NHS
North West Anglia
NHS Foundation Trust

HINCHINGBROOKE HOSPITAL MAIN THEATRES

FULL BUSINESS CASE

30 July 2021

V14 Final

Contents

1 Executive Summary

1.1 Overview

This Full Business Case (FBC) seeks approval for urgently needed capital investment of £30.14 million in new Main Theatres at Hinchingbrooke Hospital. This funding relates to a successful Wave 4 bid from the Sustainability and Transformation Programme in July 2018 (awarded December 2018).

The capital and funding requirement has increased since the approved OBC, but still remains within affordable parameters. The project's capital cost is £30,136k (including VAT), an increase of 9.8% since OBC. Wave 4 capital funding of £22,768k will be supplemented by £7,368k ICS capital sourced via an emergency capital application. This is detailed in the Economic Case Section 3.10 and Financial Case Section 5. ICS support for the project is set out in Appendix 2d: Letter of Commissioner & ICS support.

The Trust is also seeking early drawdown funding in quarter 2 2021/2 (reference Section 1.4) which includes £794k to meet planned enabling costs relating to the reprovision and demolition of Woodpecker Lodge which is located on the proposed site of the new Main Theatres facility. The building is beyond its useful life and will need to be re-provided irrespective of the Main Theatres scheme.

This project is Phase 2 of a wider Development Control Plan (Phase 3 – reference Appendix 2a: Development Control Plan) for the Hinchingbrooke Hospital site which has been developed alongside this vital element for the future of the Hinchingbrooke site. Phase 1 was expansion of Urgent Care was completed on time and within budget in November 2020.

The Main Theatres are currently located within RAAC panel facilities which need to be replaced as soon as possible because of the structural safety issues associated with RAAC panels. This urgent and compelling case for change is described in the Strategic Case of this FBC. NHSEI requires all RAAC panels be removed by 2035.

The preferred option, Option 1: Do Minimum delivers the re-provision of the 7 existing Main Theatres within a new purpose-built facility that joins to the first floor on the Main Hospital and is linked to the current Elective Treatment Centre. This will provide a fast route to the Obstetric Theatre from the Labour Ward and with a vertical adjacency to the Critical Care Unit. The preferred option, Option 1: Do Minimum, incorporates:

- A new Main Theatre building which comprises:
  - A ground floor which is earmarked for future fit out for non-clinical administration or support services. Funding for this fit out does not form part of this business case. The space does not lend itself to clinical services because it is a deep planned with constraints on patient flows and clinical adjacencies at ground floor level.
  - First floor. 7 new theatre suites incorporating an admissions area, recovery and staff support spaces including staff change areas and MDT room. One theatre within the Main Theatres building will be dedicated to Obstetric Surgery. Three of the theatres are laminar flow. The new Mains Theatres Building will be connected to both the main hospital building and PFI Treatment Centre to facilitate the smooth transport of patients and staff.
  - Flat roof – external plant accommodation.
- Relocation of existing buildings on the new build site including.
  - Demolition and removal of Woodpecker Lodge (administration) and Staff Change facility.
  - Removal of 51 parking space. Trust will implement its Green Travel Plan and therefore spaces will not be re-provided (Section 4.16 of the Commercial Case).
- Enabling incorporates the development of a new
  - Modular building for Staff Change facilities.
  - New modular stores adjacent to Elm Ward.
  - Reprovision of Woodpecker office accommodation within existing, refurbished facilities elsewhere on the Hinchingbrooke site, taking into account the impact of agile working.

The capital costs of fitting out the shell space on the ground floor within the Main Theatres facility for potentially non-clinical use will be evaluated and developed in future as part of Phase 3 wider hospital redevelopment.

The Preferred Option 1 Do Minimum will provide the following:

- A Main Theatre suite of 7 theatres with suitable patient flows, developed with user requirements and inputs and in accordance with HTM guidance and best practice.
- Air handling as appropriate to operating theatres, including both laminar flow and conventional ventilation systems, and giving the correct and robust compliant air changes required.
- A design thoughtfully produced with enhanced patient experience and more efficient and effective patient flows in mind and in conjunction with user requirements and inputs.
- Areas compliant with Department of Health and Social Case Health (DHSC) Building Notes (HBNs) and Health Technical Memoranda (HTM)s except a limited number of agreed derogations (reference Section 4.6.9).
- Areas have been fully signed off by users and Infection Prevention and Control.

- Designated and HTM compliant plant areas.
- A shell and core ground floor to provide space for future provision of non-clinical services.
- Appropriate and robust IT and telephony infrastructure and cabling.
- Structured enabling works plan to re-provide displaced services.
- BREEAM excellent and assessment score of 80.6% (reference Table 1-11).
- Design which delivers the NHS Net Zero Carbon policy (reference Table 1-11).
- Modern Methods of Construction assessment score of 71% (reference Section 1.12.5).

The Business Case builds on the Wave 4 STP Bid (in lieu of a Strategic Outline Case (or SOC)). The Wave 4 Bid was approved by the Trust Board on 9 November 2018. It was then submitted to NHS England and NHS Improvement (NHSEI) and the Department for Health and Social Care (DHSC). On 14th December 2018, the Trust received notification that its STP bid had been successful (reference Appendix 2h: STP Letter of Support 2018).

Checklists have been completed in Appendix 2b: Completed Fundamental Criteria & Estates Checklists and Appendix 2n: Completed NHS I Checklist.

The requirements and conditions set out in the OBC approval letter dated 23 April 2021 have been met and the Trust's response set out in Appendix 2c: OBC Requirements & Conditions.

1.2 Changes since the approval of the OBC reflecting the FBC Preferred Option

The OBC was submitted to NHSEI in December 2021 and reflected Stage 2 design development (using Procure22 (P22P)). Work has progressed on the Stage 3 Design process in conjunction with the Trust's P22 Principal Supply Chain Partner (PSCP). A number of changes have been made since the OBC was drafted, the most significant of which are described below:

- Enabling Works. At the time of the OBC submission, an assumption was made that 100% of the staff office accommodation within Woodpecker Lodge and the Staff Change Facility would be dealt with through agile working. The only enabling works costs would therefore be the reprovision of the Staff Change facility through a modular development. Since then, a comprehensive workspace utilisation and agile working exercise has been undertaken. This has reduced the need for staff offices by circa 11%. There are costs associated with the need to refurbish this accommodation and the works have been factored in to the scheme capital costs.
- Roof Plant. Within the OBC, assumptions were made in relation to the proposed plant solution based on the information available at the time and prior to the detailed work being undertaken in relation to BREEAM and Net Zero Carbon. Since then, the level of design development and work on BREEAM and Net Zero Carbon has progressed and this has necessitated a significant increase in the number of photovoltaic (PV) roof panels required, with a consequent need to increase the supporting substructure. These panels also need to be appropriately supported. The proposed roof plant solution is compliant with the current HTM guidance.
- Foundation Strategy. The OBC was developed prior to undertaking the Geotechnical Survey. Whilst the survey results have ruled out the need for piling, they have identified the need for increased size of foundations pads which adds to time and cost.
- Service Diversion. The Geotechnical Surveys undertaken since the OBC has suggested more underground service diversion work is required than originally anticipated.

1.3 ICS / Commissioner support.

The Cambridgeshire and Peterborough System (C&PICS)/ Cambridgeshire and Peterborough CCG have approved this FBC and a letter of support in Appendix 2d: Letter of Commissioner & ICS support confirms system and CDEL cover for the Trust's contribution. The breakdown of costs is detailed in the Economic Case Section 3.10 and Financial Case Section 5.

The Trust Board approved this FBC on 10 August 2021 and a minute is attached in Appendix 2m: Trust Board Minute.

1.4 Early drawdown of funding

The Trust intends to commence construction in the shortest time possible given the urgency of the RAAC panel issues affecting the area of the Hospital where the current facility is located.

The early drawdown of funding in quarter 2 2021/22 incorporates.

- Enabling Works for the reprovision of Woodpecker Lodge. This facility is at the end of its useful life and would be replaced regardless of whether the Main Theatres scheme were to progress.
- Fees for the development of the FBC.

A summary of the enabling costs and fees that form part of the early drawdown are illustrated below and set out in section 4.8.4 of the Commercial Case.

Table 1-1 Summary of Early Drawdown Costs

Cost Element	Cost (£'000k)	VAT (£'000)	Gross (£'000)
Total Enabling Costs	£1,592	£318	£1,910
Enabling Costs to be funded post-FBC Approval	£ (930)	£ (186)	£ (1,116)
Enabling Costs covered by Early Drawdown (a)	**£662**	**£132**	**£794**

FBC Fees	Cost (£'000)	VAT (£'000)	Gross (£'000)
Total Trust FBC Advisory Fees	£292	£58	£351
Total PSCP FBC Advisory Fees paid by the Trust	£925	£185	£1,110
Total FBC Advisory Fees (b)	**£1,217**	**£243**	**£1,461**
Total Funding Request (a+b)	**£1,879**	**£376**	**£2,255**

The breakdown of total enabling costs and fees is shown in Section 4.8.4 of the Commercial Case.

1.5 Strategic Case

1.5.1 National and local strategic context

The Strategic Case sets out the National and Local Strategic Context and aligns this project with key priorities.

Locally, the FBC addresses the priorities for the Cambridgeshire & Peterborough ICS, in particular, its 'supported delivery' priority in which there are plans relating to the better use of land and buildings.

The relevant elements of this priority are:

- Bringing NHS sites up to modern standards.
- Getting more value from land and buildings and bringing sites up to modern standards.
- Finding opportunities for new strategic partnerships in relation to building in the local area.

Population growth has been a consideration and although this project is a re-provision of current Main Theatres, the new facilities will support extended hours of operation in the future. The placement of the new Main Theatres is consistent with the long-term site redevelopment plans.

1.5.2 Case for change & issues preventing refurbishment

Currently, Main Theatres are located in the 'Best Buy' area of the Hospital site. This area is built using RAAC panels.

The integrity of RAAC panel constructed buildings has been compromised due to failing concrete and cracking and movement within these type of buildings. NHSEI has issued a requirement for survey of these panels with instruction to health bodies to remove all RAAC panels completely from NHS sites by 2035.

Plank deflection issues can result in long term creep of the plank on the supporting lintel potentially leading to collapse. Other factors resulting in failure include:

- Longitudinal reinforced steel bar being of an inadequate length.
- Cut planks on-site with no transverse reinforcement at plank end (dependent upon where the plank is cut).
- Short end-bearing on supporting walls.
- Very high span/depth ratios.
- Poor aggregate mix, resulting in shearing of the planks and collapse.

Each of the above facets may contribute to one of the two ways in which the planks can fail:

- Under excessive load - this is preceded by bending (deflection).
- Deterioration of the edge of the plank that bears on the supporting concrete beam, causing it to fail.

Refurbishment of theatres is not a viable option because:

- It would not fully eradicate the RAAC panels and therefore the risk of structural failure would remain.

- Reinforcement of RAAC panels is not an option as the structure is failing with steel supports not providing a suitable option due to the clinical environment and existing lack of space for efficient patient, staff and goods flows.

Failure to meet HBN standards on space requirements.

- Annual surveys will need to be undertaken and in addition, plant will need to be stopped for the duration of the work (6 months) with no assurance that it will fully function again or even start due to its age (see next bullet).
- The existing plant is old, non-compliant and cannot provide any assurance in relation to continuity of service due to the risk of failure. It would be extremely unlikely that any long-term solution could be achieved by replacing the plant through a refurbishment scheme.
- Upgrading plant is not an option in the current theatres' location as:
  - There is insufficient space in the current plant room to house the new larger plant that would be required.
  - Plant could not be located on the roof due to load and inability of the roof to cope with the weight.
  - Plant could not be located on the ground floor due to the weight of the ducting required to drop down into the theatres and the inability of the roof to hold the weight.
  - A steel structure or similar would need to be built above the existing theatres to house the plant meaning crane oversailing, disruption to the existing service (this could not be carried out safely with operating still taking place and would entail an extended build period with the associated theatre downtime (18 months estimated).
  - Should an additional structure be built to accommodate plant and/or ducting, there is a high risk of penetration due to piping, ductwork etc of existing RAAC structure causing further compromise and loss of integrity.
- Does not achieve Investment Objectives and Critical Success Factors.

The Trust has prepared a Development Control Plan (DCP) (Appendix 2a: Development Control Plan) to establish the long-term plans for the site and the eradication of the RAAC panel areas was a high priority in the process of development of the OBC and FBC. The DCP shows clearly that this area of the Hospital should be demolished in line with expectations from NHSEI for eradication of these panels. The DCP was approved by the Trust Board in 2020.

1.5.3 Investment objectives

The project investment objectives are set out in Table 1-2.

Table 1-2 Investment Objectives

Investment (Spending) objective	How will this be measured? (SMART)
Provide sufficient capacity for estimated population growth over the next 10 years	The investment will ensure that the anticipated increase in population across the county between 2023 and 2032 can be accommodated. Although there are no additional theatres planned, the re-provision is in line with the Healthcare Planner's report indicating a requirement for 7 theatres and the following risks of possible lengthy service downtime which will need to be mitigated: • Reduce to a minimum the risk of any downtime through non-working plant. Currently, this will be two theatres lost per one non-working AHU. • Reduce the risk of intrusive surveys of up to 6 months where ceilings will need to be removed to survey RAAC panels. • Provide enough space for more efficient patient, staff and goods flows. • Increase working hours with longer days and weekend working where necessary to accommodate growth in population on top of the risks mitigated through the provision of new theatres.
Invest in infrastructure to ensure a safe environment for the population and staff	Completely remove the risks associated with the RAAC panels Ensure 7 working theatres through mitigation of likely failure of outdated plant and replacement with plant that is compliant with relevant DHSC HBNs and HTMs except a limited number of agreed derogations.
Maximise opportunities for estate development and asset optimisation	Theatres should be located in an area which facilitates implementation of the Trust's wider plans for the Hospital site and the Trust's Development Control Plan (DCP)
Develop assets which enable the delivery of clinical strategies	Ensure infrastructure is in place to provide flexibility to deliver the Trust's clinical strategies, i.e., there may be a need to extend operating hours within Main Theatres and therefore the infrastructure needs to be in place to ensure maximum flexibility.

1.5.4 Project constraints

The main constraints associated with this scheme are as follows:

- The Trust will need to deliver the scheme whilst maintaining the quality and level of services.
- Patients, staff and visitors will need to access to the Hospital site during construction.
- Due to activity ceasing during the COVID-19 pandemic, the Trust now has additional waiting list pressure for all elective activity in respect of the 'catch up' now required, placing increasing importance on the need to maintain theatre capacity.
- The Trust needs to move Main Theatres to a new location on the Hinchingbrooke site due to major issues with RAAC panels.
- The Trust has limited capital available from Wave 4, and therefore any increases need to be managed within the Trust programme as part of the ICS CDEL envelope.

1.6 Economic Case – Short Listed Options

The Trust re-affirmed the short-listed options in the OBC during the development of the FBC.

1.6.1 Short-listed options

The three short- listed in the Economic Case are shown in Table 1-3.

Table 1-3 Short-listed options

0. Business as Usual	1. Do minimum	2. Do maximum
Delivering business as usual through existing buildings and ongoing maintenance costs The BAU option includes the costs associated with annual surveys and implementing a programme of risk based fail safe and remedial works for the period up to 2035 when all RAAC panels need to be removed from all NHS hospitals.	New two-storey facility (5108m2) to be constructed adjoining to the elective centre, with 7 theatres on the first floor and non-clinical shell space on the ground floor. This investment associated with this option would ensure that Main Theatres vacates the RAAC building.	New two-storey facility (5108m2) to be constructed adjoining to the elective centre, with 7 theatres on the first floor and clinical shell space on the ground floor. This investment associated with this option would ensure that Main Theatres vacates the RAAC building.

1.6.2 Economic Appraisal Approach & Assumptions

The Trust has updated the capital and revenue costs, benefits and risk associated with the short-listed options and built this into an updated Comprehensive Investment Appraisal (CiA) model. This is set out in detail in Section 3.10 of the FBC.

1.7 Economic Case – Updated Capital Costs

The table below outlines the updated capital costs for the shortlisted options taken from the FB forms. Figures excluding VAT have been modelled in the CIA model. FB forms are set out in Appendix 3b: CIM FBC capital forms - Forms 1-4 (incl Optimism Bias Schedules).

The detail associated with the capital costs approach for the three options is set out in Section 3.11 and has been discussed and agreed with NHSEI.

Table 1-4 Capital Costs (taken from summary FB1 form)

	Line Ref Table 3-12	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Departmental Costs	1	-	15,076.0	15,076.0
On Costs	2	11,964.1	5,653.4	6,040.9
Works Cost Total	**3**	**11,964.1**	**20,729.4**	**21,116.9**
Provisional location adjustment (if applicable)	4	-358.9	-621.9	-633.5
Sub Total	**5**	**11,605.2**	**20,107.5**	**20,483.4**
Fees	6	1,450.7	2,355.7	2,505.7
Non-Works Costs	7	68.9	1,319.9	1,319.9
Equipment Costs	8	-	161.4	161.4
Planning Contingency*	9	-	1,200.0	1,200.0
Sub Total (FB Form Line 10 Excluding VAT)	**10**	**13,124.8**	**25,144.5**	**25,670.4**
Uplift to base date (exc VAT)		**13,876.2**	**25,144.5**	**25,670.4**
NPC of Capital Costs		**13,749.5**	**24,915.0**	**25,436.0**

Source: FB forms

*Note that the planning contingency for Option 0 BAU has been sourced by way quantified risk calculations in the CIA model.

** Optimism Bias is modelled separately within the CIA model.

It should be noted that the CIA model uses Line 10 from the FB form (excluding VAT) and inflates the costs to the base date used within the CIA model. Full FB forms include VAT, which is excluded from public sector economic appraisals and hence the FB form total and modelled figured within the CIA will not directly correlate. The data sheet that feeds the CIA model has been provided to help explain the modelling.

1.7.1 Rationale for movement in Capital Costs since the OBC

The movement in capital costs for each of the three shortlisted options is also described below.

BAU Cost movement (since OBC)

The movement in BAU capital costs (line 2 of FB forms: “on-costs”) can be summarised as follow.

- Uplift to backlog maintenance in January 2021 = £369k.
- Market conditions price uplift (based on GMP assessment) = £758k.
- Uplift from PUBSEC 250 to PUBSEC 262 = £548k.

This represents a total movement in line 2 of £1,675k from £10,289k at OBC to £11,964k at FBC.

Further changes result from those cost lines in FB forms that are linked to a works cost total i.e., location cost adjustments, fees, contingency, optimism bias and inflation adjustments.

Preferred Option : Option 1 Do Minimum FBC Cost movement (including GMP) since OBC

Table 1-5 sets out the capital costs associated with the Preferred Option and movement between the approved OBC and FBC.

Table 1-5 Capital Costs – Preferred Option : Option 1: Do Minimum

	Approved OBC £ 000	FBC £000	Net Change £000
Departmental Costs	10,499.1	15,076.0	4,576.9
On Costs	5,821.0	5,653.4	(167.6)
Works Cost Total	**16,320.1**	**20,729.4**	**4,409.3**
Provisional location adjustment (if applicable)	-489.6	-621.9	(132.3)
Sub Total	**15,830.5**	**20,107.5**	**4,277.0**
Fees	1,820.5	2,355.7	535.2
Non-Works Costs	51.5	1,319.9	1,268.4
Equipment Costs	150.0	161.4	11.4
Planning Contingency (10%)	1,583.0		(383.0)
Planning Contingency (5.86%)		1,200.0	
Total	**19,435.5**	**25,144.5**	**5,709.0**
Optimism Bias (6.8%)	1,321.6		(959.5)
Optimism Bias (1.44%)		362.1	
Sub Total (Line 12 of OB/FB1)	**20,757.1**	**25,506.6**	**4,749.5**
Inflation adjustment (to mid-point of construction)	2,411.5	-	(2,411.5)
Total	**23,168.6**	**25,506.6**	**2,338.0**
VAT	4,269.6	4,630.2	360.6
Total (including VAT)	**27,438.2**	**30,136.8**	**2,698.6**
Percentage Increase			**9.8%**

Source: OB/FB forms

The above indicates a total movement in capital costs of £2,338k before VAT (£2,698k inclusive of VAT). In the commentary below we set out the line-by-line rationale for any changes, prior to VAT.

A line-by-line explanation is set out below for any changes, prior to VAT.

Line 1: Departmental Costs. Total movement = £4,577k, with this being due to three contributory factors:

- Cost of 'shell space' now shown in line 1 instead of line 2 (On-Costs) = £3,563k.
- Increase in GIFA (theatres and ground floor) of 133m2 = £324k.
- An increase in PUBSEC indices[1] (from 250 to 262) = £690k.

Line 2: On Costs: Total movement = £0.167m [reduction], with this being due to four contributory factors

- Cost of 'shell space' now shown in line 1 instead of line 2 (On-Costs) = (£3,563k)
- Increase in GIFA (second floor) of 29m2 = £55k
- An increase in PUBSEC indices (from 250 to 262) = £259k
- Adjustment to on costs and site abnormals as per Graham GMP (including allocation of construction inflation @ £400k and market price inflation @ £1.3m) = £3,082k

Line 3: Work Cost: This is a total of lines 1 and 2.

Line 4: Location adjustment: Total movement £132k [reduction].

- This is a mathematical movement only: with 3% applied to a higher Works Cost results in a higher location adjustment.

Line 5: This is a sub-Total of lines 3 and 4.

Line 6 Fees. Total movement = £535k. FBC fees have been updated since OBC, with the movement since OBC being partly due to reallocation of BREEAM allowance and additional surveys to de-risk the scheme. There is now an agreed fee split between:

- Graham construction: £1,502k and

[1] The OBC was based upon a PUBSEC reporting level of 250 at line 10, whereas as the FBC is based upon tender prices which includes future inflation based upon the current programme milestones (i.e., FBC approval Q4 2021).

- Those procured directly by the Trust: £853k.

Line 7: Non-Works costs. Total movement = £1,268k with this being due to four contributory factors

- The inclusion of enabling works, including service diversions = £360k [not included in OBC].
- Demolitions = £75k [not included in OBC].
- Modular block decant = £860k [not included in OBC].
- Revised planning fee allowance = £27k [reduction].

Line 8: Equipment Costs. Total movement = £10k

- Uplift from PUBSEC 250 to PUBSEC 269 (FBC approval)

Line 9: Planning Contingency. Total movement = £383k [reduction]

- OBC allowance of 10% now replaced with priced risk register.

Line 11: Optimism Bias. Total movement = £959k [reduction]

- Risk mitigations implemented during period of OBC submission and FBC development (6.8% at OBC reduced to 1.44% at FBC)

Line 12: Inflation. Total movement = £2,411k [reduction]

- Inflation now included within individual cost lines (where applicable)

Option 2: Do Maximum FBC Cost movement (since OBC)

As stated above, the only difference between Option 1 Do Minimum and Option 2 Do Maximum are the works required in the provision of lightwells to the shell space and any fees relating to the additional design to incorporate this. This cost increase then factors its way down through capital cost workings and impacts other cost lines, such as 'location adjustment'. Therefore, cost changes noted above, for Do Minimum, are also applicable for Option 2 Do Maximum.

Optimism bias is also higher in this option due to contributory factors relating to planning, stakeholder engagement and potential programme implications from re-design.

Lifecycle Costs

Lifecycle costs have been reviewed and updated by the Trust's cost consultant since OBC stage. Option 1 Do Minimum and Option 2 Do Maximum both have exactly the same theatre provision for different future use by way of shell and core space on the ground floor. There is no intention to fit out shell and core (for either administrative or clinical use) at this time and any future business case would consider the ongoing lifecycle costs for this rather than tin his FBC. A full analysis of lifecycle costs can be found at Appendix 3c: NWA – Main Theatres Life cycle.

1.8 Economic Case – Updated Recurring Revenue Costs

1.8.1 FBC: Clinical, non-clinical and support costs

The costs associated with running Main Theatres fall within the Trust's Surgical Division, for internal financial management and reporting purposes, and therefore this is used as the basis for this assessment. No change has taken place in the staffing or scope of the options since OBC approval and so the costs incorporated in the OBC remain unchanged. The costs are at base date of 2021/22.

