequence of both the delay in commencement and preferred sub-contractors no longer being available a number of market returns have had to be re-priced
3. **Risk (£2.1m)** a number of factors have resulted in the re-pricing of risk provisions as the context in which the project will be delivered has changed
4. **Additional design refinement and clarifications (£0.8m)** as a consequence of developing technical and clinical requirements the design has been refined
5. **Changes to be instructed as a consequence of independent design assurance review (£0.7m)** a number of changes will be incorporated into

the final design as a consequence of pursuing actions arising from the findings of the review

6. **Elongated programme (£1.3m)** the construction programme has been increased as a consequence of the remobilisation period, additional risks and programme refinements in relation to the demolition of Aberdeen Maternity Hospital
7. **COVID-19 (£0.9m)** as a consequence of COVID the tender price for the contractor will increase by £0.6m, these costs largely relate to creating a safe operating environment on site for the first period (29 weeks) of construction. Additionally provisions of £0.3m, have been made within the NHS Grampian's risk allowances for a potential further period beyond that priced by the contract of enhanced site arrangements and also contractual reliefs associated with track and trace stand down.

No increase in equipping cost forecast has been identified.

The risk of COVID-19 restrictions continuing beyond the first period of construction (to November 2021) has been considered by the Project and cost estimates prepared by the CA, these do **not** form part of the costs set out in Table 4 above and should the scenarios set out in Table 5 below be realised then additional funding would be required.

Table 5: Potential Impact of COVID-19 Not include in Project Forecast

	Program me Elongati on	Safe Operatin g Environ ment	Supply Chain Costs Labour and Material	Total
Scenarios	£000s	£000s	£000s	£000s
Scenario 1: Current restrictions apply for duration of project (any delay mitigated)	0	1,053	6,625	7,678
Scenario 2: Restrictions apply for duration of project	6,695	1,498	6,625	14,818

(restrictions result in programme elongation 25%)				
2 nd 12 week lockdown, project classed as non-essential site	1,586	0	0	1,586

The programme delay has elongated the duration that the NHSG Project Team are required, resulting in an increase in Project Development Costs (£0.5m).

New facilities will attract additional recurring running costs. These continue to be as set out in the FBC, albeit the first full year of operation will move to 2024/25.

The anticipated cashflows associated with the Project are set out in Appendix E.

NHSG is committed to the Project and, subject to the provision of additional Scottish Government funding in relation to the construction costs, depreciation and equipment, all revenue and capital implications of the Project will be reflected in the financial plans of the Board.

1.8 Update The Management Case

Management arrangements are in place to ensure the Project's successful implementation.

As reported in the FBC, the Project resources are currently being reviewed to make sure they are appropriate to address the complexities of the construction phase.

In addition, the risk register associated with the Project has continued to be managed and updated dynamically, this is reflected in Appendix F.

1.9 Conclusions

This FBC addendum confirms that:

- the Project scope and preferred options set out in the FBC remains valid
- external design assurance appropriate for this stage of the project have been undertaken and findings will be addressed appropriately in the delivery of the Project
- NHSG has undertaken a process with expert advice to confirm contractual arrangements and that the updated price continues to be broadly representative of the cost of the Project in the current market
- confirmation of further SG funding is required for the Project to proceed. NHSG will continue to work with the CA and PSCP to deliver any further cost efficiencies that might be available
- Updated management arrangements have been developed to ensure the Project's successful implementation

As set out in the FBC, these new facilities will be key enablers to allow a significant redesign of NHSG clinical services, improving not only the quality of care patients receive, with many able to be cared for on an out-patient or day-case basis, but also delivering efficiency benefits from the improved flow of patients throughout the buildings and the wider hospital environment in NHSG.