1.8.2 FBC: Building Running Costs

For this appraisal, the approach to assessing any impact on the building running costs for Option 1 Do Minimum and Option 2 Do Maximum has been to assess the incremental shift away from Business as Usual, at a whole hospital level. 2019/20 ERIC[2] data for Hinchingbrooke Hospital was utilised. The building running costs have been costed at a £/m2 based on the total Hinchingbrooke Hospital Gross Internal Floor Area (GIFA). Variable costs, i.e., those expected to vary in line with the size of the new theatres, have been identified and flexed based on a £/m2 to calculate the incremental cost impact for both Do Minimum and Do Maximum options.

The change in GIFA takes into account the demolition of Woodpecker Lodge and Staff Change areas as against the new GIFA resulting from new Modular facilities and the New Build itself. An adjustment is also considered for mothballed space (vacant theatres and shell space) and cheaper energy costs resulting from more energy efficient new space. Assumptions used within these calculations are as follows:

- Mothballed/de-commissioned space: cost per m^2 = 10% of current costs.
- Energy efficiency (as a result of modern energy efficient facilities) = saving of 10% per m2 against current costs.

Table 1-6 shows building running costs for each of the options.

[2] Estates Returns Information Collection data on Trust buildings, collated by DHSC.

Table 1-6 Building Running Costs

	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Cleaning	1,710.2	1,716.3	1,716.3
Catering	955.0	955.0	955.0
Portering	992.8	992.8	992.8
Laundry and Linen	585.2	585.2	585.2
Waste (Clinical and General)	286.2	286.2	286.2
Utilities/Energy	1,488.5	1,485.0	1,485.0
Hard FM and Maintenance	1,999.6	2,006.8	2,006.8
Grounds and Gardens	1,375.1	1,375.1	1,375.1
Other	307.4	307.4	307.3
Total Building Running Costs (Hinchingbrooke Hospital)	**9,700.0**	**9,709.8**	**9,709.8**
Uplift to 2021/22 base date	10,191.1	10,201.4	10,201.4
GIFA (m^2) – Existing Theatres	2, 297		
GIFA (m^2) – Woodpecker Lodge & Staff Change	973		
GIFA (m^2) – New Modular Stores adjacent to Elm Ward		75	75
GIFA (m^2) – New Modular Staff Change & Offices		346	346
GIFA (m^2) – New Theatres		2,542	2,542
GIFA (m^2) – New Shell Space		2,565	2,565
Area change of "In Use" Space (m^2)		(307)	(307)
Mothballed Space (m^2)		4,862	4,862

Source: Section 3.12 of Economic Case

1.8.3 PFI Variation Costs

In both Option 1 Do Minimum and Option 2 Do Maximum, there will be connection to the PFI link corridor between the theatres and the Main Hospital, which will result in an increase in the Annual Service Payment (ASP) until the end of the PFI concession in 2035. The ASP adjustment is £2k per annum (excluding VAT) and is applicable to Option 1 Do Minimum and Option 2 Do Maximum - the NPC of these costs is £20.9k. These costs were not modelled at OBC stage.

1.8.4 Net Contributions

As a result of the project the Trust will lose income from 51 staff car park spaces. This loss is estimated to be in the region of £29k per annum based on £2.20 per day and a turnover of 1 space per day for 5 days a week. The income is modelled each year in Option 0 BAU but removed in Option 1 Do Minimum and Option 2 Do Maximum to recognise this loss of income. The NPC of lost income is £769.4k.

This loss of income was not modelled at OBC stage.

1.9 Economic Case – Updated Risks

1.9.1 FBC: Monetised Risks

Quantified capital/ construction related risks have been calculated

The Trust has assessed the capital related risk for the BAU option. This has been quantified within the CIA model and subsequently recognised as the contingency figure included as part of capital FB forms (£1,163.2k). The analysis was undertaken between the Trust's Cost Consultant and Financial Adviser.

Risk for Option 1 Do Minimum and Option 2 Do Maximum has been separately quantified by the Trust's Cost Consultant and included in the Trust's Project Construction Risk Register at £1,200k. The Cost Consultant has combined their own risk calculation methodology alongside their technical understanding of the project, and

outcomes of discussions with the PSCP regarding the GMP (and any risk inherent within this price), to establish what is felt to be a robust approach to the costing of risk. The Project Construction Risk Register was developed as part of the P22/NEC3 process and any risks that sit with the PSCP were identified appropriately.

The quantified risk sum is therefore included as the planning contingency in the capital FB forms for both options.

The Trust is comfortable that there will be no unforeseen operational risks that need to be quantified.

The Trust agreed its approach to risk with NHSEI prior to FBC submission.

1.9.2 FBC: Unmonetised Risks

The Trust has used a recognised project management approach to develop a standard project risk register for the project. Unmonetised risks are included within this Trust's Risk Register and set out in the Appendix 6.5 of Management Case.

1.10 FBC: Benefits Analysis

Table 1-7 and Table 1-8 below show the benefits identified for this project and which investment objective they are linked to.

The monetised non-cash releasing benefits (NCRB) are drawn from the approved OBC and remain unchanged following review by the Trust and its financial advisers. The Trust has agreed its assumptions with DHSC and NHSEI prior to FBC submission.

Table 1-7 Monetised Non-cash Releasing Benefits

Monetised NCRB benefit Name	Benefit Description	Linked with Investment Objective
1.Increased productivity of clinical staff	Removal of the need to complete RAAC panel surveys will reduce theatre downtime and increased productivity of clinical staff who cannot be redeployed. RAAC panel surveys cause annual downtime of up to 26 weeks per pair of theatres. Productivity benefit is calculated against pay costs for medical staff[3].	**Investment Objective 3:** Maximise opportunities for estate development and asset optimisation.
2. Reduction in non-productive time (non-medical staff)	3%[4] - 5% staff efficiency benefit in use of staff time, calculated against pay costs for non-medical staff.	**Investment Objective 3:** Maximise opportunities for estate development and asset optimisation.
3. Reduction in non-productive time (medical staff)	3% - 5% staff efficiency benefit in use of staff time, calculated against pay costs for medical staff.	**Investment Objective 3:** Maximise opportunities for estate development and asset optimisation.

1.10.1 FBC: Benefits Analysis: Unmonetisable Benefits

The Trust and its Financial Advisers have reviewed the unmonetisable benefits in the OBC and confirm that original benefits remain in place for the short-listed options. However, one extra benefit has been included referred to as "Improved patient experience" (pre-treatment). These unmonetizable benefits are set out in the table below.

Table 1-8 - Unmonetisable benefits

Unmonetisable Benefit Name	Benefit Description	Linked with Investment Objective
Improved patient experience (pre-treatment)	The mitigation of dual theatre closure for survey and remedial works under BAU will result in there being no further extension to patient waiting times for admission for surgery. Operations are likely to be cancelled under BAU, with no capacity within the local system (NHS or Private) to meet this demand.	**Investment Objective 4**: Develop assets which enable the delivery of clinical strategies.
Improved patient experience	New theatre areas designed to latest specification with patients at the heart of the design,	**Investment Objective 2**: Invest in infrastructure to

[3] This could also classify as an 'avoided cost' but is included as a benefit within this appraisal.
[4] 3% has been used within the appraisal (for prudency) 'and separation of costs between non-medical staff and medical staff has been provided. There is no double-count of benefits in NCRB 2 and 3.

Unmonetisable Benefit Name	Benefit Description	Linked with Investment Objective
	stakeholder led design throughout to optimise patient experience. This includes new dedicated recovery/waiting area for Paediatrics.	ensure a safe environment for the population and staff
Improved staff experience	Improved facilities for staff, including improved functional usage and prep space within the theatres (up to HBN recommendations). This will assist in recruitment and retention.	**Investment Objective 2**: Invest in infrastructure to ensure a safe environment for the population and staff
Reduced infection control risk	The new theatres will be built to latest design specification reducing infection control risks with the current air handling units.	**Investment Objective 2**: Invest in infrastructure to ensure a safe environment for the population and staff

The unmonetisable benefits which will be derived from the shortlisted options are outlined in the table below.

Table 1-9 - Unmonetisable NCR benefits

Unmonetisable Benefit Name	Option 0: Business As Usual	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use)	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use)
Improved patient experience (pre-treatment)	✗	✔	✔
Improved patient experience	✗	✔	✔
Improved staff experience	✗	✔	✔
Reduced infection control risk	✗	✔	✔

Source Section 3.14.1 Economic Case

1.11 FBC: Summary of Economic Appraisal – VFM

The table below summarises the results of the updated economic appraisal of the shortlisted options and is drawn from the completed Comprehensive Investment Appraisal (CIA) model (Reference Table 1-10).

Table 1-10 Summary of FBC Economic Appraisal – CiA NPC

	Option 1: Do Minimum: 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Incremental Costs		
Revenue	-277.8	-277.8
Net Contributions	-769.4	-769.4
Total Costs	**-1,047.2**	**-1,047.2**
Incremental Benefits		
Cost Reduction – Capital (Including Optimism Bias)	2,391.2	1,355.8
Cost Reduction – Risk	1,163.2	1,163.2
Non-Cash Releasing Benefits	12,278.6	12,278.6
Total Benefits	**15,833.0**	**14,797.6**
Risk Adjusted Net Present Social Value (NPSV)	14,785.8	13,750.4
Benefits Cost Ratio	15.12	14.13
Rank	1	2

Source Section 3.15 Economic Case

The above demonstrates that Preferred Option, Option 1 Do Minimum, has the highest BCR and NPSV of 15.12 and £14,785.8k respectively. The metrics for the Preferred Option at OBC were 11.69 and £16,941.4k for BCR and NPSV respectively (reference section 3.9 Economic Case).

The Trust has undertaken sensitivity analysis which re-affirms the above conclusion (reference Economic Case Section 3.15).

1.12 Commercial Case

1.12.1 Procurement and selection process

Outlined below is a summary of the choice of contractor. Details are set out in the Commercial Case in Section 4.

Main Theatres Modular Building

Graham Construction is the Trust's Preferred Supply Chain Partner (PSCP) under P22. The Trust undertook a full procurement process in 2018/19 to confirm Graham Construction as the Trust's PSCP on 12 March 2019.

Graham Construction, as the Trust's PSCP, has been appointed to deliver multiple major schemes (P22-0083) including the Urgent Care expansion. The Main Theatres scheme (this project) was mentioned as one of the potential additional which, together with Urgent Care and wider site redevelopment, form the Hinchingbrooke Hospital Redevelopment Programme.

Graham Construction successfully delivered the Urgent Care project on time and within budget and therefore the Trust decided to continue with the PSCP for this project.

By working within the DHSC approved P22 framework, procurement sits within EU procurement law.

Enabling Works

Edge, the Trust's QS advisor's supported the Trust through the procurement in tandem with the Trust's Procurement Team. The Trust's cost advisor report incorporating the procurement process is set out in Section 4.8.1 of the Commercial Case.

1.12.2 Full Planning Permission

Planning permission has been confirmed for both the Main Hospital Building and enabling works. Details are set out in the Commercial Case in Section 4.

Main Theatres Modular Building

Huntingdonshire District Council granted planning permission on 4 June 2021 for the demolition of Staff Change accommodation and Office accommodation and Erection of New Theatre Block over ground, first and plant floors and associated landscaping works and cycle parking provision.

A copy of the full planning permission (Application Number: 21/00604/FUL) dated 4 June 2021 is set out in Appendix 4a: Main Theatres Building: Full Planning Permission. All conditions have been accepted.

Enabling Works

Huntingdonshire District Council granted planning permission on 2 July 2021 for the siting of two single storey modular buildings for a temporary period of 3 years to facilitate redevelopment of main theatres block, to include staff change facilities and offices and ancillary storage of clinical equipment.

A copy of the full planning permission (Application Number: 21/00871/FUL) dated 2 July 2021 is set out in Appendix 4a: Main Theatres Building: Full Planning Permission. All conditions have been accepted.

1.12.3 Design & Sign off

1:50 drawings have been developed in conjunction with stakeholders and are set out in Appendix 4c: Main Theatres Building: Drawings & Sign off 1:200 & 1:50s.

The Main Theatres Building drawings have been validated and signed off (Appendix 4c: Main Theatres Building: Drawings & Sign off 1:200 & 1:50s) by:

- F. Di Franco, Divisional Director Surgery (20 April 2021).
- K. Hopcraft, Divisional Operations Director – Surgery (20 April 2021).
- A. Patel, Consultant Surgeon (26 April 2021).
- S. Somers, Divisional Operations Manager – Theatres, Anaesthetics & Critical Care, Pain Management Service. (15 April 2021).
- S. Forder, Associate Divisional Director – Theatres, Critical Care & Pain (26 April 2021).
- J. Knaepel, Theatre Manager.

The table below sets out a summary of key other commercial components associated with the project.

Table 1-11 Other Key Commercial Case Deliverables

Deliverable	Commentary
Schedule of accommodation - Main Theatres Building (Gross Internal Area)	First Floor, 2542.2m^2. Ground floor, 2565.3m^2. Total 5107.5 m^2. Ref Section 4.6.7 Commercial Case.
Schedule of accommodation - Enabling works	1150m$^{2.}$ Reference Section 4.14.4 of the Commercial Case.
Design Appraisal Toolkit (DAT)	DAT Stage 3 report completed. Reference Appendix 4g: Main Theatres Building: Design Appraisal Toolkit (DAT).
Main Theatre Building - Infection control	Confirmed by the Trust's Deputy Director of Infection Prevention and Control. Reference Appendix 4e: Main Theatres Building: Infection Control.
Main Theatre Building - BREEAM	BRE have confirmed a rating of excellent and score of 80.6%. The full BREEAM report and certificate, BEEEAM-0088-6648 are provided at Appendix 4h: Main Theatres Building: BREEAM – Interim Design Certificate.
Trust's Net Zero Carbon Strategy	The Net Zero Carbon data has been evaluated in the Design Stage; a reassessment will be undertaken post-construction. The Design Stage assessment has however identified the following off-setting monies to be paid by the Trust, for Construction and Operational phases respectively. The report (reference Appendix 4v: Envision Net Carbon Zero Assessment) confirms that the predicted offset costs are as follows.

Net Zero Carbon Route	Predicted Emissions to Offset (tonnes)	Offset Cost at £7.20 per tonne
Net Zero Carbon Construction	2480	£20,449
Net Zero Carbon Operational Energy	200	£1,440

New Main Theatre Building - Schedule of design derogations

The New Theatres Building will be fully compliant with relevant DHSC HBNs and HTMs except a limited number of agreed derogations

The variations were derived from a combination of detailed discussions with the users, their desire to support the new facility and improvement in flows which derive from the new design. The HBN variations agreed are as follows:

- Recovery – the large area for Recovery rooms were considered unnecessary and reduced to support capacity.
- The Recovery areas were reviewed based on previous experience and model testing at 1:50 during exemplar layout review and it was agreed to reduce them to support capacity.
- Clean Utility for the recovery area was reduced during design as agreed with the Clinical Team.

These variations have been the product of extensive discussion with the Technical/ Clinical Team and are fully supported by them. The Stage 2 design has been formally signed off by the Technical/ Clinical Team.

The schedule of design derogations is outlined in Appendix 4d: Main Theatres Building: Schedule of Design Derogation and includes one derogation related to HTM 05-02: Fire Code (see below).

Whilst the two lifts and associated stair cores are not separated within the Main Theatres design, the broader context within which the design sits is important.

HTM 05-02 states that "Should evacuation become necessary, except for those premises with independent occupants, it should be based on the concept of progressive horizontal evacuation, with only those people directly at risk from the effects of fire being moved. Adopting this approach ensures that the concept of "inclusive design" has been applied."

HTM 05-02 further states that:

"There are three main stages of evacuation:

Stage 1 – horizontal evacuation from the area where the fire originates to an adjoining sub-compartment or compartment; Stage 2 – horizontal evacuation from the entire compartment where the fire originates to an adjoining compartment on the same floor. Subsequent additional horizontal evacuation to adjacent compartments may be

undertaken (thereby putting additional fire resistance between the building occupants and the threat) prior to undertaking vertical evacuation; and Stage 3 – vertical evacuation to a lower floor, or to the outside."

"The principle of progressive horizontal evacuation is that of moving occupants from an area affected by fire through a fire-resisting barrier to an adjoining area on the same level, designed to protect the occupants from the immediate dangers of fire and smoke (a refuge). The occupants may remain there until the fire is dealt with or await further assisted onward evacuation by staff to another similar adjoining area or to the nearest stairway. This procedure should give sufficient time for non-ambulant and partially ambulant patients to be evacuated vertically to a place of safety, should it become necessary to evacuate an entire storey."

The Fire Strategy underpinning the design of the new Main Hospital is based on the principle of progressive horizontal evacuation.

The new Main Theatre facility will not be stand alone but will be connected to the main hospital. There will be a first floor link bridge between new Main Theatres and the Treatment Centre link corridor at first floor between the Treatment Centre and the Main Hospital building. In addition, there will be a separate minor link adjacent to - and separate from - the two lifts within Main Theatres. Currently, the design also has a ground floor linked connection between the Main Hospital to the main lift lobbies and/or stair core serving new Main Theatres. This will provide access mainly for the movement of Maternity patients between the Maternity Unit and Main Theatres.

The longer term solution is for there to be a number of additional links into a newly developed Main Hospital which will ensure full compliance with the spirit and letter of HTM 05-02. However, whilst the Trust is fully committed to achieving a long term solution for the RAAC panel part of the site and the rest of the Hospital, there is as yet no agreed timeline or funding solution.

Stroma Building Control has reviewed the general layout and Fire Strategy drawings provided by Murphy Philipps (Graham's design advisor), in conjunction with the Fire Strategy Report produced by BB7 (Graham's Fire Authorising Engineer) and are generally satisfied that the proposals achieve compliance with the Building Regulations. Both Stroma and BB7's reports are set out in Appendix 4f: Main Theatres Building: Statement of Compliance (Fire Safety).

The proposed strategy to utilise the lifts within the existing building for vertical evacuation is deemed acceptable by Stroma, particularly due to section 3.51 of HTM 05-02 which advises that it can be considered appropriate to utilise existing lifts within large hospitals, subject to suitable compartmentation.

New Main Theatre Building - Statement of Compliance (Fire safety)

Stroma Building Control has reviewed the general layout and Fire Strategy drawings provided by Murphy Philipps (Graham's design advisor), in conjunction with the Fire Strategy Report produced by BB7 (Graham's Fire Authorising Engineer) and are generally satisfied that the proposals achieve compliance with the Building Regulations (reference Appendix 4f: Main Theatres Building: Statement of Compliance (Fire Safety).

Cambridgeshire Fire & Rescue Service has indicated their provisional approval of the current evacuation lift provision and the reliance on a progressive horizontal evacuation strategy (as confirmed via email on 17.06.21), subject to the preparation of a robust management plan for the use of the new Theatre Block (considering the guidance of BD 2466), and to include how evacuation will be managed during occupation/operation of this new building.

The provision of the new evacuation lifts is considered to achieve the intent of HTM guidance when considered in the context of an extension to an existing building and also improves the evacuation lift provision for a fire occurring elsewhere in the existing building. In BB7's opinion, this should demonstrate compliance with Part B of the Building Regulations.

The Trust will develop a fire management / evacuation plan for the new theatres before the commissioning of the new facility.

Regulatory Reform (Fire Safety) Order 2005: Responsibility for complying with the Fire Safety Order rests with the responsible person, which for the majority of healthcare organisations will be the employer, the Trust.

The Trust has agreed to a derogation against HTM 05-02 in respect of the non-separation of the two lifts and associated stair cores within the new Main Theatres facility, but in all other respects, the building will be compliant with HTM 05-02 and the design and fire strategy has written confirmation of support of the parties cited above. The Trust's Chief Executive Officer has confirmed acceptance of the Theatres Fire Strategy / Design and this document is in Appendix 4f: Main Theatres Building: Statement of Compliance (Fire Safety).

1.12.4 Price of Contract

New Main Theatres Building – GMP Edge Review

The final Guaranteed Maximum Price (GMP) submitted by Grahams is in the sum of £21,611k exclusive of Trust direct project costs and VAT. The GMP includes the physical construction costs, main contractor management, supervision and preliminaries, design fees and surveys costs, design development and construction risks, and

main contractor overheads and profit (P22 fee). The project QS advisers, Edge, evaluated the GMP submission. Their report is contained in Appendix 4j: Main Theatres Building: Cost Advisors' Report.).

The GMP does not include for other professional and consultant fees (Trust direct appointments and internal resources), IT and equipment costs (Group 2 and 3), decanting and other Trust direct works, and VAT.

With regards to Grahams GMP offer, the following points were highlighted in Edge's report:-

- Approximately 93% (by value) of the works package cost is based upon subcontractor quotations, which is significantly higher than the P22 suggested minimum of 80%.
- The subcontractor quotations incorporated in to the GMP offer have been selected on 'best value' principles. However, for the majority of the works packages the selected quote were also lowest compliant tenders (approx. 61% by value).
- Approximately £59k (or 0.3%) of the works packages are to be awarded to subcontractors based local to the area (i.e., within a 25-mile radius of the hospital) however Edge understand that modern contractors do often operate nationally with satellite offices situated around the country.

The total out-turn costs for the new build theatres is estimated at £30,1367k inclusive of Trust direct project costs and VAT. A high-level financial summary is given below (detailed in Appendix 4j: Main Theatres Building: Cost Advisors' Report).

Table 1-12 New Main Theatre Building - GMP

Element	Net Total (£'000)	VAT (£'000)	Gross Total (£'000)
1) Construction Works (Grahams GMP)	£21,611	£4,322	£25,933
2) Professional fees & internal resourcing (2%)	£853	£171	£1,023
3) VAT recovery (Design Fees)	£0	-£452	-£452
4) Non-works costs	£1,322	£264	£1,587
6) Trust Risk / Planning Contingency (incl VAT)	£1,543	£309	£1,852
7) IT and Equipment Costs (including sundries)	£161	£32	£194
Total Estimated Costs	£25,490	£4,647	£30,137

Following the detailed analysis undertaken on the GMP submitted by Grahams, Edge consider the GMP sum of £21,611k to be fair and reasonable. Furthermore, and with specific reference to the level of competitiveness and overall value of local spend, Edge consider that the GMP offers value for money within the P22 framework. As such, Edge confirm that Grahams can be awarded these works.

In summary, Edge have checked the sub-contractor quotations and have no concerns with any of the rates or quantities included in the GMP. Edge have compared the rates underpinning the GMP with other schemes and they are generally in line with them.

1.12.5 Modern Methods of Construction

Modern Methods of Construction (MMC) is a broad term, embracing a range of off-site manufacturing and on-site techniques that provide alternatives to traditional building.

The MMC assessment is set out in Appendix 4m: Main Theatres Building: Modern Methods of Construction. This demonstrates an MMC score of 71%. This is lower than the anticipated target outcome previously reported to NHSEI which reflected an interim position prior to finalisation of the GMP.

The Trust submitted a response and paper to JISC (6 April 2021) regarding the MMC score proposed and rationale for non-achievement of 100%. However, these methodologies were deemed unsuitable due to the functionality of the building. The key elements of the analysis were as follows:

- A market assessment exercise was undertaken to assess the scope for delivery of the scheme using the volumetric route. This concluded that the location at first floor created a number of long-term flexibility issues.
- The podium requirements and locations of structural support to fit with the modules would have left a very limited space for future use below theatres.
- The costs were comparable to a traditional approach when the list of exclusions from pricing were factored in. A transfer structure was considered, but the cost for this was even higher.
- The risk of co-ordination issues between the Module co and the supplier of the associated construction works was deemed too high.

1.12.6 Accounting Treatment

The newly constructed theatres of Hinchingbrooke Hospital will be owned by and sit on the asset register of North West Anglia NHS Foundation Trust. There are no further asset ownership considerations for the Trust.

There is no acquisition or disposal of land required for this project.

1.12.7 Final Contract

New Main Theatre Building - Final Contract

Graham Construction, the Trust's Preferred Supply Chain Partner (PSCP) under P22 are utilising the NEC3 Engineering and Construction Contract (ECC) to support the delivery of the capital schemes delivered via the framework. The new Main Theatres Building will be delivered under this established and structured procurement approach as outlined in Section 4.11 of the Commercial Case.

There are no project specific clauses. On this basis, the Trust is confident in this contractual approach and consequently has not sought a legal report from an established legal firm.

Link to PFI Treatment Centre Schedule 22 PFI Contract

A link corridor will be built connecting the Main Theatres Building (first floor level) to the PFI Elective Treatment Centre and is captured as a part of a contract variation to the existing PFI contract. The Trust has successfully liaised with the PFI Project Company, which is owned through a joint venture between HICL Group and Kajima Partnerships (hereafter referred to as "Project Co").

The new Mains Theatres Building will be connected to both the main hospital building and PFI Treatment Centre to facilitate the smooth transport of patients and staff through a linked corridor.

A contract variation has been agreed by the Trust with Project Co to deliver the linked corridor. This includes a one-off capital cost of £22k and the annual increase to the Unitary Charge is £2.1k (incorporating estate facilities management and life cycle costs). These costs are at March 21 prices.

The Trust has agreed the PFI variation with PFI Project Co. PFI Project Co has signed the variation document. However, the Trust is not able to sign as it cannot enter into a financial commitment until it has certainty that the project can go ahead. On this basis, the Trust will await FBC approval before signing the variation.

Trust Variation VO237 signed by PFI Project Co and supporting documentation are set out in Appendix 4l: PFI Variation.

The PFI building has 14years left on the contract and will then revert back to the Trust in condition B. The Trust is retaining use of the Treatment Centre and will maintain the link to support flexible and adaptable Service provision at the hospital as part of the long-term vision for the hospital.

Enabling works – Final Contract

The Trust and Excel will execute a JCT Design and Build Contract for the works. There will be no derogations or project specific Z clauses under this contract.

1.12.8 Green Plan (incl Green Travel and Car Parking Management plans)

The Trust is developing a Board approved Green Plan (formerly Sustainable Development Management Plan) which will be completed in 2022/23. The Trust has developed a Green Plan Development Strategy which acts as a roadmap for the development of a Green Plan for the Trust. The Green Plan Development Strategy is set out in Appendix 4s: Green Plan Development Strategy.

1.13 Financial Case

Outlined below is a summary of the financial analysis set out in Section 5.

1.13.1 Impact on Statement of Comprehensive Income - Incremental

The impact on the Trust's Statement of Comprehensive Income (SOCI), reflecting only the impact of the preferred option, Option 1: Do Minimum, is set out in Table 1-13 below along with supporting narrative to assist in the detailed understanding of financial statement movements.

Key financial impact:

- **Other Operating Income:** This represents the loss of 51 staff car parking spaced with a full year value of £29.2k. The financial year 2021/22 recognises a part year loss of income as income will not be lost until construction commences. Please note that this has assumed that staff pay for parking, this has been

suspended nationally for the pandemic and whether charging resumes is as yet unknown. This has therefore been included for prudency.

- **Operating Expenses:** All operating expenses (i.e. any expenses excluding pdc dividend) have been captured under one single heading in line with Trust financial reporting guidelines. Any resulting affordability gap as a result of the investment is to be bridged by an increase in CIP. For the purposes of this FBC CIP is shown as one single heading but the exact nature of savings will be determined in line with the Trusts standard CIP approach. Details of each financial impact is as follows:
  - **Impairments:** Woodpecker Lodge will be demolished to make way for the new facility and will be impaired in in 2021/22. Following construction of the new asset there will be an impairment of the new capital asset, and this is expected to be £4.8m, in line with the professional valuation received from Gerald Eve.
  - **Other operating costs:** FM costs are expected to increase by £10.3k per annum (Full Year) and will commence in August 2023. PFI charges will increase by £2.2k per annum and the Trust will be liable to pay carbon offset charges of £1.4k per annum commencing December 2023.
  - **Depreciation:** For the financial years 2021/22 and 2022/23 the Trust will see a reduction in its depreciation charges relating to the impairment of Woodpecker Lodge (part year / full year respectively). Once the new facility has been completed depreciation charges will be applied for the new theatre block.
  - **Capital Charges:** in line the impairment of Woodpecker Lodge, the recognition of the new asset and any resultant impairment of the new asset, net capital charge increases are also recognised. There will also be one-off impacts affecting the Trusts' SOCI (below the reported surplus/deficit position from continuing operations) relating to impairments.

The incremental impact on the SOCI is shown in the table below. Please note that the analysis includes rounding of those figures referred to above.

Table 1-13 Statement of Comprehensive Income - Incremental

	2020/21 £000	2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	2025/26 £000
Operating income from patient care activities	-	-	-	-	-	-
Other operating income	-	(7)	(29)	(29)	(30)	(29)
Operating expenses (*see breakdown below)	123	561	932	(3,903)	879	862
Operating surplus/(deficit) from continuing operations	**123**	**554**	**903**	**(3,932)**	**849**	**833**
Finance income	-	-	-	-	-	-
Finance expenses	-	-	-	-	-	-
PDC dividend expense	(123)	(595)	(903)	(866)	(849)	(833)
Net finance costs	**(123)**	**(595)**	**(903)**	**(866)**	**(849)**	**(833)**
Other losses	-	-	-	-	-	-
Surplus / (deficit) for the year from continuing operations	**-**	**(41)**	**-**	**(4,798)**	**-**	**-**
Surplus / (deficit) for the year	**-**	**(41)**	**-**	**(4,798)**	**-**	**-**
Other comprehensive income						
Will not be reclassified to income and expenditure:						
Impairments	-	-	-	-	-	-
Revaluations	-	-	-	-	-	-
Total comprehensive expense for the period						
Memorandum / Adjusted financial performance (control total basis):						
Surplus / (deficit) for the period	-	(41)	-	(4,798)	-	-
Remove net impairments not scoring to the Departmental expenditure limit	-	41	-	4,798	-	-
Remove I&E impact of capital grants and donations	-	-	-	-	-	-

	2020/21 £000	2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	2025/26 £000
Remove net impact of DHSC centrally procured inventories	-	-	-	-	-	-
Remove 2018/19 post audit PSF reallocation (2019/20 only)	-	-	-	-	-	-
Adjusted financial performance surplus / (deficit)	**-**	**-**	**-**	**-**	**-**	**-**
(*) Operating Expenses:						
Impairment	-	(41)	-	(4,798)	-	-
Additional FM cost	-	-	-	(7)	(11)	(11)
PFI ASP Charge	-	-	-	(2)	(2)	(2)
Carbon Offset	-	-	-	(1)	(1)	(1)
Depreciation	-	2	5	(370)	(494)	(494)
CIP (to meet affordability gap)	123	600	927	1,275	1,387	1,370
Total	**123**	**561**	**932**	**(3,903)**	**879**	**862**

The revenue impact associated with the Preferred Option, Option 1: Do Minimum, in the OBC was £2.4m. The above table illustrates the additional CIP requirement to meet the additional revenue requirement of the project progressively increases from £123k (20/21) to a peak of £1,387k in 2024/25. This is c.£1,000k lower than reported at OBC.

The affordability gap is seen as being manageable when considered against total Trust operating expenses of c. £550m and would not cause a material impact on the Trust's 5-year financial forecast position set out above.

The main contributor to the affordability gap is by way of the depreciation and capital charges impact resulting from the capital investment (rather than any material direct/indirect operational cost increases). The movement in revenue affordability between OBC and FBC can be explained by the differential treatment of capital expenditure in terms of assumed 'useful economic lives' combined with the impact that the initial impairment has on future depreciation and capital charges. These assumptions have been updated based on the information included within the impairment review undertaken by the Trust's Valuation Advisors' Gerald Eve.

1.13.2 Source and Application of Funds

The capital funding for the Preferred Option, is set out below. Capital costs have increased by 9.8% since approval of the OBC. The Trust can confirm that this is still affordable, and that the additional contribution required (over and above that stated at OBC) will be covered through ICS capital sourced via an emergency loan application, for which an application has been submitted and included at Appendix 5a: Emergency Loan Applications. As a Trust with a large PFI this is the normal route that the Trust uses to resource the capital programme as the depreciation is largely used to cover PFI payments. No requirement for additional Wave 4 funding is therefore required.

Table 1-14 Source and Application of Funds– Preferred Option

CAPITAL	20/21 £000	21/22 £000	22/23 £000	23/24 £000	Total £000
Funding Source					
Wave 4 Funding Available for Theatres Project	0	3,959.6	18,808.7	0	22,768.3
ICS capital sourced via emergency loan application	976.5	3,107.9	5,283.0	2,175.10	7,368.5
Total	**976.5**	**5,068.6**	**21,916.6**	**2,175.1**	**30,136.8**
Application of Funding					
Enabling work/Mobilisation/Procurement/ Construction/Commissioning	0	3,484.2	17,936.1	1,569.3	22,989.6
Equipment	0	0	0	161.4	161.4
PSCP Fees	497.4	628.6	301.6	75.4	1,503.0
Trust Professional Fees	479.1	259.0	91.7	22.9	852.7
VAT Cashflow	0	696.8	3,587.2	346.1	4,630.1
Total	**976.5**	**5,068.6**	**21,916.6**	**2,175.1**	**30,136.8**
Source *less* Application	**-**	**-**	**-**	**-**	**-**

1.14 Impact on Capital Departmental Expenditure Limit

The impact on the CDEL is shown in the table below and captures the gross capital expenditure and relevant impairment of the existing Woodpecker Lodge.

Table 1-15 CDEL

CDEL	20/21 £'000	21/22 £'000	22/23 £'000	23/24 £'000	Total £'000
Gross Capex (approval value)	976.5	5,068.6	21,916.6	2,175.1	30,136.8
Less NBV of Disposals	-	(40.6)	-	-	(40.6)
Less Grants and Donations (must be in the same financial year as the capex)	-	-	-	-	-
CDEL	**976.5**	**5,028.0**	**21,916.6**	**2,175.1**	**30,096.2**

1.14.1 Conclusion

Whilst the capital cost envelope has increased since OBC, the Trust is confident that Option 1: Do Minimum Preferred Option is affordable in both capital and revenue terms. Revenue affordability has reduced since OBC from c.£2,400k p.a. to a peak of c£1,400k p.a. in 2024/25.

An ICS letter of support is included at Appendix 2d: Letter of Commissioner & ICS support.

Key areas of affordability include:

- A total capital requirement of £30,136.8k including VAT, contingency and inflation funded from the Wave 4 allocation (322,768.3k) and balance from ICS capital sourced via Emergency Capital Loan application (£7,368.5k).
- A peak revenue cost pressure of c.£1,400k p.a. (at 2024/25) generated, in the main from increased capital charges, will be met through an increase to Trust CIPs.

1.15 Management Case

The management case sets out the arrangements for how the project will be managed, governed and resourced. It sets out the key milestones, risks and evaluation methods along with how quality is addressed within the project.

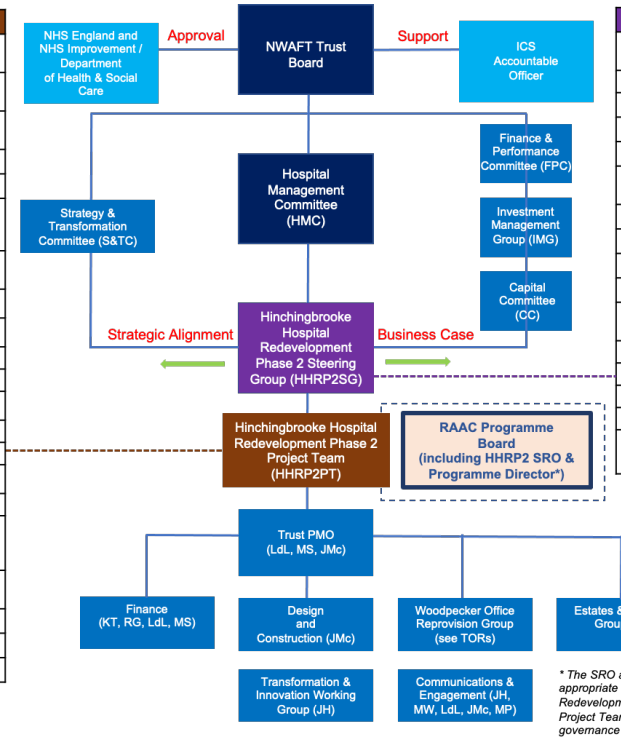
1.15.1 Project management and governance

The overarching governance structure for the Hinchingbrooke Hospital Redevelopment Phase 2 (Main Theatres) project is set out in Figure 1-1 below. The structure is consistent with the Trust-wide terms of reference for the governance of capital investment projects.

Figure 1-1 Hinchingbrooke Hospital Redevelopment Phase 2 Project Governance Structure[5]

HHRP2 Project Team Membership	
Luke de Lord (M)	Chair & HHRP2 Programme Director
Muhammad Syed (M)	Deputy Chair and HHRP2 Project Manager
Jacqui McDonald (M)	Design and Construction Sub-Group Lead
Eric Fehily (M)	Director of Estate and Facilities
Suzanne Hamilton (M)	Clinical Lead
Joyce Hartzenberg (M)	Comms and Engagement, WORS and Transformation & Innovation Sub-Groups Lead
Jason Knaepel (M)	Design and Construction Sub-Group Member
Sue Somers (M)	Design and Construction Sub-Group Member
Kate Hopcraft (M)	Divisional Operations Lead - Surgery
Filippo DiFranco (M)	Divisional Clinical Lead - Surgery
Richard George (M)	Finance Sub-Group Member
Kirsty Whiting (M)	Infection Prevention and Control Lead
Laura Stent (M)	Nursing Lead
Barry Patton (M)	IT Lead
Mandy Ward (M)	Communications & Engagement Lead
Jonathan Hale (A)	Full Business Case Lead
Katie Gosling (A)	Strategic Estates Advisor, NHS England and NHS Improvement (NHSEI) Regional Team
Clive Guyer (A)	Design Advisor (Director, Murphy Philips)
Elizabeth Smith (A)	PSCP Lead
Matt Hill (A)	Joint Cost Advisor
Michael Peacock (A)	HHRP2 Project Support Officer

M = Member
A = Attendee



HHRP2 Steering Group Membership	
Arshiya Khan (M)	Chair, Executive Lead and Senior Responsible Officer
Mike Ellwood (M)	Non-Executive Representative
Joel Harrison (M)	Chief Finance Officer
Joyce Hartzenberg (M)	Deputy Chair
Eric Fehily (M)	Director of Estates & Facilities
Suzanne Hamilton (M)	Deputy Medical Director & Clinical Lead
Stacey Coburn (M)	Deputy Chief Operating Officer
Luke de Lord (A)	HHRP2 Programme Director
Muhammad Syed (A)	HHRP2 Project Manager
Katie Thornley (A)	Finance Sub-Group Lead
Jacqui McDonald (A)	Design and Construction Sub-Group Lead
Richard George (A)	Finance Sub-Group Member
Michael Peacock (A)	Major Project Support Manager
Matt Hill (A)	Joint Cost Advisor
Elizabeth Smith (A)	PSCP Lead
Louise Bardsley (A)	Senior Strategic Change Manager, NHS England and NHS Improvement (NHSEI) Regional Team

M = Member
A = Attendee

** The SRO and Programme Director attend the RAAC Programme Board to ensure appropriate alignment of the RAAC Programme to the Hinchingbrooke Hospital Redevelopment Programme. The HHRP Programme Director also attends RAAC Project Team meetings. The HHRP and RAAC Programmes retain their own governance structures, SRO and reporting lines internally and externally to NHSEI.*

The core project management and governance is provided by

- The Senior Responsible Officer is Dr Arshiya Khan, NWAFT Chief Strategy and Transformation Officer, who is the Executive Sponsor.
- The Programme Director is Luke de Lord who is responsible for management and delivery of the project.
- The Project Manager is Muhammad Syed who is responsible for day-to-day management of the project and its advisors.

Figure 1-1 above illustrates the interrelationships between the Trust Board, Steering Group, Project Team and the Trust and its PSCP, Graham Construction.

The project is supported by a Project Team which includes clinical, operational and financial stakeholders. The Project Team is accountable to the Steering Group which provides oversight and makes key strategic decisions.

The project uses Prince II methodology throughout its lifecycle.

The Trust's budget for the PMO is £728k (at 2012/22 prices) through to completion and handover of the Main Theatres project.

The staff covered by the PMO include the following resources:

- Programme Director.
- Project Manager.
- Design and Construction Sub-Group Lead[6].
- Clerk of Works
- Project Assistant (accessed via the NWAFT Strategy & Transformation Directorate).

[5] Jacqui McDonald left the project in June 2021 just prior to the submission of the FBC. The Trust is recruiting a replacement. In the interim the Project Manager is undertaking the tasks of Design & Construction Sub Group Lead.
[6] Until submission of the FBC, this was undertaken by Jacqui McDonald. The Trust is currently recruiting a replacement.

The Trust focuses on operating the PMO in an efficient and cost-effective manner. The PMO will focus on the Main Theatres project but will be utilised flexibly to support wider Hinchingbrooke Hospital Redevelopment Programme projects, such as Phase 3 and the RAAC Project.

The involvement of the SRO and Programme Director in the RAAC Programme ensures appropriate alignment with the Hinchingbrooke Hospital Redevelopment Programme.

1.15.2 Project plan

Graham Construction's programme for Main Theatres Building is detailed in Appendix 6e: PSCP: Main Theatres Building – Building Programme and the enabling schemes project plan in Appendix 6f: Enabling Works Programme.

The detailed project plans reflect the key milestone dates, which affect the sequence and timing of activities. The key milestones associated with the above project plans are summarised in the tables below.

The enabling works have been initiated and largely completed before approval of the FBC.

Table 1-16 Main Theatres Building – PSCP Key programme milestones

Activity	Key Milestone	Date
Submission of FBC	Submit to NHSEI & DHSC	16th August 2021
Joint Investment Sub-Committee of NHSEI/ DHSC	FBC approval	18th November 2021
Enabling Works Woodpecker and Staff Change Reprovision*	Start on site	2nd August 2021
	Completion	17th October 2021
Service Diversions (electricity, medical gases, etc)	Start on site	31st Aug-21
	Completion	31st Dec-21
Main Construction	Mobilisation	3rd December 2021
	Start on site	3rd Jan-22
	Planned completion	26th May 2023
	Post completion construction	29 May – 19 June 2023
	Go live	19th June 2023

Table 1-17 Enabling Works – Key Programme Milestones

Key Milestone	Programmed Date
Appointment of contractor for ground works/ demolition, modular installation (Staff Change) & refurbishment of existing estate (administration)	2nd July 2021
Appointment of underground service conditions contractor	31st August 2021
Modular installation (Staff Change) & refurbishment of existing estate (administration) complete	30th September 2021
Demotion of Woodpecker Lodge & Staff Change	7th November 2021
Underground services diversions completed	31st December 2021

1.15.3 Risk Register/ Risk Management Plan

The Trust has developed a risk register for the project which is aligned to the Trust' Corporate Risk Register and describes how risk will be managed during the delivery of the project. This is set out in Appendix 6g: Risk Register.

1.15.4 Benefits Realisation Plan

A benefits realisation plan (BRP) has been developed by the Trust and is set out in Appendix 6h: Benefits Realisation Plan.

The Trust has revisited the benefits associated with the project as outlined in the Economic Case Section 3.14. The BRP incorporates all the benefits associate with the projected including cash releasing and monetised non cash releasing benefits.

1.15.5 Contract Management

Main Theatres Building Procure 22 NEC3

The Procure 22 NEC3 contract adopted for the Main Theatres Building will be managed by the Trust's Project Manager. The Trust's Project Manager has experience of this contract in a number of trusts.

Any changes whether in respect of scope of work, the budget, or the realisable benefits (see section 3.14 of the Economic Case) will be subject to a formal change control process, which will be managed on behalf of the project by the Project Manager.

Changes can only be implemented after they have been discussed and approved at the Monthly Progress Meeting. Changes will not be implemented until approval for that change has been recorded either via an e-mail or meeting notes. Changes once approved by the Trust will be administered in line with the processes set out in the NEC3 contract.

The Trust has considered the organisational and cultural impact of delivering the preferred option. In this respect, the Trust considers that this is a relatively low risk project as it involves the "lift and shift" of the Main Theatres team from old, unsafe accommodation into a new purpose-built area with no workforce re-profiling required. User groups have been established and will continue as a forum to plan the design, equipping, commissioning and operationalisation of the new facility.

The users have been involved in the development of the project and support the preferred option. Further information can be seen in section 6.12 and also the signed off plans (see section 4.6.8 of the Commercial Case).

Enabling - Change Control

The Trust and Excel will execute a JCT Design and Build Contract for the works. The Trust's Project Manager has experience of this contract.

A similar approach outlined above, will be adopted for the enabling schemes supplemented by weekly meetings due to the short duration of the works.

The table below sets out a summary of key other commercial components associated with the project.

Table 1-18 Other Key Management Case Deliverables

Deliverable	Commentary
Building Information Modelling (BIM)	BIM is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to plan more efficiently, design, construct, and manage buildings and infrastructure. The BIM Execution Plan is set out in Appendix 6k: BIM Execution Plan. The BIM Execution Plan will be primarily used as an internal document within the Contractor's Design Team, with a BIM model being used as a tool to benefit the Trust in terms of project delivery, aiding design co-ordination and mitigating project risk. The full BIM is a model in AutoCAD supported by a series of data collections (reference Section 6.10 of the Management Case).
Government Soft Landings (GSL)	The Trust's PSCP Graham Construction has worked with the Trust and developed the following. Stage 3 FBC of the P22 GSL Toolkit have been completed. • The following log books have been initiated. - NWAFT Hinchingbrooke Theatres Building User Guide V01.doc - NWAFT Hinchingbrooke Theatres CIBSE TM31 Building Logbook.doc • 22 Stage 3 MEP Design Processes Metering Strategy. The above documents are set out in Appendix 6l: Government Soft Landings (GSL).
Health Gateway	The impacts/risks associated with the project have been scored against the risk potential assessment (RPA) for projects. The RPA score is low. At OBC stage, the RPA was submitted to the Department of Health and Social Care. The FBC RPA is attached at Appendix 6m: Gateway RPA.
NHS Premises Assurance Model (PAM)	The Trust Director of Estates and Facilities has completed the PAM which was approved by the Trust Board on 13 July 2021. The PAM in Appendix 6n: NHS Premises Assurance Model Illustrates that there are further actions that require completion to bring the assessment scores to a 'Good' rating.

Deliverable	Commentary
Quality Impact Assessment	The QIA is provided in Appendix 6r: Quality Impact Assessment and shows no negative impacts and some positive impacts in relation to this project.
RACI	The RACI matrix has been completed and is set out in Appendix 6t: RACI Matrix.

1.15.6 Post Project Evaluation (PPE)

The P22 Pre and Post Occupancy Evaluation toolkit will be utilised. Graham Construction will work with the Trust and their PSCP team to complete these at a local level to deliver the Pre and Post Occupancy Evaluation stages. The Trust recognises that to complete the P22 POE, input will be required from a number of disciplines including Patient, Carer, Staff and Building User Surveys and metrics, with the PSCP Champion and Trust lead.

The Trust has undertaken a pre-occupancy evaluation which supports the establishment of the targets and metrics against which the project outcomes will be evaluated once in use. This is set out in Appendix 6o: P22 Pre-occupancy .

The Project Occupancy Review (POR) will be undertaken in August 2023 which is circa two months after the “go live” (reference Section 6.15 of Management Case). The Post-Project Review (PPR) will be undertaken in January 2024 which is 6 months from contract completion (reference Section 6.15 of Management Case). This will assess that the service is running and delivering the anticipated benefits.

In tandem the Trust will complete the NHSEI PPE requirements. The Project Implementation Review (PIR) will be undertaken in December 2023 to capture lessons learnt.

The Post-Evaluation Review (PER) for reviewing how well the service is running and delivering its anticipated benefits will be undertaken in April 2024.

1.15.7 Stakeholder Communications & Engagement

The Trust has a Communications and Engagement Strategy 2021-24. The Trust has undertaken the following which are set out in Appendix 6p: Stakeholder Engagement & Communications Reports and are consistent with its strategy for this project. This includes:

- Stakeholder analysis – April 2021.
  This outlines the key stakeholders and associated Power Interest matrix
- Communications & Engagement Action plan.
  This sets out the Trust’s plan and progress since 15 February and tasks for 2021.
- Theatres Bock Façade: Stakeholder engagement report dated 14 May 2021.
  The Trust sought the views of a wide variety of key stakeholders to inform its choice of exterior façade for the new theatres block at Hinchingbrooke Hospital. This has been incorporated into the design of the preferred option: Option 1 : Do Minimum.

1.16 Recommendation

This FBC sets out an urgent and compelling case to invest in new Main Theatres. This will address the major structural safety issues associated with the existing building and will ensure that surgery can be undertaken in buildings with the amount of space required to meet national standards and configured to achieve best practice ways of working. The preferred option is affordable from a capital and revenue perspective and delivers the best value for money outcome. All key benefits have been identified within the Benefits Realisation Plan included at Appendix 6h: Benefits Realisation Plan and risks have been identified and assigned to owners in the Trust Risk Register at Appendix 6g: Risk Register to ensure they are managed appropriately. The Board is asked to approve the FBC.

2 Strategic case

2.1 Introduction

The purpose of this section is to review the scope of the proposed scheme as set out in the Outline Business Case (OBC) and re-confirm that it continues to fit within the Cambridgeshire and Peterborough Integrated Care System (ICS) plans and Trust's existing clinical and estates strategies and provides a compelling case for change in terms of existing Hinchingbrooke Hospital site challenges and future operational needs.

The Full Business Case (FBC) re-confirms the preferred option in the OBC is to develop a new two storey facility with seven theatres on the first floor and shell space on the ground floor for future non-clinical use. The theatre floor will be connected to the main hospital and the Treatment Centre via a corridor. The theatre facilities are currently located within the 'Best Buy' area of Hinchingbrooke Hospital which includes Reinforced Autoclaved Aerated Concrete (RAAC) panels. The current facilities have multiple infrastructure risks relating to RAAC limiting the use of theatres and adversely impacting on addressing the post COVID-19 elective backlog. The RAAC risk is one of the highest risks on the Trust's risk register.

This Full Business Case (FBC) seeks approval for urgently needed capital investment of £30.14 million in new Main Theatres at Hinchingbrooke Hospital. This funding relates to a successful Wave 4 bid from the Sustainability and Transformation Programme in July 2018 (awarded December 2018).

The capital and funding requirement has increased since the approved OBC, but still remains within affordable parameters. The project's capital cost is £30,136k (including VAT), an increase of 9.8% since OBC. Wave 4 capital funding of £22,768k will be supplemented by £7,368k ICS capital – sourced via an emergency capital application. This is detailed in the Economic Case Section 3.10 and Financial Case Section 5. ICS support for the project is set out in Appendix 2d: Letter of Commissioner & ICS support.

The Trust is also seeking early drawdown funding in quarter 2 2021/2 (reference Section 4.8.4) which includes £794k to meet planned enabling costs relating to the reprovision and demolition of Woodpecker Lodge which is located on the proposed site of the new Main Theatres facility. This building is beyond its useful life and will need to be re-provided irrespective of the Main Theatres scheme.

This project is Phase 2 of a wider Development Control Plan (Phase 3 - Appendix 2a: Development Control Plan) for the Hinchingbrooke Hospital site which has been developed alongside this vital element for the future of the Hinchingbrooke site. Phase 1 was expansion of Urgent Care was completed on time and within budget in November 2020.

The Main Theatres are currently located within RAAC panel facilities which need to be replaced as soon as possible because of the structural safety issues associated with RAAC panels. This urgent and compelling case for change is described in the Strategic Case of this FBC. NHSEI requires all RAAC panels to be removed by 2035.

The preferred option, Option 1: Do Minimum delivers the re-provision of the 7 existing Main Theatres within a new purpose-built facility that joins to the first floor on the Main Hospital and is linked to the current Elective Treatment Centre. This will provide a fast route to the Obstetric Theatre from the Labour Ward and with a vertical adjacency to the Critical Care Unit. The preferred option, Option 1: Do Minimum, incorporates:

- A new Main Theatre building which comprises:
  - A ground floor which is earmarked for future fit out for non-clinical administration or support services. Funding for this fit out does not form part of this business case. The space does not lend itself to clinical services because it is a deep planned with constraints on patient flows and clinical adjacencies at ground floor level.
  - First floor. 7 new theatre suites incorporating an admissions area, recovery and staff support spaces including staff change areas and MDT room. One theatre within the Main Theatres building will be dedicated to Obstetric Surgery. Three of the theatres are laminar flow. The new Mains Theatres Building will be connected to both the main hospital building and PFI Treatment Centre to facilitate the smooth transport of patients and staff.
  - Flat roof – external plant accommodation.
- Relocation of existing buildings on the new build site including.
  - Demolition and removal of Woodpecker Lodge (administration) and Staff Change facility.
  - Removal of 51 parking space. Trust will implement its Green Travel Plan and therefore spaces will not be re-provided (Section 4.16 of the Commercial Case).
- Enabling incorporates the development of a new
  - Modular building for Staff Change facilities.
  - New modular stores adjacent to Elm Ward.
  - Reprovision of Woodpecker office accommodation within existing, refurbished facilities elsewhere on the Hinchingbrooke site, taking into account the impact of agile working.

The capital costs of fitting out the shell space on the ground floor within the Main Theatres facility for potentially non-clinical use will be evaluated and developed in future as part of Phase 3 wider hospital redevelopment.

The Preferred Option 1 Do Minimum will provide the following:

- A Main Theatre suite of 7 theatres with suitable patient flows, developed with user requirements and inputs and in accordance with HTM guidance and best practice.
- Air handling as appropriate to operating theatres, including both laminar flow and conventional ventilation systems, and giving the correct and robust compliant air changes required.
- A design thoughtfully produced with enhanced patient experience and more efficient and effective patient flows in mind and in conjunction with user requirements and inputs.
- Areas compliant with Department of Health and Social Case Health (DHSC) Building Notes (HBNs) and Health Technical Memoranda (HTM)s except a limited number of agreed derogations (reference Section 4.6.9).
- Areas have been fully signed off by users and Infection Prevention and Control.
- Designated and HTM compliant plant areas.
- A shell and core ground floor to provide space for future provision of non-clinical services.
- Appropriate and robust IT and telephony infrastructure and cabling.
- Structured enabling works plan to re-provide displaced services.
- BREEAM excellent and assessment score of 80.6% (reference Section 4.6.14).
- Design which delivers the NHS Net Zero Carbon policy (reference Section 4.6.15).
- Modern Methods of Construction assessment score of 71% (reference Section 4.10).

The Business Case builds on the Wave 4 STP Bid (in lieu of a Strategic Outline Case (or SOC)). The Wave 4 Bid was approved by the Trust Board on 9 November 2018. It was then submitted to NHS England and NHS Improvement (NHSEI) and the Department for Health and Social Care (DHSC). On 14th December 2018, the Trust received notification that its STP bid had been successful (reference Appendix 2h: STP Letter of Support 2018).

Checklists have been completed in Appendix 2b: Completed Fundamental Criteria & Estates Checklists and Appendix 2n: Completed NHS I Checklist.

The requirements and conditions set out in the OBC approval letter dated 23 April 2021 have been met and the Trust's response set out in Appendix 2c: OBC Requirements & Conditions.

2.2 Changes since the approval of the OBC reflecting the FBC Preferred Option

The OBC was submitted to NHSEI in December 2021 and reflected Stage 2 design development (using Procure22 (P22P)). Work has progressed on the Stage 3 Design process in conjunction with the Trust's P22 Principal Supply Chain Partner (PSCP). A number of changes have been made since the OBC was drafted, the most significant of which are described below:

- Enabling Works. At the time of the OBC submission, an assumption was made that 100% of the staff office accommodation within Woodpecker Lodge and the Staff Change Facility would be dealt with through agile working. The only enabling works costs would therefore be the reprovision of the Staff Change facility through a modular development. Since then, a comprehensive workspace utilisation and agile working exercise has been undertaken. This has reduced the need for staff offices by circa 11%. There are costs associated with the need to refurbish this accommodation and the works have been factored in to the scheme capital costs.
- Roof Plant. Within the OBC, assumptions were made in relation to the proposed plant solution based on the information available at the time and prior to the detailed work being undertaken in relation to BREEAM and Net Zero Carbon. Since then, the level of design development and work on BREEAM and Net Zero Carbon has progressed and this has necessitated a significant increase in the number of photovoltaic (PV) roof panels required, with a consequent need to increase the supporting substructure. These panels also need to be appropriately supported. The proposed roof plant solution is compliant with the current HTM guidance.
- Foundation Strategy. The OBC was developed prior to undertaking the Geotechnical Survey. Whilst the survey results have ruled out the need for piling, they have identified the need for increased size of foundations pads which adds to time and cost.
- Service Diversion. The Geotechnical Surveys undertaken since the OBC has suggested more underground service diversion work is required than originally anticipated.

2.3 Background and Scope of the Scheme

2.3.1 The STP/ICS bid

The STP bid was submitted in July 2018. The rationale was as follows:

- Deliver the ICS and NWAFT clinical strategies.
- Ensure adequate and safe bed capacity on the HH site.
- Ensure the Hinchingbrooke Hospital estate is compliant with all required clinical standards.

The four main drivers for capital investment at Hinchingbrooke Hospital were:

- The ability to cope with predicted demographic growth.
- Lowering bed occupancy (moving from 96% to 92%).
- Implementing the agreed ICS and Trust strategy.
- Infrastructure and Environmental Compliance.

The ICS proposals would achieve delivery of the NWAFT Clinical Strategy, increase bed capacity to meet agreed ICS priorities and was anticipated to require central capital investment for the following components:

- Expansion of the HH Emergency Department and the Acute Assessment Unit.
- Upgrading (refurbishment) of the Main Theatres facilities.
- Two modular wards - 30 beds each.

2.3.2 Scheme breakdown and cost apportionment

The Trust was awarded £25.536m capital allocation to address the elements described above. Table 2-1 sets out the individual components.

Table 2-1: STP funding to support scheme.

Cost element	Cost	Comment
Original capital allocation	£25.536m	
Split for ED/AAU/ACU	£2.768m	Split into two schemes as requested by the Trust on 18.01.19 and subsequently agreed by the Department of Health and Social Care on 27.02.19
Split for Beds/Theatres	£22.768m	

In January 2019, the Trust proposed that the funding be split into two separate business cases:

- Expansion of Emergency Department, AAU and ACU (£2.768m).
- The provision of additional beds and the re-provision of theatres (£22.768m).

Construction of the ED/AAU/ACU was completed on time and within budget in November 2020.

The original intention was for the OBC to cover the investment required to upgrade (refurbish) Main Theatres and provide 60 additional beds. Subsequent to the STP submission, there were a number of key changes. These are discussed below.

2.3.3 Validation of original STP/ICS bid

A key driver within the national NHS strategic context is the need for rationalisation of estate and getting the best value for money from land and buildings. This project is the first phase in development of the Hinchingbrooke Hospital site to address significant infrastructure concerns, the Reinforced Autoclaved Aerated Concrete (RAAC) panel issues in the roof and walls across much of the site and to ensure the Hospital is fit for purpose.

The case also sets out the changing demographics and size of the local population and the vision and priorities of the Cambridgeshire and Peterborough STP/ICS and how the project delivers some of these key requirements.

There were detailed discussions with the STP/ICS about the system implications when the STP Wave 4 bid was developed. All of the key assumptions set out in the submission remain valid. There has been ongoing engagement with the STP and the CCG.

2.3.4 Change in scope since the STP/ICS bid

The project scope for Main Theatres has remained consistent with the original STP Wave 4 bid. Following discussion with NHSEI and DHSC in November 2020, the wards totalling 60 bed were removed because of the.

- Pressure this was placing on a challenging affordability envelope.
- Need for further discussions across the system to agree how Stroke Services should be configured across the ICS footprint.

Given the existing Main Theatres are located in one of the highest risk areas of the Reinforced Autoclaved Aerated Concrete (RAAC) panel constructed “Best Buy” part of the Hospital, the Board agreed that the focus should be on resolving the Main Theatres issues. With NHSEI East of England’s support, a paper was drafted by the Trust stating the case for a change in scope to remove the wards and this was formally endorsed by the Department of Health and Social Care on 19th November 2020.

In November 2020, the Cambridgeshire and Peterborough Finance Performance & Planning Group (FPPG) reviewed and accepted the premise for the change in scope and were supportive provided there was no change to the financial implications and benefits assumed within the long-term plan. The Trust’s Finance Team were asked to

review this, and the Trust was able to confirm that this was the case and that the appropriate assurance could be provided. The ICS remains supportive for the redevelopment of the Hinchingbrooke Main Theatres and formal letters of support are shown in Appendix 2d: Letter of Commissioner & ICS support.

2.3.5 Case for change & issues preventing refurbishment

Currently, Main Theatres are located in the 'Best Buy' area of the Hospital site. This area is built using RAAC panels.

The integrity of RAAC panel constructed buildings has been compromised due to failing concrete and cracking and movement within these type of buildings. NHSEI has issued a requirement (Appendix 2e: NHSEI RACC Report) for survey of these panels with instruction to health bodies to remove all RAAC panels completely from NHS sites by 2035.

Plank deflection issues can result in long term creep of the plank on the supporting lintel potentially leading to collapse. Other factors resulting in failure include:

- Longitudinal reinforced steel bar being of an inadequate length.
- Cut planks on-site with no transverse reinforcement at plank end (dependent upon where the plank is cut).
- Short end-bearing on supporting walls.
- Very high span/depth ratios.
- Poor aggregate mix, resulting in shearing of the planks and collapse.

Each of the above facets may contribute to one of the two ways in which the planks can fail:

- Under excessive load - this is preceded by bending (deflection).
- Deterioration of the edge of the plank that bears on the supporting concrete beam, causing it to fail.

Refurbishment of theatres is not a viable option because:

- It would not fully eradicate the RAAC panels and therefore the risk of structural failure would remain.
- Reinforcement of RAAC panels is not an option as the structure is failing with steel supports not providing a suitable option due to the clinical environment and existing lack of space for efficient patient, staff and goods flows.
- Failure to meet HBN standards on space requirements.
- Annual surveys will need to be undertaken and in addition, plant will need to be stopped for the duration of the work (6 months) with no assurance that it will fully function again or even start due to its age (see next bullet).
- The existing plant is old, non-compliant and cannot provide any assurance in relation to continuity of service due to the risk of failure. It would be extremely unlikely that any long-term solution could be achieved by replacing the plant through a refurbishment scheme.
- Upgrading plant is not an option in the current theatres' location as:
  - There is insufficient space in the current plant room to house the new larger plant that would be required.
  - Plant could not be located on the roof due to load and inability of the roof to cope with the weight.
  - Plant could not be located on the ground floor due to the weight of the ducting required to drop down into the theatres and the inability of the roof to hold the weight.
  - A steel structure or similar would need to be built above the existing theatres to house the plant meaning crane oversailing, disruption to the existing service (this could not be carried out safely with operating still taking place and would entail an extended build period with the associated theatre downtime (18 months estimated).
  - Should an additional structure be built to accommodate plant and/or ducting, there is a high risk of penetration due to piping, ductwork etc of existing RAAC structure causing further compromise and loss of integrity.
- Does not achieve Investment Objectives and Critical Success Factors.

The Trust has prepared a Development Control Plan (DCP) (Appendix 2a: Development Control Plan) to establish the long-term plans for the site and the eradication of the RAAC panel areas was a high priority in the process of development of the OBC and FBC. The DCP shows clearly that this area of the Hospital should be demolished in line with expectations from NHSEI for eradication of these panels. The DCP was approved by the Trust Board in 2020.

2.4 Relationship with RAAC Project

Whilst this FBC focuses on the investment to re-provide the current Main Theatres in a new build facility, there are a number of RAAC-related issues that need to be considered between Option 1 : Do Minimum Preferred Option and RAAC Project.

Within the RAAC project, work is ongoing to determine the level of structural intervention required in Main Theatres to ensure they remain safe whilst in use in the intervening period until the new Main Theatres come on line. Initial surveys have been undertaken using scanned data and more intrusive surveys are planned using access hatches.

A number of acrow-props[7] and associated boxing have been installed in clinical area of Main Theatres to secure immediately the structural integrity of the area. This will be kept under continuous review.

However, whilst the need for further acrow-props cannot be ruled out, it is not anticipated that there will be a requirement for major investment for safely managing the risks over the coming years. This will be in addition to the cost of annual surveys. The costs of surveying and undertaking Failsafe works are covered by the Trust's RAAC Project, separately funded by NHSEI. The position will continue to be reviewed.

During the construction of the new Main Theatres facility, the PSCP will be required to monitor continuously the impact of foundation and construction works on the RAAC buildings, including but not limited to Main Theatres. As there is no requirement for piling, the risk of associated vibration is reduced but there will still be risk associated with the proposed foundation pad solution. The enabling works will also potentially require access to the RAAC panel part of the Hospital for re-provided Woodpecker and Staff Change office accommodation. This relates to work needed to ensure compliance with ventilation standards.

Given the close link between the RAAC Project and the redevelopment of the Hinchingbrooke Hospital site, the Trust has changed its governance arrangements so that RAAC now sits within the Hinchingbrooke Hospital Redevelopment Programme (HHRP) , thus ensuring appropriate alignment between the two programmes of work. The Hinchingbrooke Hospital Redevelopment Programme (HHRP) Programme Director now has oversight for RAAC, but RAAC and HHRP retain their own dedicated SROs given there are separate reporting lines and accountability into NHSEI. The RAAC Project Lead attends the HHRP Finance Sub-Group and provides regularly updates on key financial issues, including the need for internal and external business cases and reporting of RAAC project spend against forecasts, by workstream.

2.5 National Strategic Context

2.5.1 Getting It Right First Time (GIRFT)

The Trust continues to review and apply the various GIRFT recommendations. GIRFT has been the driving factor for the recent Trauma and Orthopaedic Reconfiguration resulting in transfer of more complex orthopaedic electives to Hinchingbrooke and all orthopaedic trauma to Peterborough City Hospital. Future opportunities for applying GIRFT recommendations for urology and plastics are dependent on fit for purpose theatre facilities. The modelling for theatre requirements has been based on the future needs whilst considering transformation and efficiency opportunities. GIRFT will continue to be an important consideration and will be addressed as part of ongoing work to redesign services and is not specific to this capital investment scheme.

The Main Theatres are over 30 years old, and the introduction of modern facilities will be a factor in making improvements to benefit patient care and transformation for example use of robotics in the future.

2.5.2 Post COVID-19 Elective Recovery:

Fit for purpose theatre facilities are critical for recovering the significant elective waiting lists. The national guidance is to return to the pre COVID-19 size of the waiting lists by 2014. ICSs are encouraged to work as a system and the providers are asked to collaborate by combing the waiting lists for the most challenged specialities. Due to service improvements and recent T&O transformation, the Trust is in a position to support Cambridge University Hospital NHS Foundation Trust with its orthopaedic lists which now has more than 1300 patients waiting over 52 weeks. This support is however being affected by the current theatre facilities. New theatre facilities will ensure that the Trust are able to not only effectively managing own waiting lists but support the system to recover more quickly (reference Section 2.9).

2.5.3 The Carter Report (June 2015 and Feb 2016)

The solution will comply with the Carter Report (2016), as there will be:

- Space saving when re-providing administrative functions
  The replacement administrative area (re-provision of the Woodpecker building currently on the site of the new building) will be reduced in scale due to the impact of agile working.
- Locating in most efficient way
  The new Main Theatres block will be located adjacent to the Treatment Centre theatres and will be on the same level. This will provide shorter travel distances for staff and the movement of equipment between the two areas. There will be better staff support across the two areas due to the co-location.

The design and details associated with the scheme are outlined in Section 4.6.

2.5.4 NHS Long Term Plan (January 2019)

The NHS Long Term Plan focuses on building an NHS fit for the future by:

- Enabling everyone to get the best start in life.

[7] Acrow Props are designed to be used as a temporary support for walls, beams and ceilings.

- Helping communities to live well.
- Helping people to age well.

The relevant sections which influence the case for change at the Trust are set out in Table 2-2 which also shows how the project aligns with the plan.

Table 2-2 Project alignment with NHS Long Term Plan

Key report recommendations	How the recommendations can be implemented
• Support for planned surgical procedures. • Making better use of capital investment and existing assets. • Support commitments made in the 5-year forward view. • 2,000 – 3,000 new beds • Patient safety.	• Purpose built Main Theatre facility should create an optimal configuration for surgical throughput, with better links to the Treatment Centre for more integrated team working. • The Treatment Centre was developed under PFI. The PFI building has 14 years left on the contract and will then revert back to the Trust in condition B. The Trust is retaining use of the Treatment Centre and will maintain the link to support flexible and adaptable service provision at the Hospital as part of the long-term vision for the hospital. A variation under the contract schedule 22 has been agreed with the PFI Proj Co (Reference Section 4). However, the Trust is not able to sign as it cannot enter into a financial commitment until it has certainty that the project can go ahead. On this basis, the Trust will await FBC approval before signing the variation. The new Main Theatre block is strategically linked to the existing blocks whilst also providing opportunities for future expansion subject to separate and affordable business cases. This building is being created as part of a whole site vision which has been developed within the Trust and has Board support. The Main Theatres building has been designed to support future links to the proposed redevelopment and to be functional within the RAAC context and in future as part of a whole hospital re development. • This Main Theatres scheme is Phase 2 of the Hinchingbrooke Hospital Redevelopment programme, Phase 1 being the upgrade of the Emergency Department (undertaken through a separate project). The DCP is being reviewed with a view to adopting a phased approach to the redevelopment of the remainder of the Hinchingbrooke Hospital site rather than a single phase (Phase 3) envisaged in the original Development Control Plan. • All new build HIP projects will be BREEAM 'Excellent' and Net Zero Carbon. Modern Methods of Construction (MMC). • Avoids £7.6m of backlog maintenance. • Use of existing buildings within the options appraisal process to ensure all possibilities for the project have been explored. • Aligning this project into the wider Development Control Plan work to ensure site efficiency, best possible placement of new build options and estate rationalisation (Phase 3). • Ensuring development options maximise safety for patients and staff, any work around existing 'Best Buy' hospital estate will reference RAAC panel inspections and recommendations.

2.5.5 Levelling up

The scheme is designed to address resilience and compliance issues for Main Theatres, improve the patient environment and achieve better alignment with future site development plans. Tackling inequalities in health and care provision and health outcomes for the poorest areas compared with those with the best outcomes are key priorities for the Cambridgeshire and Peterborough system.

The Trust is currently developing the Trust's Corporate Strategy. This will consider its role as an 'Anchor Institution' as one of the key underpinning strategies. Coupled with this, is the Trust's future Green Plan which will, in tandem, place a renewed focus on the Trust's role in the local demographic and will go beyond health and care with opportunities for employment and estates use.

2.6 Local Strategic Context

2.6.1 Cambridgeshire & Peterborough ICS

The following organisations form part of the Cambridgeshire & Peterborough ICS:

- Cambridge University Hospitals NHS Foundation Trust.

- Cambridgeshire and Peterborough NHS Foundation Trust.
- Cambridgeshire Community Services NHS Trust.
- Cambridgeshire County Council.
- East of England Ambulance Service NHS Trust.
- NHS Cambridgeshire and Peterborough CCG.
- North West Anglia NHS Foundation Trust.
- Papworth Hospital NHS Foundation Trust.
- Peterborough City Council.

Cambridgeshire & Peterborough ICS has created their 'Fit for the Future' plan. This plan is available at Appendix 2f: Fit for Future STP Plan.

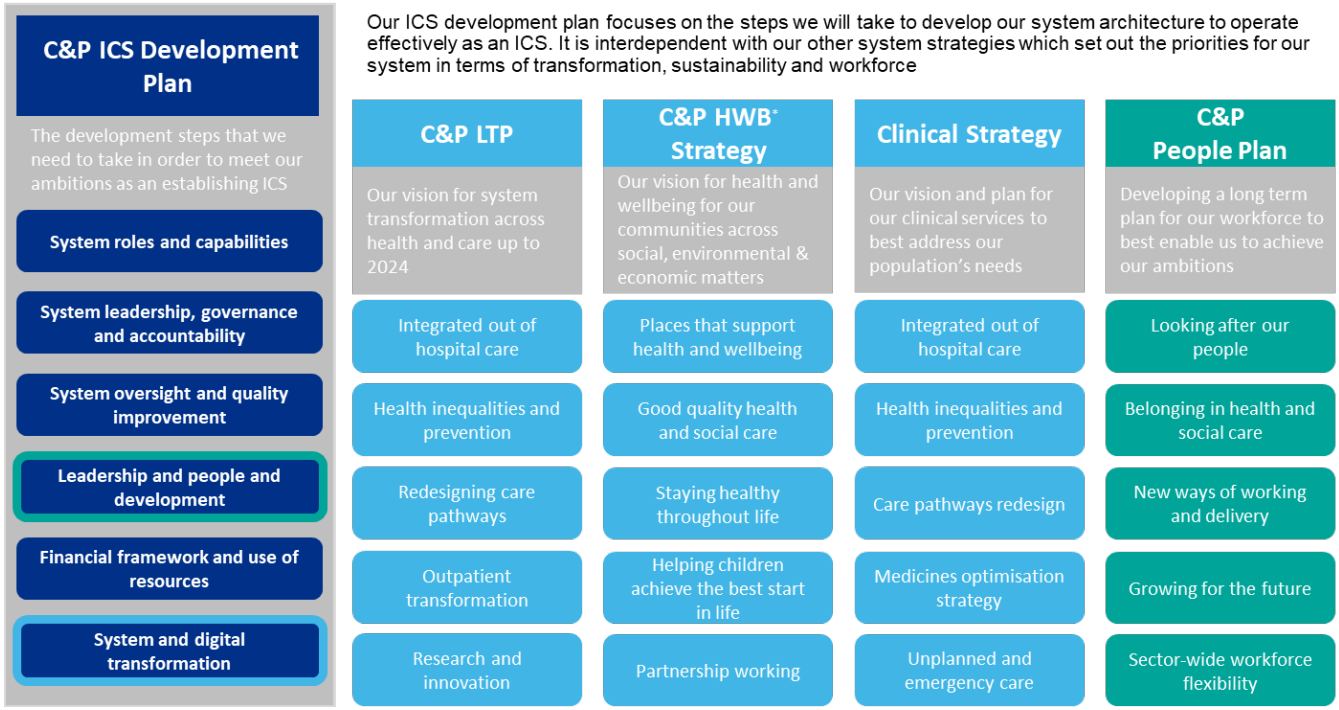
Within the ICS's 'supported delivery' priority within the plan there are proposals relating to the better use of land and buildings.

The relevant elements of this priority are:

- "We want to bring all our NHS and local government sites up to modern standards."
- "We want to explore how we can work together to get more value from our land and buildings and bring all our sites up to modern standards."
- "There is a great deal of building development in Cambridgeshire and Peterborough, so we see opportunities for new strategic partnerships, such as the planned Hinchingbrooke Health Campus."

The C&P ICS draft development plan is attached and set out in Appendix 2g: C&P ICS Draft Development Plan. Figure 2-1 shows the system architecture being developed for the ICS.

Figure 2-1 Main functions of the Hinchingbrooke Hospital site



2.6.2 Population

A new Joint Strategic Needs Assessment (JSNA) was published in 2020 showing changes in population. Across Cambridgeshire and Peterborough, this shows significant population change over the next 15 years. This is shown in Table 2-3.

Table 2-3 Growth in population in the Cambridgeshire area published 2020

Area	Year					Population change	% Change
	2018	2021	2026	2031	2036	2018-2036	2018–2036
Cambridge	125,758	125,294	125,464	217,077	127,264	+1,506	1.2%

Area	Year					Population change	% Change
East Cambridgeshire	89,362	91,196	93,432	94,928	96,310	+6,948	7.8%
Fenland	101,491	104,601	108,799	112,158	115,144	+13,653	13.5%
Huntingdonshire	177,352	179,640	182,727	185,125	187,442	+10,090	5.7%
South Cambridgeshire	157,519	159,944	162,374	163,248	163,832	+6,313	4.0%
Cambridgeshire	651,482	660,675	672,776	682,536	689,992	+38,510	5.9%
Peterborough	201,041	207,890	216,231	222,079	227,026	+25,985	12.9%
Cambridgeshire and Peterborough	852,523	868,564	889,007	904,614	917,018	+64,495	7.6%

2.6.3 Joint Strategic Needs Assessment (JSNA) (district summaries 2018/2019)

A Joint Strategic Needs Assessment (JSNA) aims to describe the current and future health, care and wellbeing needs of the local population.

In 2018/2019, a specific JSNA dataset was created for Huntingdonshire District Council locality (the district in which the Hospital resides) within the district summaries. Set out below are the latest statistics specifically for this area.

The summary states:

- Health outcomes in Huntingdonshire are broadly very good and often statistically significantly better than national averages.
- Life expectancy for males and females is above the national average.
- Health concerns are alcohol abuse in young people, excess weight in adults and the prevalence of respiratory disease.

2.6.4 Cambridgeshire & Peterborough STP Estates Strategy

This project is fully aligned with the Cambridgeshire & Peterborough Sustainability and Transformation Partnership's (STP) Estates Strategy (July 2018) having been prioritised through the national STP capital prioritisation process (STP Wave 4). A letter of confirmation was sent by the STP on 14 December 2018, and this is included at Appendix 2h: STP Letter of Support 2018.

The ICS is operating in shadow form from Quarter 4 2021/22 and formalised in Quarter 1 2022/23. The Integrated Care Providers (ICP) will then be confirmed, and ICS Clinical Strategy developed and ratified. The ICS Estates Strategy will subsequently be developed and ratified.

2.6.5 Clinical Service Strategy 2018 - 2023

The Trust is developing its Clinical Strategy for the next five years, but this will not be ratified before the submission of this FBC. Consequently, this FBC references the Trust's existing Clinical Strategy 2018-2023. It should be noted that this development is fully consistent with the Trust's developing Clinical Strategy.

The Trust Board agreed its existing five-year Clinical Service Strategy in March 2018. This was supplemented by the Trust Estates Strategy in November 2018 and an Addendum to the Estates Strategy was completed in June 2020, with which this business case is aligned.

Both are integral parts of the agreed ICS/STP Clinical Strategy (first published in October 2016) and ICS/STP Estates Strategy, along with the NHS Long Term Plan.

The existing Clinical Service Strategy has been clinically led, with engagement from all levels of health care professionals in the Trust. The strategy is available at Appendix 2i: Clinical Strategy. The alignment of the project with this strategy is set out in Table 2-4. The ICS is operating in shadow form from Quarter 4 2021/22 and formalised in Quarter 1 2022/23. The Integrated Care Providers (ICP) will subsequently be confirmed, and ICS Clinical Strategy developed and ratified.

Table 2-4 Alignment of this project with the Trust Clinical Strategy

Vision element	Detail	Alignment
Delivering outstanding care and experience	Increased use of day case surgery, 'see and treat' outpatient appointments, and ambulatory care to avoid emergency admissions. Experience where this is working well in areas of the Trust will be drawn upon to enable delivery in areas where this is not yet provided.	Provision of new Main Theatres to support new ways of working to increase patient lists and deal with waiting list backlog.
Recruiting developing and retaining staff	The ability to attract, recruit and retain a high-quality workforce.	Anecdotal evidence suggests that newly upgraded/built areas will attract new staff and aid staff retention.
Improving and developing our services and infrastructure	Safe, compliant and modern theatres.	New theatres will be compliant with relevant DHSC HBNs and HTMs except a limited number of agreed derogations (reference Section 4.6.9)
Improving and developing our services and infrastructure	Separating elective (planned) and emergency patients through the use of dedicated beds, theatres and staff can achieve a more predictable workflow, provide excellent training opportunities, and improve the care for patients.	Improved facilities in respect of Main Theatres.

2.6.6 NWAFT Estates Strategy 2019 – 2026 and Addendum

The Trust has produced a comprehensive Estates Strategy across the three sites it owns. The Trust's Estates Strategy is available at Appendix 2j: NWAFT Estates Strategy (+ Addendum).

The Trust commissioned an Addendum to the Estates Strategy in early May 2020. This Addendum is attached at Appendix 2j: NWAFT Estates Strategy (+ Addendum).

2.6.7 Hinchingbrooke Hospital site composition and services

Figure 2-2 Ariel view of site

The Hinchingbrooke Hospital opened in 1983. It is a c.300 bed district general hospital located at Hinchingbrooke Park in Huntingdon. The Hospital provides a wide range of specialties including breast surgery, ear, nose and throat, general surgery, gynaecology, oncology, ophthalmology, orthopaedics, urology, and vascular services. The Hospital has an emergency department (redeveloped facilities are opened in November 2020) and a maternity unit. Children's inpatient and outpatient services are provided on site by Cambridgeshire Community Services. Also, on the Hospital site is the 23-bed Treatment Centre which opened in 2005. The Hinchingbrooke Hospital site is owned by NWAFT.

Figure 2-3 shows the location of the main functions of the site:

Figure 2-3 Main functions of the Hinchingbrooke Hospital site

Main Theatres are located within the pink part of the main building of the Hospital as shown in the figure above. The facilities on the site are now dated in relation to its clinical functionality and capacity to meet future demand due to the risks presented by:

- Old and failing shared plant
  - Paired theatres with one Air Handling Unit (AHU) meaning an issue with failing plant can effectively close two theatres at a time with the risk that the plant cannot be repaired.
- Safety concerns with RAAC panels and ongoing survey and maintenance of the area
  - The integrity of the concrete panels that comprise the building in which the current Main Theatres are located will need to be constantly monitored with the possibility of acrow-props continuing to be needed at short notice to maintain short term structural integrity.
- Cramped working areas and restricted staff flows and staff welfare
  - Limited space within existing Main Theatres' areas cause issues with movement and storage. Staff welfare areas are very limited meaning staff cannot take their breaks or lunch in the area. Higher staff turnaround may result due to these conditions and extra sessions to reduce backlog adding to the pressures.
- The patient environment reflects standards set down during the time the Hospital was built and is non-compliant with current HBN guidance.

A number of modular buildings have been added around the original two storeys building to provide specific expansion zones.

2.7 Current Situation

2.7.1 Activity

Main Theatre numbers would remain the same as the current capacity of 7 theatres. Growth in surgical activity will be managed through an ongoing service improvement and an ambitious transformation programme. In respect of the Trust meeting additional capacity through population increase, this will be achieved as follows.

- Reducing the risk around loss of theatres due to failure of old and non-compliant plant (currently one air handling unit to two theatres meaning the loss of two theatres per breakdown).

- Reducing the risk around loss of theatres due to structural issues or surveys in relation to RAAC panels
- Increasing productivity through better designed patient, staff and goods flows and further opportunities through introduction of robotics and future proof end to end digital solutions
- Shift towards more outpatient procedures and more day cases (managing bed requirements)

2.7.2 Estate condition

The Trust's last six facet survey was completed in 2021. The report specifically mentions the issues around the Main Theatres location in the 'Best Buy' area of the Hospital. It states, "The building is almost entirely constructed of a concrete cast in-situ frame with pre-cast (Durox) concrete load bearing cladding panels and roof decking". It goes on to mention specifically Main Theatres as follows:

"The theatres on the first floor were found to be in poor physical condition as was the associated air handling plant, with much of the plant and equipment dating from the original installation and being life expired".

The six-facet survey is available at Appendix 2k: 6 Facet.

2.7.3 Backlog maintenance

The Trust has undertaken some refurbishment on the site as well as maintenance and repair of support infrastructure. However, the Trust still has a significant amount of backlog maintenance liability. In 2021, Main Theatres alone has backlog maintenance requirements of £7.6m.

The Trust is projected to spend c.£500k on failsafe and remedial works for Main Theatres under the RAAC Programme in 2021/22. The extent of works is based on a balanced judgement call reflecting the need to ensure the facility is safe for use, the level of disruption is minimised and there is minimal abortive spend given the intention to move into a new facility within two years' time.

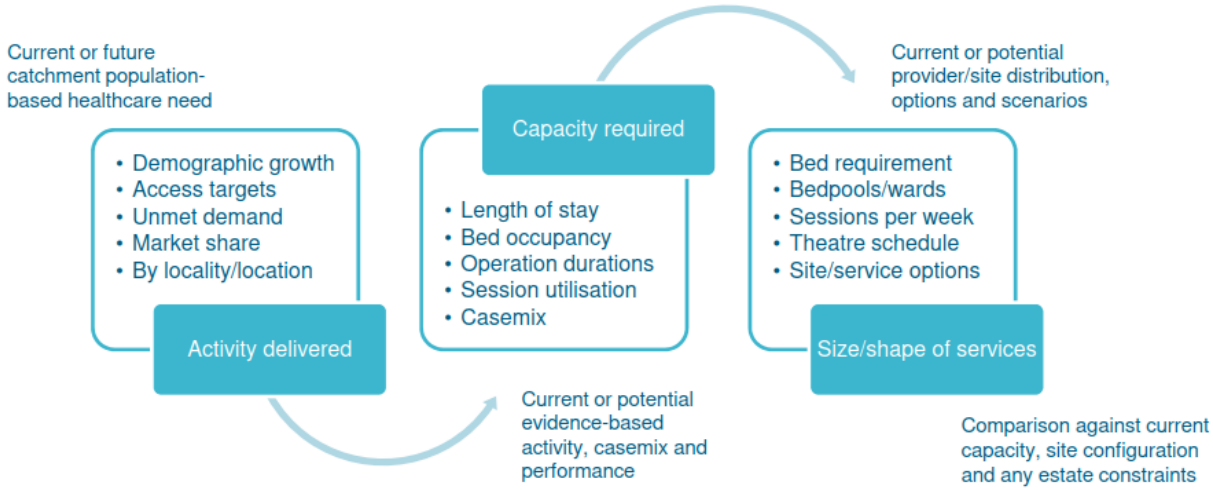
2.8 Activity modelling and capacity requirements to meet demand

The Trust appointed MS Health Insight to undertake a demand/capacity modelling framework to inform the ten-year planning horizon in support of this business case. The full report is attached at Appendix 2l: Theatres Activity & Capacity Analysis.

This analysis was included in the Trust's OBC and remains valid for the purposes of this FBC.

Figure 2-4 provides an overview of the approach taken to assess the required theatre numbers. This is an historical report produced at the time when beds formed a part of the project, although it is still relevant as it addresses theatre requirements.

Figure 2-4 - Approach to assessing future capacity.



The report notes that there are currently 7 theatres in the RAAC building and a further 5 in the Treatment Centre giving a total of 12 theatres on the Hinchingbrooke Hospital site. The current actual theatre capacity at Hinchingbrooke hospital is 100 half-day sessions per week. The analysis suggests that 11-12 theatres will be required to accommodate planned surgery at Hinchingbrooke Hospital by 2031/32, plus dedicated Emergency and Obstetrics theatre capacity. Increased evening/weekend operating would reduce the requirement to 8-10 theatres.

Theatres will operate on a 5 day per week basis over the next 5 years and consider moving towards 6 day working from 2027/28 onwards. MS Health Insight's independent review projected Hinchingbrooke Theatre requirements 2031/32 for planned surgery and trauma:

- 11 – 12 theatres assuming 40 hours per theatre a week or
- 10 theatres assuming 48 hours per theatre per week or
- 8 theatres assuming 60 hours per theatre per week.
- Plus, dedicated emergency and obstetrics theatres.

This analysis demonstrates that the current complement of theatres will still be required by 2032. The use of evening and weekend sessions will help to accommodate activity growth in the future if required but this does not form part of the base case assumptions.

Outlined below is a summary of the Trust's COVID-19 Recovery Strategy which is consistent with the above analysis.

2.9 Summary of Trust COVID-19 Recovery Strategy

The Trust has developed an Annual Plan and submitted a 6-month plan to NHSEI incorporating the Trust COVID-19 recovery response as part of the ICS.

The Trust priority is cancer, elective and diagnostics and will continue to work with system partners to manage non-elective demand. Effective partnership working across systems will be at the heart of the Trust's approach and the Trust's underlying vision in 2021/22 is:

- 'Recover safely' – 'Work with partners to fully recover services, provide good quality care and experience while addressing health inequalities.'
- 'Celebrate and support our staff' - 'Celebrate our staff and successes and ensure we provide support to our staff and develop them for the future'; and
- 'Sustainability' - 'Work sustainably to further develop our services, finances and protect the environment'.

The Trust and its ICS partners are in continuous dialogue with NHSEI on the evolving funding framework for the latter six months of 2021/22. This will impact on the phasing and delivery of its COVID-19 recovery plan.

2.10 Investment Objectives

The proposal continues to meet the investment objectives which remain unchanged from the OBC. The Trust have reviewed them, and they remain appropriate.

2.10.1 Investment Objective 1. Providing the right capacity for estimated population growth over the next 10 years.

The investment will ensure that the anticipated increase in population across the county between 2023 to 2032 be accommodated.

Although there are no additional theatres planned, the re-provision is in line with the Healthcare Planner's report for 7 theatres and will address the following risks of possible lengthy service downtime which will need to be mitigated:

- Reduce to a minimum the risk of any downtime through non-working plant. Currently, this will be two theatres lost per one non-working AHU.
- Reduce the risk of intrusive surveys of up to 6 months where ceilings will need to be removed to survey RAAC panels.
- Provide enough space for more efficient patient, staff and goods flows.
- Increase working hours with longer days and weekend working where necessary to accommodate growth in population on top of the risks mitigated through the provision of new theatres.

Investment Objective 1: SMART Criteria
Specific • Flexible design that will support the Trust to meet the planned surgical activity by 2031/32 which estimates that there is a need for up to 10 theatres based on evening and weekend operating. • The design and engineering solution will facilitate the longer working hours of weekends and evenings to support the management of capacity. • The design of the Main Theatres Building is 5107m^2 (Economic Case FB2 of Option 1 : Do Minimum Appendix 3b: CIM FBC capital forms - Forms 1-4 (incl Optimism Bias Schedules)).
Measurable Currently, the Main Theatres provision will provide like for like replacement. However, the new plant and better design for patient flows will allow the team to work confidently with their lists. Transformation programme will improve theatre utilisation and productivity. Operating hours will be extended in the future should demand increase requiring an increase in operational capacity.

Investment Objective 1: SMART Criteria
Achievable Yes – this business case sets out the rationale behind the new building supported by a signed off design.
Realistic Yes – to be delivered within the next two years.
Time bound. Increase in footprint begins from the time of approval of the FBC through to operational.

2.10.2 Investment Objective 2. Invest in infrastructure to ensure a safe environment for the population and staff.

Investment Objective 2: SMART Criteria
Specific • The investment will remove the existing safety critical backlog liabilities of £7.6m. • The design will meet current Health Technical Memorandums and Health Building Notes to provide a safe environment. • The design will meet current building regulations. • Safety of theatres no longer compromised through working in the RAAC panel area i.e., 'Best Buy' part of the Hospital. • Improvement in ability to control infection through design compliance with current guidance. • Full temperature control through brand new compliant plant and design providing a safer environment plus improving the patient and staff experience. • Removes the occurrence of the unplanned down time in theatres due to building infrastructure failure. • Increased floor size due to HBN compliance. Includes Points of Delivery (PODs) which will allow an increase in functionality for day case patients, mimicking the Treatment Centre model. • Due to new durable finishes, the area will be easier to clean.
Measurable • The design will meet current Health Technical Memorandums and Health Building Notes to provide a safe environment when the building becomes operational. • The design will meet current building regulations upon completion of the work. • Safety of theatres no longer compromised through working in the RAAC panel area i.e., 'Best Buy' part of the Hospital at the time the new building becomes operational. • Improvement in ability to control infection through design compliance with current guidance when the building becomes operational. • Full temperature control through brand new compliant plant and design providing a safer environment plus improving the patient and staff experience when the building becomes operational. • Removes the occurrence of unplanned down time in theatres due to building infrastructure failure when the new building becomes operational.
Achievable. • Yes – All dependant on approval of this FBC.
Realistic. • Yes – As part of the ICS priorities.
Time bound. • Delivered when the scheme is operational.

2.10.3 Investment objective 3. Maximise opportunities for estate development and asset optimisation.

Investment Objective 3: SMART Criteria
Specific • The project fits with the wider site reconfiguration as outlined in the DCP and wider Estates Strategy, upon completion of the project.

Investment Objective 3: SMART Criteria
• The project releases estate to facilitate the further replacement of other buildings in support of the removal of RAAC in the wider estate by 2035. • Delivers upper quartile Model Hospital performance in quality and safety of care for Theatres. • Minimises the disruption of the delivery of hospital services during the construction of the new theatres. • The new plant will reduce the use of energy and carbon.
Measurable • The project fits with the wider site reconfiguration as outlined in the DCP and wider Estates Strategy – upon completion of the project. • The project releases estate to facilitate the further replacement of other buildings in support of the removal of RAAC in the wider estate by 2035 – upon completion of the project. • Delivers upper quartile Model Hospital performance in quality and safety of care for Theatres within 6 months of completion of the project. • Minimises the disruption of the delivery of hospital services during the construction of the new theatres – From approval of the FBC through to operational. • New plant will reduce the use of energy and carbon from 2023 to 2024 yearly – this data will be available at full design stage. • The new facility will achieve BREEAM Excellent and Net Zero Carbon requirements.
Achievable • Yes through: - Options appraisal. - Delivery of the scheme in accordance with the timeline. - Through design of plant and materials to reduce carbon footprint.
Realistic • Yes, this document demonstrates: - The fit with the DCP. - The issues associated with the RAAC panels and the need to remove the safety issues by 2035. - Full and robust construction and decant plan. - Will support the Trust's commitment to Net Zero Carbon.
Time bound. • Yes, throughout this and future phased site development.

2.10.4 Investment objective 4. Develop assets which enable the delivery of clinical strategies.

Ensure infrastructure is in place to cope with the flexibility to deliver the Trust's clinical strategies, i.e., Main Theatres may have to extend operating hours and therefore the infrastructure needs to be in place to ensure maximum flexibility.

Investment Objective 4: SMART Criteria
Specific • The design has the capacity to support more surgical workload. • The proposed location of the new Main Theatres improves clinical adjacencies through close proximity to major services, such as, Critical Care, Maternity, Pharmacy and Support Services. • Segregates Paediatric pathways through patient pathway design. • Allows the time from referral to treat time to be maintained through reduction in planned and unplanned downtime of theatres. • The ability to attract, recruit and retain a high-quality workforce through the provision of a substantially improved working environment. • Separating elective (planned) and emergency patients through the use of dedicated theatres. • The design provides excellent training opportunities and improves the care for patients. • The new facility improves and aligns IT support services.
Measurable • The design has the capacity to support more surgical workload. The Trust will need to measure increase in patient demand from growth in local population and adjust working hours to suit.

Investment Objective 4: SMART Criteria
• Allows the time from referral to treat time to be maintained through reduction in planned and unplanned downtime of theatres – minimal downtime of theatres due to backlog maintenance eradicated. Any maintenance can now be planned. Measured at point of occupation. • The ability to attract, recruit and retain a high-quality workforce through the provision of vastly improved working environments – measured against the cost savings for agency staff over ten years after the new building becomes operational.
Achievable • Yes, a robust schedule of accommodation has been created with full engagement of the theatres staff and wider Trust staff.
Realistic • Yes, the working requirement has been tested with staff. Currently this is a lift and shift of existing services but flexibility in design allows for longer working hours and weekend working where required to adjust to higher demand if required.
Time bound. • Ten years from when the building becomes operational.

2.11 Summary of the Strategic Case

The Strategic Case sets out the national and local context for the project, the changes since the ICS/STP submission and the case for change, all of which remain consistent with the approved OBC.

The case for change remains urgent and compelling. There continues to be significant risk of structural failure of the Main Theatres building due to the RAAC panel issues described in section 2.3.5. Whilst the Trust is implementing its plan for failsafe and remedial works, this is only an interim measure. The Strategic Case explains why refurbishment, which had been assumed within the ICS/STP submission, is no longer a viable option due to:

- The NHSEI directive to eradicate RAAC panels by 2035 which has been built into the Trust's DCP.
- The time, risk and amount of work required to make the structure strong enough to house the new compliant plant.
- The lack of available space within the theatres to reconfigure to allow more efficient ways of working.

The approach to demand and capacity planning is described and this confirms the need for 7 theatres in a redeveloped Main Theatres facility.

3 Economic Case

3.1 Introduction

This section of the FBC has been developed in accordance with HM Treasury's Green Book 2020, NHS Improvement Capital Regime, Investment and Property Business Case Approval Guidance for NHS Trusts and Foundation Trusts, Fundamental Criteria and other NHSEI guidance. The Comprehensive Investment Appraisal (CIA) Model has been adopted to evaluate the options.

A detailed options appraisal was carried out and previously reported in the approved Outline Business Case (OBC). The Project Team has reviewed the assumptions and analysis underpinning the original assessment and updated the economic appraisal and the results confirm that the conclusions remain valid.

This section sets out:

- A summary of the process adopted and approved in the OBC to derive the shortlisted options.
- An updated economic appraisal of the shortlisted options which re-confirms the preferred option, and which will deliver a value for money solution compared to the short-listed options.

3.2 Constraints, Dependencies and Key Assumptions

3.2.1 Constraints

The main constraints associated with this scheme are as follows:

- The Trust will need to deliver the scheme whilst maintaining the quality and level of services.
- Patients, staff and visitors will need to access to the Hospital site during construction.
- Due to activity ceasing during the COVID-19 pandemic, the Trust now has additional waiting list pressure for all elective activity in respect of the ‘catch up’ now required, placing increasing importance on the need to maintain theatre capacity.
- The Trust needs to move Main Theatres to a new location on the Hinchingbrooke site due to major issues with RAAC panels.
- The Trust has limited capital available from Wave 4, and therefore any increases need to be managed within the Trust programme as part of the ICS CDEL envelope.

3.2.2 Dependencies

The main dependencies associated with this scheme are as follows:

- Approval of this FBC.
- Full planning permission required (at FBC).
- Continued ICS support, availability of ICS CDEL cover and approval of emergency loans to cover funding requirements above those included in Wave 4.
- Outputs from the Trust’s Development Control Plan need to be considered in respect of positioning of the new building.
- The issues which have arisen from the legacy ‘Best Buy’ Hospital design and resulting integrity of the RAAC panel construction.
- Ongoing availability of key operational and project staff.

3.2.3 Key assumptions

- The Trust has a duty to work to the plan issued by NHSEI for the eradication of RAAC panels by 2035.
- The project needs to be completed by June 2023 because this represents the earliest opportunity to eliminate TAC risk from Main Theatres.
- The project will need to fund any additional investment requirements which exceed the Wave 4 funding envelope through Trust Capital and within the ICS CDEL envelope. No further capital is available through DHSC.
- The project must fit in with the Trust’s overall plan for the site i.e., the DCP.

3.3 Critical Success Factors

Table 3-1 sets out the Critical Success Factors used to analyse the options.

Table 3-1 Critical Success Factors

Critical success factor	Details
Complies with specific Trust priorities	Optimise safe working practices by removing the threat that the RAAC panels pose to theatre service delivery and ongoing safety of patients and staff. Minimise risk of downtime of theatres through failing plant. Minimise risk of downtime of theatres through intrusive surveys for RAAC panel inspections.
Ensuring optimal use of land and buildings as per National policies i.e., Carter report	The project constitutes Phase 2 of a wider site rationalisation programme. Therefore, it should fit in with the Trust's DCP.
Delivering outstanding care and experience	Main Theatres areas should be designed to latest HTM/HBN guidance with all users and service providers in mind. Design should incorporate maximum efficiency in patient, staff and goods flows to allow optimal delivery of service whilst keeping in mind privacy and dignity and appropriate segregation. Service users and providers should be actively involved with the design to ensure it is robust.
Improving and developing our services and infrastructure	The Trust needs to be mindful of the need to maximise Modern Methods of Construction for efficiencies and design and build in conjunction with Net Zero Carbon for future proofing in respect of the NHS drive towards a zero carbon NHS in the future.

3.4 Investment Objectives

Table 3-2 sets out the Investment Objectives for the project.

Table 3-2 Investment Objectives aligned to strategic goals.

Investment (Spending) objective	How will this be measured? (SMART)
Provide sufficient capacity for estimated population growth over the next 10 years	The investment will ensure that the anticipated increase in population across the county between 2023 and 2033 can be accommodated. Although there are no additional theatres planned, the re-provision is in line with the Healthcare Planner's report for 7 theatres and the following risks of possible lengthy service downtime will need to be mitigated: Reduce to a minimum the risk of any downtime of non-working plant. Currently, this will be two theatres lost per one non-working AHU. Reduce the risk of intrusive surveys of up to 6 months where ceilings and ducting will need to be removed to survey RAAC panels. Provide enough space for more efficient patient, staff and goods flows. Increase working hours with longer days and weekend operating where necessary to accommodate growth in population on top of the risks mitigated through the improved flow as a result of fully HBN compliant space.
Invest in infrastructure to ensure a safe environment for the population and staff	Completely remove the risk that the current issues with the RAAC panels pose. Ensure 7 working theatres through mitigation of likely failure of outdated plant and replacement with new compliant plant.

Investment (Spending) objective	How will this be measured? (SMART)
Maximise opportunities for estate development and asset optimisation	Main Theatres should sit within the optimum area in respect of the Trust's wider plans for the Hospital site and the Development Control Plan (DCP) outlined in Appendix 2a: Development Control Plan.
Develop assets which enable the delivery of clinical strategies	Ensure infrastructure is in place to cope with the flexibility to deliver the Trust's clinical strategies, i.e., Main Theatres may have to extend operating time and therefore the infrastructure needs to be in place to ensure maximum flexibility.

3.5 Generated Options – Longlist Appraisal with Options Framework-Filter

The development of the long list of options and the derivation of the shortlist is set out in the approved OBC. A summary drawn from the OBC is illustrated below.

An options appraisal workshop was held on 24th February 2020 to develop, appraise and derive a short list of options. These were subsequently validated by the Trust's Project Team during the development of the FBC.

Long list options were created for each of the following option choices and are summarised and presented in Table 3-3 below.

- Service Scope.
- Service Solution.
- Service Delivery.
- Implementation.
- Funding.

Table 3-3 Service scope options

Business as Usual	Do minimum	Do maximum
Delivering business as usual through existing buildings ongoing maintenance costs	New Main Theatres block adjacent to PFI treatment centre first floor with shell and core administration space on the ground floor	New Main Theatres block adjacent to PFI treatment centre first floor with shell and core clinical space on the ground floor
Carried forward as a benchmark	Carried forward	Preferred way

Table 3-4 Service Solution

Business as Usual	Option 1	Option 2	Option 3
Continue to deliver services as they are currently	5 theatres in new building working as now	7 theatres i.e., like for like	9 theatres in new building
Carried forward as a benchmark	Discounted – does not meet IOs and CSFs	Preferred	Discounted – does not meet IOs and CSFs

Table 3-5 Delivery Long List Options

Business as Usual	Option 1	Option 2	Option 3	Option 4
Business as Usual – no inputs required from contractor	Do Minimum – general backlog maintenance and replacement of obsolete plant etc through existing frameworks and contractors	Design and build (traditional) the contractor may be appointed by competitive tender or as the result of a negotiated agreement	Procure 22	Any other framework i.e., LPP, SCAPE, PAGABO

Business as Usual	Option 1	Option 2	Option 3	Option 4
Carried forward as a benchmark	Discounted – does not meet IOs and CSFs	Discounted	Preferred way	Discounted

Table 3-6 Options for 'Implementation'

Business as Usual	Option 1	Option 2
Business as usual – no phasing /enabling required	Construction completed by within the financial year 2021/2022	Construction completed post April 2022
Carried forward as a benchmark	Preferred way	Discounted

Table 3-7 Funding Long List Options

Business as Usual	Do Minimum	Option 1	Option 2	Option3	Option 4
No funding	General backlog maintenance costs as part of the Trust's annual plan	Trust capital	STP Wave 4 capital funding	STP Wave 4 capital funding. Plus, ICS capital allocation funding top up	STP Wave 4 capital funding plus additional central funding
Carried forward as a benchmark	Discounted – does not meet IOs and CSFs	Discounted – not enough capital available	Discounted allocated £22.786m cost forecasts indicate there is insufficient funding to complete the project	Preferred	Discounted no further money available

3.6 Summary of Options Appraisal and Shortlisted Options

The outcome of the above process i.e., the preferred way forward is:

- A new Main Theatres building adjacent to the existing PFI building at first floor level with shell and core space below for non-clinical functionality.
- The building will supply 7 fully compliant theatres, except where there are agreed derogations.
- Procured using the P22 Framework with the involvement of the Trust's Preferred Supply Chain Partner.
- The Main Theatres scheme will be completed within the financial year 2023/2024.

3.7 Summary of Shortlisted Options

The three shortlisted options, which have been re-evaluated and re-affirmed as part of the FBC, are as follows.

Table 3-8 Shortlisted options

Option	Title	Commentary
0	Business As Usual (BAU)	This includes the investment required to address significant and high Backlog Maintenance (BM) risks within Main Theatres to bring the environmental and building standards up to Condition B[8]. Lifecycle would need to be undertaken to keep facilities at Condition B standards. As required by NHSEI, all RAAC hospital buildings need to be vacated by 2035, so this option reflects this requirement. The BAU option includes the costs associated with annual surveys and implementing a programme of risk based fail safe and remedial works for the period up to 2035 when all RAAC panels need to be removed from all NHS hospitals.
1	Do Minimum: New two-storey facility (5108m^2) to be constructed adjoining to the elective centre, with 7 theatres on the first floor and non-clinical shell space on the ground floor.	New two storey facility to be constructed adjoining to existing elective centre. Main Theatres will be located on the first floor with the ground floor comprising shell space for potential future non-clinical use. An existing modular building (Woodpecker Lodge), together with the current Staff Change facility, will be demolished to allow for the proposed new build construction. This accommodation will be re-provided through a modular Staff Change Facility located adjacent to the Mortuary and use of refurbished accommodation embedded within the main Hospital site. The costs of this reprovision are included within the enabling works. The Main Theatres would be on the first floor of the new building with the shell on the ground floor to be fitted out in the future as non-clinical space as part of a separate business case. Lifecycle expenditure will be undertaken to keep new facilities at Condition B standards throughout their economic life. The new facility would have two links, one from Main Theatres into the link corridor between the Treatment Centre and the existing Hospital and the other from Main Theatres into the existing Hospital. The latter would facilitate movement principally of Maternity patients. This investment associated with this option would ensure that Main Theatres vacates the RAAC building.
2	Do Maximum: New two-storey facility (5108m^2) to be constructed adjoining to the elective centre, with 7 theatres on the first floor and clinical shell space on the ground floor.	New two storey facility would need to be constructed adjoining to the existing Treatment Centre. Main Theatres would be located on the first floor with the ground floor comprising shell space for potential future clinical use. An existing modular building (Woodpecker Lodge), together with the current Staff Change facility, would need to be demolished to allow for the proposed new build construction. This accommodation will be re-provided through a modular Staff Change Facility located adjacent to the Mortuary and use of accommodation embedded within the main Hospital site. The costs of this reprovision are included within the enabling works. The Main Theatres would be on the first floor of the new building with the shell on the ground floor to be fitted out in the future as clinical space as part of a separate business case. Lifecycle expenditure would be undertaken to keep new facilities at Condition B standards throughout their economic life. The new facility would have two links, one from Main Theatres into the link corridor between the Treatment Centre and the existing Hospital and the other from Main Theatres into the existing Hospital. The latter would facilitate movement principally of Maternity patients. This investment associated with this option would ensure that Main Theatres vacates the RAAC building.

[8] Backlog maintenance cost (backlog) is the cost to bring estate assets that are below condition B in terms of their physical condition and/or compliance with mandatory fire safety requirements and statutory safety legislation up to condition B. Condition B is the minimum acceptable condition that must be achieved in order to avoid backlog costs.

3.8 Post OBC: Supplementary Analysis of Clinical and Non-clinical Options for use of the Ground Floor shell and First Floor in the New Theatres Building".

At OBC stage, careful consideration was given to the potential use of the ground floor space for both clinical and non-clinical areas. The main patient flows within the current hospital are at first floor. The Trust's Development Control Plan continues this configuration. In addition, given the deep plan nature of the ground floor space, even with the inclusion of light wells, this is not an ideal location for clinical services as natural light remains compromised and engineering would be relatively high cost.

However, the Trust is continuing its work on the plans for redevelopment of the Hinchingbrooke site and, as alternative site redevelopment option emerge as a result of more detailed assessment, the Trust will undertake further assessment of whether clinical services can be incorporated on the ground floor whilst addressing the constraints of deep plan space without light wells and in the context of achieving a value for money solution.

3.9 Summary of OBC Approved Economic Appraisal

The table below summarises the results of the economic appraisal of the shortlisted options in the approved OBC drawn from the completed Comprehensive Investment Appraisal (CIA) model.

Table 3-9 Summary of OBC Economic Appraisal – CIA

	Option 1: Do Minimum: 7 Theatres / Shell Space (Potential Non-Clinical Use) £'000	Option 2: Do Maximum: 7 Theatres / Shell Space (Potential Clinical Use) £'000
Incremental Costs		
Risk	-1,584.3	-1,614.3
Total Costs	-1,584.3	-1,614.3
Incremental Benefits		
Cost Reduction – Capital (Including Optimism Bias)	6,260.1	5,790.7
Cost Reduction – Revenue	307.0	307.0
Non-Cash Releasing Benefits	11,958.5	11,958.5
Total Benefits	18,525.6	18,056.2
Risk Adjusted Net Present Social Value (NPSV)	16,941.3	16,441.9
Benefits Cost Ratio	11.69	11.19
Ranking	1	2

Source Comprehensive Investment Appraisal_Model_v3_jan_Hinchingbrooke.xls

The results showed at OBC that Option 1: Do Minimum had both the highest BCR and NPSV, and indicated it offered the best public/social value option. Option 1 : Do Minimum was consequently chosen as the Preferred Option.

3.10 Updated Economic Appraisal - Approach & Assumptions

The Trust in concert with its technical and financial advisers have updated the economic appraisal based on the following approach and assumptions. The information outlined below has been utilised in the updated CIA analysis for the FBC (Reference Appendix 3a: Economic Analysis FBC CiA).

3.10.1 Approach & Assumptions

The table below outlines the Trust's approach and assumptions.

Table 3-10 Approach & Assumptions

Heading	Commentary
Base date	All costs have been based at 2021/22 prices in line with the assumed start on site date for construction. The appraisal has been conducted over a 61-year period, reflecting a 72-week capital investment period plus a 60-year whole life cost assessment. The OBC assumed start on-site would be Qtr. 3 2021/22. At this stage, the scheme is planned to start on site in Qtr.4 2021/22.
BAU Capital Cost	The BAU option has been updated to reflect further revised backlog maintenance data and cost impacts due to market conditions.
Option 1 Do Minimum Capital Cost	The Do Minimum has been updated to reflect the GMP agreed with Graham Construction. Further mitigations against optimism bias contributory factors have been achieved since OBC, resulting in 1.44% still remaining and being applied to the appraisal at FBC.
Option 2 Do Maximum Capital Cost	The Do Maximum has been updated to reflect the approach set out below in Table 3-12. Although further mitigations against optimism bias contributory factors have been achieved since OBC, these are not as significant as in Option 1 due to the slight difference in nature of the options resulting in 3.24% being applied to the appraisal at FBC.
Lifecycle Costs	These have been reviewed and updated since OBC stage. Reference Appendix 3c: NWA – Main Theatres Life cycle.
Equipment Costs	Equipment costs have been updated for changes in inflation and to reflect the Trust's costed equipment schedule.
Opportunity Costs	There were no opportunity costs affecting this appraisal assumed at OBC stage. This assumption remains valid at FBC.
Land Costs	No land was assumed to be required to be purchased for this project at OBC stage. This assumption remains valid at FBC.
Land Sale Receipts	There were no land sale receipts affecting this appraisal at OBC stage. This assumption remains valid at FBC.
Other Capital Costs	At OBC stage avoided costs impacting Option 0 Business As Usual were included such as, RAAC panel surveys, RAAC panel works and critical roof repair costs. These assumptions are unchanged at FBC.
Clinical, non-clinical and support costs	The costs incorporated in the OBC remain unchanged. No change has taken place in the staffing or scope of the options since OBC approval.
Building running costs	Modest cash releasing savings of £12k were identified in the OBC for Option 1 and 2 resulting from an overall GIFA reduction in Trust premises. These assumptions have been revisited in the FBC and now reflect the updated (increased) GIFA position following the demolition of the Woodpecker Lodge and Staff Change facility and the reprovision of office accommodation and staff change via modular facilities for Option 1 Do Minimum and Option 2 Do Maximum.
PFI Variation Cost	One-off fees are included in the capital cost for Option 1 Do Minimum & 2 Do Maximum. In addition, annual revenue costs are included until the end of the PFI concession period (2035). These costs relate to the PFI link corridor between the theatres and the hospital and were not included at OBC stage as they could not be quantified given the stage of design development and were assumed to be covered by the contingency.
Transitional Costs	There were no transitional costs affecting this appraisal at OBC stage. This assumption remains valid at FBC.

Heading	Commentary
Externalities	There were no externalities affecting this appraisal at OBC stage. This assumption remains valid at FBC.
Net Contributions	No net contributions were assumed at OBC stage. This assumption has been revisited and updated to reflect the loss of 51 staff car parking spaces under the Option 1 Do Minimum and Option 2 Do Maximum options.
Cash Releasing Benefits	No additional cash releasing benefits have been identified following the review of the short-listed options. This is consistent with the approved OBC.
Societal Benefits	No societal benefits have been identified following review of the short-listed options. This is consistent with the approved OBC.
Non-Cash Releasing Benefits	Monetised Non-Cash Releasing benefits were derived for Option 1 Do Minimum and Option 2 Do Maximum and included in the CIA (reference Table 3-9). The Trust and its financial advisers have re-evaluated the opportunity for additional NCRB including revisions to the base date of the figures for the purposes of the economic appraisal. The Trust has concluded that no further material changes are warranted, and this was agreed at a meeting with NHSEI and DHSC prior to submission of this FBC.
Unmonetisable benefits	The Trust and its Financial Advisers have reviewed the unmonetisable benefits for the FBC and have included additional benefits, relating to no further extension to patient waiting times for admission for surgery (reference Table 3-22 - Unmonetisable benefits).
Monetisation of risk	At OBC the CIA model was used to quantify risks for Option 1 Do Minimum and Option 2 Do Maximum but contingency sums in OB cost forms were modelled as part of capital expenditure for BAU. For the FBC, the risk for the BAU option has been quantified within the CIA model and subsequently recognised as the contingency figure included as part of capital FB forms. For Option 1 Do Minimum and Option 2 Do Maximum risk has been quantified by the Trust's Cost Consultant and included in Appendix 3d: Project Construction Quantified Risk – Planning Contingency. The approach to risk was agreed at a meeting with NHSEI prior to submission of the FBC.
Depreciation, capital charges & VAT	These costs have been excluded from the economic appraisal.
Inflation	All costs are either based at, or inflated to, a cost base date of 2021/22 and not beyond this.

3.11 FBC Update – Capital Costs

The following sections of the business case present the FBC position for the constituent elements of the CIA Model and describe any relevant changes since OBC stage.

3.11.1 Capital Costs

The table below outlines the updated capital costs for the shortlisted options taken from the FB forms. Figures excluding VAT have been modelled in the CIA model. FB forms are set out in Appendix 3b: CIM FBC capital forms - Forms 1-4.

Table 3-11 Capital Costs (taken from summary FB1 form)

	Line Ref Table 3-12	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Departmental Costs	1	-	15,076.0	15,076.0
On Costs	2	11,964.1	5,653.4	6,040.9
Works Cost Total	**3**	**11,964.1**	**20,729.4**	**21,116.9**
Provisional location adjustment (if applicable)	4	-358.9	-621.9	-633.5
Sub Total	**5**	**11,605.2**	**20,107.5**	**20,483.4**
Fees	6	1,450.7	2,355.7	2,505.7
Non-Works Costs	7	68.9	1,319.9	1,319.9
Equipment Costs	8	-	161.4	161.4
Planning Contingency*	9	-	1,200.0	1,200.0
Sub Total (FB Form Line 10 Excluding VAT)	**10**	**13,124.8**	**25,144.5**	**25,670.4**
Uplift to base date (exc VAT)		**13,876.2**	**25,144.5**	**25,670.4**
NPC of Capital Costs		**13,749.5**	**24,915.0**	**25,436.0**

Source: FB forms Appendix 3b: CIM FBC capital forms - Forms 1-4

*Note that the planning contingency for Option 0 BAU has been sourced by way quantified risk calculations in the CIA model.

** Optimism Bias is modelled separately within the CIA model.

It should be noted that the CIA model uses Line 10 from the FB form (excluding VAT) and inflates the costs to the base date used within the CIA model. Full FB forms include VAT, which is excluded from public sector economic appraisals and hence the FB form total and modelled figured within the CIA will not directly correlate. The data sheet that feeds the CIA model has been provided to help explain the modelling.

3.11.2 Capital Costing Approach for FBC

The Trust's cost consultant has developed capital costs for this FBC, having also prepared costs at OBC. The following sections describe the approach taken in progressing costs since OBC stage for each of the shortlisted options.

BAU Capital Costs

The backlog maintenance (BM) liability is treated as an "avoided cost" within the CIA appraisal and the modelling of the BM liability is captured under the capital cost section of the CIA model. Any BM liability is included as part of on-costs at line 2 of the cost consultant's FB form and this sum is then uplifted for "add-ons" to create an "out-turn forecast cost".

The basis of the BAU costings at OBC was the level of BM deemed to be associated with Hinchingbrooke theatres. This identified circa £6,000k (net cost) backlog within Main Theatres, against which a further allowance of circa £1,300k was added for the RAAC panel issues, bringing the total backlog to £7,300k. This 'net cost' excluded on-costs, preliminaries, fees and contingency, which was then included to create a 'gross project cost' included on OB cost form.

For the FBC, the basis of costings for BAU has been updated to reflect the Trust's BM position (as referred to above) and to take account of latest six-facet survey data for condition and statutory compliance (January 2021), bringing the total backlog to £7.6m. In addition, an adjustment has been made to reflect the current market conditions with prices greater than previously forecast due to global material shortages and supply chain price increases. This adjustment has been made following an analysis of the GMP submitted for the preferred option and supporting data.

The traditional approach to producing the FB form has then been used to turn this from a 'net cost' to a 'gross project cost'.

Option 1 Do Minimum and Option 2 Do Maximum

At OBC the only difference between the capital costing approach was at Line 2 of the OB forms (on costs) where an allowance of £368k was included to cover the incorporation of courtyards/light wells to allow natural light flow to the clinical use shell and core space in the Do Maximum option. Every other change was a result of percentage uplifts being applied against costs that then sequentially increase throughout the OB form.

At FBC, typically, all other non-preferred shortlisted options are revisited and costed in the same way as at OBC i.e., they are simply refreshed and updated. However, in this case, because the Do Maximum (option 2) is almost identical to the Do Minimum option (Preferred Option) the Trust's cost consultant has used the market data from the GMP to update this option.

The table below describes the approach to costing each of the options.

Table 3-12: Summary of Capital Costing Approach

		Option 1 Do Minimum	Option 2 Do Maximum
Line 1	Departmental Costs	Based on Healthcare Premises Cost Guide (HPCG) departmental cost uplifted to the current PUBSEC reporting level	As per Do Minimum (option 1);
Line 2	On Costs	Based on the agreed GMP submitted by Graham Construction (P22 PSCP) including inflation	As per Do Minimum (option 1) plus an additional allowance to incorporate the lightwells as per the OBC
Line 3	**Works Cost Total**	**Sub-total of lines 1 and 2**	**Sub-total of lines 1 and 2**
Line 4	Provisional location adjustment (if applicable)	Included at Line 1	Included at Line 1
Line 5	**Sub Total**	**Sub-total of lines 3 and 4 and reflects the agreed GMP submitted by Graham Construction (P22 PSCP) excluding design fees which are included in line 6 below**	**Sub-total of lines 3 and 4**
Line 6	Fees	Based on actual fees incurred by the Trust rather than a % allowance used at OBC; fees that are incurred by the PSCP that form part of the GMP referred to above are also included here	As per Do Minimum (option 1) but with an additional allowance for re-design fees required to incorporate the lightwells
Line 7	Non-Works Costs	Based upon the separately tendered works to demolish the existing Woodpecker and Staff Change accommodation and re-provide this on the site in new modular accommodation, plus an estimate for the service diversion works to be undertaken by the Trust – firm quotes for this work cannot be obtained until after the demolition works have been undertaken	As per Do Minimum (option 1);
Line 8	Equipment Costs	Are as per the OBC position with the majority of equipment being transferred and a minor investment in new IT hardware	As per Do Minimum (option 1);
Line 9	Planning Contingency	This is a factor of the Risk Quantification. At OBC the risks included those being taken by the PSCP + those retained by the Public Sector. At FBC the PSCP risk is included in the GMP and so the figure used will represent Public Sector retained risks only and has been backed up with detailed quantified analysis.	As per Do Minimum (option 1) on the basis that the level of risk retained by the client would be the same
Line 10	**Total**	**Sub-total of lines 5 through to 9**	**Sub-total of lines 5 through to 9**
Line 11	Optimism Bias	Has been revisited based on mitigation of contributory factors	Revisited based on mitigation of contributory factors. This is higher

		Option 1 Do Minimum	Option 2 Do Maximum
			than Option 1 due to the potential additional risks associated with planning, stakeholder agreement to the revised layouts, future proofing requirements to the ground floor to accommodate clinical space and potential programme impacts from the re-design works
Line 12	**Total**	**Sub-total of lines 10 and 11**	**Sub-total of lines 10 and 11**
Line 13	Inflation	Is included in GMP, fee quotes and tenders for the enabling and decant works, with the risk of future adverse movements inflation included subject to the programme milestones being achieved (i.e., FBC approval Q3 2021/22);	As per Do Minimum (option 1);
Line 14	**Grand Total**		

3.11.3 Rationale for movement in Capital Costs of 3 Options since OBC

The movement in capital costs for each of the three shortlisted options is also described below.

BAU Cost movement (since OBC)

The movement in BAU capital costs (line 2 of FB forms: "on-costs") can be summarised as follow:

- Uplift to backlog maintenance in January 2021 = £369k.
- Market conditions price uplift (based on GMP assessment) = £758k.
- Uplift from PUBSEC 250 to PUBSEC 262 = £548k.

This represents a total movement in line 2 of £1,675k from £10,289k at OBC to £11,964k at FBC.

Further changes result from those cost lines in FB forms that are linked to a works cost total i.e., location cost adjustments, fees, contingency, optimism bias and inflation adjustments.

Option 1 Do Minimum FBC Cost movement (including GMP) since OBC

Table 3-13 sets out the capital costs associated with the Preferred Option and movement between the approved OBC and FBC.

Table 3-13 Capital Costs – Preferred Option : Option 1: Do Minimum

	Approved OBC £ 000	FBC £000	Net Change £000
Departmental Costs	10,499.1	15,076.0	4,576.9
On Costs	5,821.0	5,653.4	(167.6)
Works Cost Total	**16,320.1**	**20,729.4**	**4,409.3**
Provisional location adjustment (if applicable)	-489.6	-621.9	(132.3)
Sub Total	**15,830.5**	**20,107.5**	**4,277.0**
Fees	1,820.5	2,355.7	535.2
Non-Works Costs	51.5	1,319.9	1,268.4
Equipment Costs	150.0	161.4	11.4
Planning Contingency (10%)	1,583.0		(383.0)
Planning Contingency (5.86%)		1,200.0	
Total	**19,435.5**	**25,144.5**	**5,709.0**
Optimism Bias (6.8%)	1,321.6		(959.5)
Optimism Bias (1.44%)		362.1	
Sub Total (Line 12 of OB/FB1)	**20,757.1**	**25,506.6**	**4,749.5**
Inflation adjustment (to mid-point of construction)	2,411.5	-	(2,411.5)
Total	**23,168.6**	**25,506.6**	**2,338.0**
VAT	4,269.6	4,630.2	360.6
Total (including VAT)	**27,438.2**	**30,136.8**	**2,698.6**
Percentage Increase			**9.8%**

Source: OB/FB forms

The above indicates a total movement in capital costs of £2,338k (before VAT) or £2,698k inclusive of VAT. In the commentary below we set out the line-by-line rationale for any changes, prior to VAT.

Line 1: Departmental Costs. Total movement = £4,577k, with this being due to three contributory factors:

- Cost of 'shell space' now shown in line 1 instead of line 2 (On-Costs) = £3,563k.
- Increase in GIFA (theatres and ground floor) of 133m2 = £324k.
- An increase in PUBSEC indices[9] (from 250 to 262) = £690k.

Line 2: On Costs: Total movement = £167k [reduction], with this being due to four contributory factors

- Cost of 'shell space' now shown in line 1 instead of line 2 (On-Costs) = (£3,563k)
- Increase in GIFA (second floor) of 29m2 = £55k
- An increase in PUBSEC indices (from 250 to 262) = £259k
- Adjustment to on costs and site abnormals as per Graham GMP (including allocation of construction inflation @ £400k and market price inflation @ £1.3m) = £3,082k.

Line 3: Work Cost: This is a total of lines 1 and 2.

Line 4: Location adjustment: Total movement £132k [reduction].

- This is a mathematical movement only: with 3% applied to a higher Works Cost results in a higher location adjustment.

Line 5: This is a sub-Total of lines 3 and 4.

Line 6 Fees. Total movement = £535k. FBC fees have been updated since OBC, with the movement since OBC being partly due to reallocation of BREEAM allowance and additional surveys to de-risk the scheme. There is now an agreed fee split between:

- Graham construction: £1,502k and
- Those procured directly by the Trust: £853k.

Line 7: Non-Works costs. Total movement = £1,268k with this being due to four contributory factors

- The inclusion of enabling works, including service diversions = £360k [not included in OBC].
- Demolitions = £75k [not included in OBC].
- Modular block decant = £860k [not included in OBC].
- Revised planning fee allowance = £27k [reduction].

Line 8: Equipment Costs. Total movement = £10k

- Uplift from PUBSEC 250 to PUBSEC 269 (FBC approval)

Line 9: Planning Contingency. Total movement = £383k [reduction]

- OBC allowance of 10% now replaced with priced risk register.

Line 11: Optimism Bias. Total movement = £959k [reduction]

- Risk mitigations implemented during period of OBC submission and FBC development (6.8% at OBC reduced to 1.44% at FBC)

Line 12: Inflation. Total movement = £2,411k [reduction]

- Inflation now included within individual cost lines (where applicable).

Option 2: Do Maximum FBC Cost movement (since OBC)

As stated above, the only difference between Option 1 Do Minimum and Option 2 Do Maximum are the works required in the provision of lightwells to the shell space and any fees relating to the additional design to incorporate this. This cost increase then factors its way down through capital cost workings and impacts other cost lines, such as 'location adjustment'. Therefore, cost changes noted above, for Do Minimum, are also applicable for Option 2 Do Maximum.

Optimism bias is also higher in this option due to contributory factors relating to planning, stakeholder engagement and potential programme implications from re-design.

Opportunity Costs

At OBC, it was considered that opportunity costs of land and buildings are not relevant for inclusion in the decision-making process. The current theatres are located within the main hospital building and therefore could not realistically be separated in order to provide benefit by way of potential sale (either land or buildings). Likewise, the

[9] The OBC was based upon a PUBSEC reporting level of 250 at line 10, whereas as the FBC is based upon tender prices which includes future inflation based upon the current programme milestones (i.e., FBC approval Q4 2021).

plot of land that is earmarked for the development of the two alternative options sits between two current hospital buildings and in the middle of the Hinchingbrooke site and so carries no intrinsic value.

These assumptions remain valid for the FBC.

Residual Value

As referred to above, no opportunity cost of land was included within this appraisal at OBC due to the 'locked' location of the current facilities and so no residual value was included for land.

In the case of buildings, the appraisal has been run over a 60-year period, by the end of which the facilities in question would have reached the end of their useful economic life and therefore, it is assumed, will have no residual value remaining.

These assumptions remain valid for the FBC.

Capital Receipts

There were no capital receipts anticipated under any of the shortlisted options at OBC.

This assumption remains valid for the FBC.

Land Costs

At OBC, there were no transactions anticipated resulting in consideration being paid by the public sector for land under any of the shortlisted options.

This assumption remains valid for the FBC.

Lifecycle Costs

Lifecycle costs have been reviewed and updated by the Trust's cost consultant since OBC stage. Option 1 Do Minimum and Option 2 Do Maximum both have exactly the same theatre provision for different future use by way of shell and core space on the ground floor. There is no intention to fit out shell and core (for either administrative or clinical use) at this time and any future business case would consider the ongoing lifecycle costs for this rather than tin his FBC. A full analysis of lifecycle costs can be found at Appendix 3c: NWA – Main Theatres Life cycle.

The NPC of lifecycle costs included in the CIA for each option are summarised in the table below.

Table 3-14 Lifecycle Costs - NPC

	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
NPC of Lifecycle Costs	1,579.0	2,719.5	2,719.5

Equipment

All equipment has been included in the FB forms. Existing clinical equipment will transfer across from the current theatres to the new theatres – when complete. Current replacement programmes will continue and, at the time of transfer, if it is felt that any equipment is not suitable for transfer, then the Trust will replace at that time - this would be the same in all options and so does not affect the appraisal.

An IT equipment list has been developed for both Option 1 Do Minimum and Option 2 Do Maximum and included in FB forms as set out above.

Therefore, no further equipment allowances are included at FBC.

Other Capital Costs (Avoided Costs)

Avoided costs impact Option 0 Business As Usual and include Backlog Maintenance costs, RAAC panel surveys, RAAC panel works and roof critical repair costs.

Investment in Backlog Maintenance in future years has been estimated and included by the Trust's Cost Consultant into the FB forms, as referred to above. The Backlog Maintenance works do not include RAAC panel works and so the Trust is not double counting any avoided costs within the appraisal.

The estimated cost of RAAC panel surveys, and any resultant RAAC panel works identified by the surveys, is £150k and £750k per annum respectively (at 2019/20 prices). The unknown nature of RAAC panel works means that figures used within this appraisal have to be based on absolute estimates. However, it is thought that this could cost up to £1,000k. The Trust has, however, taken a prudent approach to smoothing the estimated cost over the appraisal period. The appraisal uses the assumption that RAAC panel issues for theatres would be "made safe" by these potential works – although only the outcome of the surveys will fully inform this. These costs are therefore profiled until appraisal year 13 i.e., the point at which the Trust would either vacate the building or completely refurbish the area. This is deemed to be a prudent approach.

The roof critical repair cost of £350k (at 2019/20 prices) - to make this safe rather than completely replacing - is also excluded from Backlog Maintenance estimates and is assumed to occur every 10 years commencing in Year 0. All of these costs are uplifted by 2.5% to a base date of 2021 prices. These assumptions remain valid at FBC.

The Net Present Cost of these works (in BAU only) is £11,566.5k.

Avoided costs could be categorised as being a cash-releasing or non-cash releasing benefits but instead have been included as economic costs within the CIA model.

Optimism Bias

The Green Book requires that explicit adjustments be made to appraisals to allow for 'optimism bias' in economic appraisals. Optimism bias mitigation has been re-assessed by the Trust's professional advisers and is deemed to be at a suitable level for each of the three appraised options.

Option 1 Do Minimum has the highest level of mitigation as this is, and was, seen as the Trust's preferred way forward and hence has attracted a higher degree of professional input in progressing the option, therefore mitigating those contributory factors that determine optimism bias. The review of contributory factors for the FBC has resulted in further mitigation, thereby reducing the level of unmitigated optimism bias to 1.44%.

Option 2 Do Maximum has also been reviewed since OBC stage and further factors have been mitigated reducing the level of unmitigated optimism bias to 3.24%. This is higher than Option 1 due to the potential additional risks associated with planning, stakeholder agreement to the revised layouts, future proofing requirements to the ground floor to accommodate clinical space and potential programme impacts from the re-design works.

The Trust Project Team has also assessed the contributory factors for the BAU Option and determined that no further mitigation has been achieved since OBC and therefore optimism bias for this option remains at 13.1% for the FBC.

Worksheets detailing the calculations of the 'upper bound' and mitigation against 'contributory factures' can be found within the CIA model included at Appendix 3a: Economic Analysis FBC CiA and additional worksheets in the FB forms (reference Appendix 3b: CIM FBC capital forms - Forms 1-4 (incl Optimism Bias Schedules). The CIA model calculates optimism bias separately and is therefore not shown separately at line 34 within the 'cost option' worksheets. The table below shows the 'optimism bias' for all relevant options. The figures included in the table below are those represented in the CIA model and there may be rounding differences if the percentages are used to calculate the applicable optimism bias figures.

Table 3-15 Optimism Bias

	Option 0: Business As Usual	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use)	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use)
Whole Life Capital Costs (£'000)	33,314.7	32,081.7	32,607.5
Upper Bound Calculation	32.0%	18.0%	18.0%
Unmitigated at FBC	41.0%	8.0%	18.0%
Optimism Bias at FBC	13.1%	1.4%	3.2%
Total Optimism Bias (£'000)*	**4,370.9**	**462.0**	**1,056.5**
NPC of Optimism Bias (£'000)	3,528.6	398.0	912.2
Rank	3	1	2

Total Optimism bias figure is exclusive of VAT (for CIA model purposes) and is calculated on the sum of initial capital expenditure, lifecycle and equipment costs. (*) Rounding apply

Summary of Capital Expenditure

The total net present costs of all the capital expenditure items (i.e., construction/building costs, equipment, lifecycle costs, other capital costs, land sale receipts and residual value) are shown in the table below.

Table 3-16 NPC of Capital Costs

	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Construction costs	13,749.5	24,915.0	25,436.0
Lifecycle costs	1,579.0	2,719.5	2,719.5
Other capital costs	11,566.5	-	-
Capital Receipts and Residual Value	-	-	-
Total – Excluding Optimism Bias	**26,895.0**	**27,634.5**	**28,155.5**
Rank	1	2	3
Total – Including Optimism Bias	**30,423.6**	**28,032.4**	**29,067.8**
Rank	3	1	2

3.12 Recurring Revenue Costs

3.12.1 FBC: Clinical, non-clinical and support costs

This FBC makes the case for investment in seven new theatres to replace an existing block of seven theatres. The costs associated with running Main Theatres fall within the Trust's Surgical Division, for internal financial management and reporting purposes, and therefore this is used as the basis for this assessment. No change has taken place in the staffing or scope of the options since OBC approval and so the costs incorporated in the OBC remain unchanged. The costs are at base date of 2021/22.

The clinical, non-clinical costs associated with the options are set out in the table below. The following information is represented and drawn from the CIA model (Reference Appendix 3a: Economic Analysis FBC CiA).

Table 3-17 Clinical, Non-Clinical & Support Costs - NPC

	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Pay Costs	26,584.8	26,584.8	26,584.8
Non-Pay Costs	6,336.6	6,336,550	6,336.6
Uplift to 2021/22 base date	**34,588.0**	**34,588.0**	**34,588.0**
NPC of Clinical, Non-Clinical and Support Costs	**912,266.6**	**912,266.6**	**912,266.6**

3.12.2 FBC: Building Running Costs

For this appraisal, the approach to assessing any impact on the building running costs for Option 1 Do Minimum and Option 2 Do Maximum has been to assess the incremental shift away from Business as Usual, at a whole hospital level. 2019/20 ERIC10 data for Hinchingbrooke Hospital was utilised. The building running costs have been costed at a £/m^2 based on the total Hinchingbrooke Hospital Gross Internal Floor Area (GIFA). Variable costs, i.e., those expected to vary in line with the size of the new theatres, have been identified and flexed based on a £/m^2 to calculate the incremental cost impact for both Do Minimum and Do Maximum options.

The change in GIFA takes into account the demolition of Woodpecker Lodge and Staff Change areas as against the new GIFA resulting from new Modular facilities and the New Build itself. An adjustment is also considered for mothballed space (vacant theatres and shell space) and cheaper energy costs resulting from more energy efficient new space. Assumptions used within these calculations are as follows:

[10] Estates Returns Information Collection data on Trust buildings, collated by DHSC.

- Mothballed/de-commissioned space: cost per m^2 = 10% of current costs.
- Energy efficiency (as a result of modern energy efficient facilities) = saving of 10% per m^2 against current costs.

The cost methodology/ assumptions have not changed since OBC. However, the net change in useable GIFA for the FBC is +207m^2 along with an increase in mothballed space of +113m^2. Note that the FB form does not include GIFA for the new modular buildings (for staff change and stores) and the GIFA for Woodpecker Lodge was refined at FBC with more accurate data, therefore the change in useable GIFA does not directly match the uplifted GIFA shown on the FB form, explained as follows:

CiA Model	
+20m^2	Increase in Theatres GIFA
(234m^2)	Difference in Woodpecker Lodge from OBC to FBC
+421m^2	New Modular buildings (area not included in FB forms)
207m^2	**Total**
FB Form	
+20m^2	Increase in Theatres GIFA
+113m^2	New Modular buildings (area not included in FB forms)
+133m^2	**Total**

Table 3-18 shows building running costs for each of the options.

Table 3-18 Building Running Costs

	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Cleaning	1,710.2	1,716.3	1,716.3
Catering	955.0	955.0	955.0
Portering	992.8	992.8	992.8
Laundry and Linen	585.2	585.2	585.2
Waste (Clinical and General)	286.2	286.2	286.2
Utilities/Energy	1,488.5	1,485.0	1,485.0
Hard FM and Maintenance	1,999.6	2,006.8	2,006.8
Grounds and Gardens	1,375.1	1,375.1	1,375.1
Other	307.4	307.4	307.3
Total Building Running Costs (Hinchingbrooke Hospital)	**9,700.0**	**9,709.8**	**9,709.8**
Uplift to 2021/22 base date	10,191.1	10,201.4	10,201.4
NPC of Building Running Costs	**268,793.4**	**269,050.3**	**269,050.3**
GIFA (m2) – Existing Theatres	2, 297		
GIFA (m2) – Woodpecker Lodge & Staff Change	973		
GIFA (m2) – New Modular Stores adjacent to Elm Ward		75	75
GIFA (m2) – New Modular Staff Change & Offices		346	346
GIFA (m2) – New Theatres		2,542	2,542
GIFA (m2) – New Shell Space		2,565	2,565
Area change of "In Use" Space (m2)		(307)	(307)
Mothballed Space (m2)		4,862	4,862

Source: Appendix 3a: Economic Analysis FBC CiA

3.12.3 PFI Variation Costs

In both Option 1 Do Minimum and Option 2 Do Maximum, there will be connection to the PFI link corridor between the theatres and the Main Hospital, which will result in an increase in the Annual Service Payment (ASP) until the

end of the PFI concession in 2035. The ASP adjustment is £2k per annum (excluding VAT) and is applicable to Option 1 Do Minimum and Option 2 Do Maximum - the NPC of these costs is £20.9k. These costs were not modelled at OBC stage.

3.12.4 NPC of Revenue Costs

The table below summarises the recurring revenue costs for each of the options, at a 2021/22 base date, pay and price levels.

Table 3-19 : NPC of Revenue Costs

	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
NPC of Clinical, Non-Clinical & Support Costs	912,266.6	912,266.6	912,266.6
NPC of Building Running Costs	268,793.4	269,050.3	269,050.3
NPC of PFI Variation Costs	-	20.9	20.9
Total	**1,181,059.9**	**1,181,337.8**	**1,181,337.8**
Rank	1	2	2

Transitional Costs

Any decant costs will be covered by existing resources and therefore have been excluded from this appraisal. These are expected to be very minor. There were no revenue transitional costs modelled under any shortlisted option at OBC.

These assumptions remain valid at FBC.

Externality Costs

There were no externality costs assumed under any of the shortlisted options at OBC. This assumption remains valid at FBC.

Net Contributions

As a result of the project the Trust will lose income from 51 staff car park spaces. This loss is estimated to be in the region of £29k per annum based on £2.20 per day and a turnover of 1 space per day for 5 days a week. The income is modelled each year in Option 0 BAU but removed in Option 1 Do Minimum and Option 2 Do Maximum to recognise this loss of income. The NPC of lost income is £769.4k.

This loss of income was not modelled at OBC stage.

3.13 FBC: Risk Adjustment and Contingencies

At OBC the CIA model was used to quantify risks for Option 1 Do Minimum and Option 2 Do Maximum but contingency sums in OB cost forms were modelled as part of capital expenditure for BAU.

At FBC, the Trust has now been able to separately assess risk for the BAU option. This has been quantified within the CIA model and subsequently recognised as the contingency figure included as part of capital FB forms (£1,163.2k). The analysis was undertaken between the Trust's Cost Consultant and Financial Adviser.

Risk for Option 1 Do Minimum and Option 2 Do Maximum has been separately quantified by the Trust's Cost Consultant and included in the Trust Project Construction Risk Register at £1,200k excluding VAT (reference Appendix 3d: Project Construction Quantified Risk – Planning Contingency. The Cost Consultant has combined their own risk calculation methodology alongside their technical understanding of the project, and outcomes of discussions with the PSCP regarding the GMP (and any risk inherent within this price), to establish what is felt to be a robust approach to the costing of risk. The Trust Project Construction Risk Register was developed as part of the P22/NEC3 process and any risks that sit with the PSCP were identified appropriately.

The approach taken by the Trust's Cost Consultant uses a different methodology for calculating residual risk than is set out within the CIA model and, therefore, it was not deemed appropriate to quantify risk for Option 1 Do Minimum and Option 2 Do Maximum using the CIA model approach.

The quantified risk sum is therefore included as the planning contingency in the capital FB forms for both options.

The Trust is comfortable that there will be no unforeseen operational risks that need to be quantified.

The Trust agreed its approach to risk with NHSEI prior to FBC submission.

3.13.1 FBC: Risk Unmonetised Risks

The Trust has used a recognised project management approach to develop a standard project risk register for the project. Unmonetised risks are included within this standard Risk Register and set out in the Management Case.

3.14 FBC: Benefits Analysis

Table 3-20 and Table 3-22 below show the benefits identified for this project and which investment objective they are linked to.

It is noted that no cash releasing benefits (CRB), or societal benefits are identified for this project, the rationale being:

- CRB - There will be no service model changes resulting from this investment – it is a like for like theatre re-provision driven by the urgent RAAC panel issues described in the Strategic Case and so there are no CRBs that could be realised from a clinical perspective.
- At OBC there were some areas of cost that were forecast to fall as a result of investment (e.g.FM costs). These were not separately modelled as a CRB in the CIA model, rather they were captured as a part of the cost modelling. As stated above, due to an increase in GIFA, these costs have now increased slightly and therefore do not generate any cash-releasing benefits.
- The OBC states that activity "may" be repatriated from the ISTC back to the Trust. This will be a commissioner-based decision and would then require a 're-base' of the Trust's Block Contract (and modelling for increased operational costs). No detailed discussions have been held on this matter and this business case is not predicated on repatriation of activity and therefore it is not appropriate to account for additional CRBs on this basis.
- Societal - No pure societal benefits were identified as this project is based on a like for like service being provided from a safer environment.

Therefore, only non-cash releasing benefits (NCRB) and unmonetisable benefits are applicable.

The monetised non-cash releasing benefits (NCRB) are drawn from the approved OBC and remain unchanged following review by the Trust and its financial advisers. The Trust has agreed its assumptions with DHSC and NHSEI prior to FBC submission.

Table 3-20 Monetised Non-cash Releasing Benefits

Monetised NCRB benefit Name	Benefit Description	Linked with Investment Objective
1.Increased productivity of clinical staff	Removal of the need to complete RAAC panel surveys will reduce theatre downtime and increased productivity of clinical staff who cannot be redeployed. RAAC panel surveys cause annual downtime of up to 26 weeks per pair of theatres. Productivity benefit is calculated against pay costs for medical staff[11].	**Investment Objective 3:** Maximise opportunities for estate development and asset optimisation.
2. Reduction in non-productive time (non-medical staff)	3%[12] - 5% staff efficiency benefit in use of staff time, calculated against pay costs for non-medical staff.	**Investment Objective 3:** Maximise opportunities for estate development and asset optimisation.
3. Reduction in non-productive time (medical staff)	3% - 5% staff efficiency benefit in use of staff time, calculated against pay costs for medical staff.	**Investment Objective 3:** Maximise opportunities for estate development and asset optimisation.

Staff efficiency benefits are based on a % efficiency which is an estimate made by the Trust developed through experience and involvement in design team meetings. The level of these benefits is consistent with the prudent approach to the economic modelling adopted by the Trust throughout the business case and recognises a time saving that could be realised as a result of the location of the new theatres, when compared to the existing location (layout and clinical adjacencies).

[11] This could also classify as an 'avoided cost' but is included as a benefit within this appraisal.
[12] 3% has been used within the appraisal (for prudency) 'and separation of costs between non-medical staff and medical staff has been provided. There is no double-count of benefits in NCRB 2 and 3.

The case is not predicated on assumptions that an extra theatre can be provided within the existing staffing complement. The whole assumption (financially) is that there is no planned change to the main scope of the options as set out at OBC i.e., this investment continues to be a like for like theatre re-provision. The FBC assumption therefore remains as per the OBC and based on existing operational costs with a set level of activity. If demand were to grow significantly above assumed levels, this would be met by way of a change in the existing NHS commissioning arrangements and would therefore be considered outside the scope of this FBC.

The ICS has recognised the need for meeting demand growth with an ambition to have transformation as a key function of the ICS supported by pathway redesign at place (ICP) level. Whilst transformation would help manage demand in different ways there will be a need for the strategic commissioner to commission more acute surgical activity, which will form part of the annual commissioning and contracting round and, again, would fall outside this investment appraisal. Therefore, there is no additional benefit from increased activity that can be realised.

In respect of the three non-cash releasing benefits described above, each NCRB has been quantified and included in the CIA model across the relevant appraisal years where benefits are to be achieved. Consideration has also been given to whether the benefit is received in full or whether there is a period where the full benefit 'ramps up'. In terms of recognition of Non-CRB benefits, improved staff efficiency is expected to be achieved throughout the appraisal period whereas the increased productivity of medical staff (resulting from no down time during RAAC panel surveys) would only be achieved during the years where surveys and resultant works are carried out i.e., up to year 13 in line with the NHSEI requirement to vacate all RAAC buildings by 2035.

Table 3-21 shows the non-cash releasing benefits for the three options.

Table 3-21 - Monetised Non-cash Releasing Benefits

	Option 0: Business As Usual £000	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Total Discounted Non-CRBs *	-	12,278.6	12,278.6

Source Appendix 3a: Economic Analysis FBC CiA
*Uplifted since OBC to align with the economic appraisal base date.
Note: Benefits are linked to investment objectives (and the case for change) and as the BAU option does not deliver against any of these there are no benefits to be derived from Business As Usual.

As can be seen the NCRBs for both the Option 1 Do Minimum and Option 2 Do Maximum are the same, reflecting that the difference between the options is the shell space only. No additional benefit has been factored in for the Do Maximum option as the FBC does not consider the availability of additional investment for a fitted out clinical shell that may, in the future, generate the additional clinical benefit - the assumption being that any benefit gained here must only be taken by any reciprocal investment.

3.14.1 FBC: Benefits Analysis: Unmonetisable Benefits

The Trust and its Financial Advisers have reviewed the unmonetisable benefits in the OBC and confirm that original benefits remain in place for the short-listed options. However, one extra benefit has been included. These unmonetizable benefits are set out in the table below.

Table 3-22 - Unmonetisable benefits

Unmonetisable Benefit Name	Benefit Description	Linked with Investment Objective
Improved patient experience (pre-treatment)	The mitigation of dual theatre closure for survey and remedial works under BAU will result in there being no further extension to patient waiting times for admission for surgery. Operations are likely to be cancelled under BAU, with no capacity within the local system (NHS or Private) to meet this demand.	**Investment Objective 4**: Develop assets which enable the delivery of clinical strategies.
Improved patient experience	New theatre areas designed to latest specification with patients at the heart of the design, stakeholder led design throughout to optimise patient experience. This includes new dedicated recovery/waiting area for Paediatrics.	**Investment Objective 2**: Invest in infrastructure to ensure a safe environment for the population and staff
Improved staff experience	Improved facilities for staff, including improved functional usage and prep space within the	**Investment Objective 2**: Invest in infrastructure to

Unmonetisable Benefit Name	Benefit Description	Linked with Investment Objective
	theatres (up to HBN recommendations). This will assist in recruitment and retention.	ensure a safe environment for the population and staff
Reduced infection control risk	The new theatres will be built to latest design specification reducing infection control risks with the current air handling units.	**Investment Objective 2**: Invest in infrastructure to ensure a safe environment for the population and staff

The unmonetisable benefits which will be derived from the shortlisted options are outlined in the table below.

Table 3-23 - Unmonetisable benefits

Unmonetisable Benefit Name	Option 0: Business As Usual	Option 1: Do Minimum: New Build 7 Theatres / Shell Space (Potential Non-Clinical Use)	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use)
Improved patient experience (pre-treatment)	✗	✔	✔
Improved patient experience	✗	✔	✔
Improved staff experience	✗	✔	✔
Reduced infection control risk	✗	✔	✔

Source Appendix 3a: Economic Analysis FBC CiA

3.15 FBC: Summary of Economic Appraisal – VFM

The table below summarises the results of the updated economic appraisal of the shortlisted options and is drawn from the completed Comprehensive Investment Appraisal (CIA) model (Reference Appendix 3a: Economic Analysis FBC CiA). The analysis uses the Net Present Costs to determine the incremental change (up or down) from BAU.

Table 3-24 Summary of FBC Economic Appraisal – CiA NPC

	Option 1: Do Minimum: 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Incremental Costs		
Revenue	-277.8	-277.8
Net Contributions	-769.4	-769.4
Total Costs	**-1,047.2**	**-1,047.2**
Incremental Benefits		
Cost Reduction – Capital (Including Optimism Bias)	2,391.2	1,355.8
Cost Reduction – Risk	1,163.2	1,163.2
Non-Cash Releasing Benefits	12,278.6	12,278.6
Total Benefits	**15,833.0**	**14,797.6**
Risk Adjusted Net Present Social Value (NPSV)	14,785.8	13,750.4
Benefits Cost Ratio	15.12	14.13
Rank	1	2

Source Appendix 3a: Economic Analysis FBC CiA

The above demonstrates that Option 1 Do Minimum has the highest BCR and NPSV of 15.12 and £14,785.8k respectively.

The only difference between the two options, as explained earlier in this Case, is that the capital costs for Option 2 Do Maximum are more expensive, hence the BCR and NPSV are lower for this option.

The metrics for the Preferred Option compared to a BCR of 11.69 at OBC stage and a NPSV of £16,941.3k, as shown in section 3.9.

The key reasons for the changes are summarised below:

- The inclusion of additional FM costs that were not modelled at OBC stage i.e., PFI variation costs and adjustments to building running costs to reflect an overall net increase in GIFA.
- The addition of lost car parking income since OBC.
- An inflationary uplift has been applied to the NCRBs since OBC.
- A change to the treatment of risk has been applied since OBC whereby BAU is now quantified within the CIA risk worksheet but Option 1 Do Minimum and Option 2 Do Maximum has a contingency/risk sum included within capital expenditure. This change in modelling/presentation of figures does not affect the NPSV of options but it does impact the BCR. Hence, it is felt that NPSV is a better metric to use when comparing OBC to FBC changes.
- Increase in capital costs for all options since OBC to recognise the Trust has reached agreement on a GMP (Option 1 Do Minimum & 2 Do Maximum) and updated BAU to reflect further estate deterioration.

3.16 FBC: Sensitivity analysis

Figures used in economic appraisals are rarely certain and, as it is not possible to remove all uncertainties, it is important to examine the impact upon the appraisal should the values included prove to be incorrect.

As the assumptions for Option 1 Do Minimum and Option 2 Do Maximum are the same, with the exception of construction costs, sensitivity analysis is focused on changes in capex (including lifecycle costs) as shown in the table below. The basis of capital costing for both options is the GMP received from the PSCP and so costs for one option should not change without the other being affected also. Sensitivity testing has been conducted on Option 1 and Option 2 at the same time.

Operational costs, such as building running costs, are almost identical in all three options and so have not been sensitivity tested. The rationale for this is that we would not expect costs within a single option to change without other options also being affected.

Table 3-25 Summary of FBC Economic Appraisal – CiA

	Option 1: Do Minimum: 7 Theatres / Shell Space (Potential Non-Clinical Use) £000	Option 2: Do Maximum: New Build 7 Theatres / Shell Space (Potential Clinical Use) £000
Base Case		
Risk Adjusted Net Present Social Value (NPSV)	14,785.8	13,750.4
Capex & LCC +10% (Option 1&2)		
Risk Adjusted Net Present Social Value (NPSV)	11,982.5	10,843.6
Capex & LCC +20% (Option 1&2)		
Risk Adjusted Net Present Social Value (NPSV)	9,179.2	7,936.8
Capex & LCC NPSV Switching Point + 52.75%		
Risk Adjusted Net Present Social Value (NPSV)	-1.4	
Combined Capex, Avoided Costs and Lifecycle Reduction (BAU) Reduction of 10%		
Risk Adjusted Net Present Social Value (NPSV)	11,743.4	10,708.0
Combined Capex, Avoided Costs and Lifecycle Reduction (BAU) Reduction of 20%		
Risk Adjusted Net Present Social Value (NPSV)	8,701.0	7,665.6

As would be expected, increases in capex and lifecycle costs in both options at the same time cause reductions in the NPSV at a very similar level. However, the NPSV remains positive at changes of +10% and +20%. The switching point at which the Preferred Option no longer retains a positive NPSV is when capital and lifecycle costs are increased by 52.75%.

If all capital related costs relating to BAU (BM, avoided costs and lifecycle) were to reduce by 10% and 20% respectively, a positive NPSV is still retained.

The above analysis suggests that the results of the appraisal are not sensitive to changes in these main cost drivers.

3.17 Conclusion

After taking into account the final Guaranteed Maximum Price for the delivery of the Main Theatres project, following negotiations with Graham Construction (PSCP), the BCR/NPSV appraisal reconfirms that Option 1 Do Minimum remains the Preferred Option. This option delivers a new two storey facility with 7 theatres on the first floor and shell space on the ground floor with potential for non-clinical use. Option 1 continues to offer a VFM solution and is the best public/social value option.

Key components include:

- Enables the Trust to exit the current high risk, RAAC accommodation for Main Theatres on a timely basis.
- Delivers significant improvements to the patient and staff experience.
- Provides capacity and capability to meet future demand, either within the capacity provided or the potential flexibility to extend operating hours.
- Achieves compliance with HBNs and HTMs, with a limited number of agreed derogations where necessary.
- Links into the existing main Hinchingbrooke Hospital and Treatment Centre to facilitate patient flows.
- Provides the scope for appropriate linkages to the future redeveloped part of the Hinchingbrooke site to ensure future site coherence.
- Includes resilient plant which meets infection control standards on a robust and sustainable basis.
- Creates a facility which meets Modern Methods of Construction, Net Zero Carbon and BREEAM Excellent requirements.
- Delivers a value for money solution which is consistent with the Trust's plans for future site redevelopment.

More detail on the preferred option and how it is to be delivered is included in the Commercial and Management Cases of this FBC.

4 Commercial Case

4.1 Introduction

This section sets out the commercial case for the delivery of the preferred option, Option 1: Do Minimum to develop 7 new theatres within the Main Theatres facility currently located within the 'Best Buy' area of Hinchingbrooke Hospital. This section is structured in accord with the Fundamental Criteria checklist.

4.2 Scope

Currently there are 7 theatres that sit within the old 'Best Buy' part of the Hinchingbrooke Hospital Site, constructed using RAAC panels. They are at risk of structural failure and the 'Best Buy' part of the Hospital must be replaced by 2035. The theatres are old, undersized and with outdated/obsolete and non-compliant plant. After careful review and high-level costing as well as estimating the possible timelines, it became clear that a refurbishment of the current theatres area would be expensive and lengthy, carry a high level of risk and represent poor value for money given that the backlog maintenance and RAAC panel issue would not be addressed.

The preferred option, Option 1: Do Minimum delivers the re-provision of the 7 existing Main Theatres within a new facility that joins to the first floor, linked to the current Elective Treatment Centre, providing a fast route to the Obstetric Theatre from the Labour Ward and with a vertical adjacency to the Critical Care Unit. The design reflects the Productive Theatre ethos, to be as efficient as possible for the patients and staff who use the building.

Service redesign/transformation is already in progress and is not dependent on the development of the new theatres. Instead, the operational aspects will be a "lift and shift" of the current service delivery model. The investment is therefore very much predicated on the benefits that the replacement of the existing poor-quality facilities will realise.

The preferred option, Option 1: Do Minimum incorporates:

- A new Main Theatre Building which comprises.
  - A ground floor which is earmarked for future fit out for non-clinical administration or support services. Funding for this fit out does not form part of this business case. The space does not lend itself to clinical services because it is a deep planned space with constraints on patient flows and clinical adjacencies.
  - First floor. 7 new theatre suites incorporating an admissions area, recovery and staff support spaces including staff change areas and MDT room. One theatre within the Main Theatres building will be dedicated to Obstetric Surgery. Three of the theatres are laminar flow theatres.
  - Flat roof – external plant accommodation.
- The new Mains Theatres Building will be connected to both the main hospital building and PFI Treatment Centre to facilitate the smooth transport of patients and staff.
- Relocation of existing buildings on the new build site including.
  - Demolition and removal of Woodpecker Lodge (administration) and Staff Change facility.
  - Removal of 51 parking space. Trust will implement its Green Travel Plan and therefore spaces will not be re-provided (reference section 1.12.8).
- Enabling incorporates the development of a new
  - Modular building for Staff Change facilities.
  - New modular stores adjacent to Elm Ward.
  - Reprovision of Woodpecker office accommodation within existing, refurbished facilities elsewhere on the Hinchingbrooke site, taking into account the impact of agile working.

Details on the design are set out in Section 4.6.

4.3 New Main Theatre Building - Procurement

The Trust undertook at OBC stage a comprehensive assessment of potential procurement routes to deliver the new two storey building within the preferred option, Option 1: Do Minimum facilitated by experienced external advisors. The procurement options considered were as follows.

- Design and build (traditional).
- ProCure22/ SCAPE.
- NHS LIFT.
- Property Joint Venture.

4.3.1 Results of the Commercial Option Appraisal

An options appraisal workshop in respect of procurement and funding took place on 26.10.20 which was cognisant that the Trust had a P22 PSCP partner (Graham Construction). This workshop reviewed the procurement options as part of the Treasury options appraisal requirement and confirmed the preferred procurement route as P22.

4.4 New Main Theatre Building - Procurement Strategy

4.4.1 Procurement and selection process: Graham Construction

Graham Construction is the Trust's Preferred Supply Chain Partner (PSCP) under P22. The Trust undertook a full procurement process in 2018/19 to confirm Graham Construction as the Trust's PSCP on 12 March 2019.

Graham Construction, as the Trust's PSCP, has been appointed to deliver multiple major schemes (P22-0083) including the Urgent Care expansion. The Main Theatres scheme (this project) was mentioned as one of the potential additional which, together with Urgent Care and wider site redevelopment, form the Hinchingbrooke Hospital Redevelopment Programme.

Graham Construction successfully delivered the Urgent Care project on time and within budget and therefore the Trust decided to continue with the PSCP for this project.

By working within the DHSC approved P22 framework, procurement sits within EU procurement law.

4.4.2 Procure 22 and ProCure 2020

At the time of writing this business case, the P22 framework is expected to be replaced by ProCure2020 (P2020). It is expected that ProCure2020 framework will be rolled out in 2021 but at the current time there is no confirmed date. ProCure22 will remain live and available to NHS clients until P2020 goes live.

In light of the uncertainty of the timing of the switch to ProCure2020, the Trust has progressed the project with its PSCP partner, Graham Construction, under P22.

4.5 New Main Theatres Building – Planning Approval

4.5.1 Introduction

This sub-section focuses on full planning permission and associated conditions.

4.5.2 New Main Theatre Building - Full Planning Permission

Huntingdonshire District Council granted planning permission on 4 June 2021 for the demolition of Staff Change accommodation and Office accommodation and Erection of New Theatre Block over ground, first and plant floors and associated landscaping works and cycle parking provision.

A copy of the full planning permission (Application Number: 21/00604/FUL) dated 4 June 2021 is set out in Appendix 4a: Main Theatres Building: Full Planning Permission.

The Trust will meet and deliver the requirements of the conditions summarised in Table 4-1.

Table 4-1 – Planning Permission Conditions - New Main Theatre Building

No.	Condition	Response
1	The development shall be begun before the expiration of three years from the date of this permission.	Agreed.
2	The development hereby permitted shall be carried out in accordance with the approved plans listed on Page 1 of the Permission. .	Agreed.
3	No development above slab level shall take place until manufacturer details of all to be used in the construction of the external surfaces of the proposed development have been submitted to and approved in writing by the Local Planning Authority (LPA).	Agreed.
4	No development above slab level shall take place in connection with the development hereby approved until full details of i. Hard landscape works. ii. Soft landscape works. iii. tree pits. iv. Full details of landscape maintenance regimes; v. An implementation programme for the landscape works.	Agreed.
5	No development above slab level shall take place until a Biodiversity Method Statement has been submitted to and approved in writing by the LPA.	Agreed.
6	The rating level of sound emitted from fixed plant associated with the development shall not exceed set criteria.	Agreed.

No.	Condition	Response
7	Prior to first use of the Theatre Block, a noise assessment and report shall be carried out to ensure that the noise limits set out in Condition 6 of this Decision Notice shall not be exceeded.	Agreed.
8	Prior to the commencement of development including any site clearance, a Construction Environmental Management Plan (CEMP) shall be submitted to and approved in writing by the LPA.	Agreed.
9	Construction and demolition times are restricted in line with HDC guidance.	Agreed.
10	Prior to the installation of any external lighting a scheme shall be submitted to and agreed in writing with the LPA	Agreed.
11	Prior to construction above damp-proof course, a scheme for on-site foul water drainage works shall be submitted to and approved in writing by the LPA.	Agreed.
12	No development above slab level shall take place or areas of hard standing constructed until a surface water drainage scheme has been submitted to and approved in writing by the LPA.	Agreed.
13	Prior to the first use of the Theatre Block, a method statement for the promotion of sustainable modes of transport shall be submitted to and approved in writing by the LPA.	Agreed.
14	Prior to the first use of the Theatre Block, a Car Parking Management Strategy detailing how the net loss of 51 car parking spaces resulting from this development will be mitigated and managed shall be submitted to and approved in writing by the LPA.	Agreed.
15	Prior to the first use of the Theatre Block, on-site access roads etc shown on the approved Proposed Site Plan shall be made available for operation and shall thereafter be retained in perpetuity.	Agreed.
16	Prior to the first use of the Theatre Block, the relocated and additional cycle storage as shown on approved plan shall be installed and retained thereafter in perpetuity	Agreed.
17	The development shall be undertaken in accordance with the submitted tree protection measures detailed on the approved plan unless the LPA gives written approval to any submitted alternative details.	Agreed.
18	Each block of units shall meet BREEAM 'Excellent' as a minimum prior to first occupation and shall be retained as such thereafter.	Agreed.

4.5.3 New Main Theatre Building - Full Planning Permission Community Infrastructure Levy Charge

The Council placed a note to the planning permission in respect to a Community Infrastructure Levy (CIL) charge for the new Main Theatres Building. The Trust and Graham Construction are actively engaging with the Council on this issue with a view to agreeing an approach that means the scheme is not impacted adversely from a financial perspective. The PSCP's planning advisor has indicated that it is not common practice for healthcare developments to incur this charge.

The Trust has prudently incorporated the one-off charge of £268k into the Planning Contingency (Appendix 3d: Project Construction Quantified Risk – Planning Contingency) within the FB1 form and the latter into the economic and financial analysis.

4.6 New Main Theatre Building - Design

4.6.1 Introduction

This sub-section focuses on the design including associated issues such as, BREEAM and 1:200 and 1:50 drawings.

4.6.2 Overview

The preferred option, Option 1 : Do Minimum for the new Theatres Building at Hinchingbrooke Hospital, has been developed through a process of comprehensive stakeholder and community engagement (Reference Appendix 6p: Stakeholder Engagement & Communications Reports) and sign off of 1:200 and 1:50 drawings in Section 4.6.8.

The preferred option has been designed to meet recent government targets for sustainability and efficiency, the requirements of MMC (Modern Methods of Construction), BREEAM Excellent and be Net Zero Carbon.

The preferred option is consistent with, and part of, the Trust's Development Control Plan (DCP), set out in Appendix 2a: Development Control Plan.

4.6.3 Context

Surgical and Inpatient Services are currently operating within ageing accommodation at Hinchingbrooke Hospital. There are emerging building fabric problems with stability as well as obvious spatial and infrastructure non – conformities with current Healthcare guidance. The scheme will enable replacement of Main Theatres which are currently located in the part of the Hospital where there are RAAC panels (in the walls and the roof) and provide spatially compliant theatres with new supporting infrastructure.

A RAAC panel roof failed within 48 hours of cracks first appearing in a school in 2018. Following this, NHSEI stipulated that all RAAC panel hospitals should be replaced by 2035. Initial surveys were undertaken in 2019 by the Trust and they identified how serious the RAAC panel issue is and the urgent need for the Board to address the significant risk of structural failure. The RAAC panels are also prevalent across large parts of the Hinchingbrooke Hospital site and the Main Theatres scheme is the first significant step in redeveloping the Hospital site to address RAAC and other infrastructure issues.

The design of the internal layout aims not only to replace the existing services, but also to design with the future of Hinchingbrooke Hospital in mind in terms of the development control plan to replace the main RAAC panel building.

The site consists of a variety of Trust owned buildings and a PFI owned building. The proposed development sits between the Trust owned Existing Main building (RAAC building) and a PFI owned Treatment Centre. The relationship between the proposed Main Theatres building and the two existing buildings are critical drivers of the project.

The nature of the building and future use has led to the design being seen as a standalone facility, albeit linked to the existing facilities to support current use, with future links and soft spaces included for the future site development and integration within a new hospital.

As part of the development, existing facilities known as Staff Change and Woodpecker Lodge (Office Space) will be demolished to make way for the proposed new Main Theatres. The functions of the buildings demolished will be decanted and re-provided as part of enabling works.

In addition to the buildings, a canopy structure will also be demolished where access was enabled from Woodpecker Lodge into the existing main theatres. This will be replaced with a proposed vertical access core that connects the existing Main Hospital with the proposed Main Theatres.

4.6.4 Existing buildings & Demolition

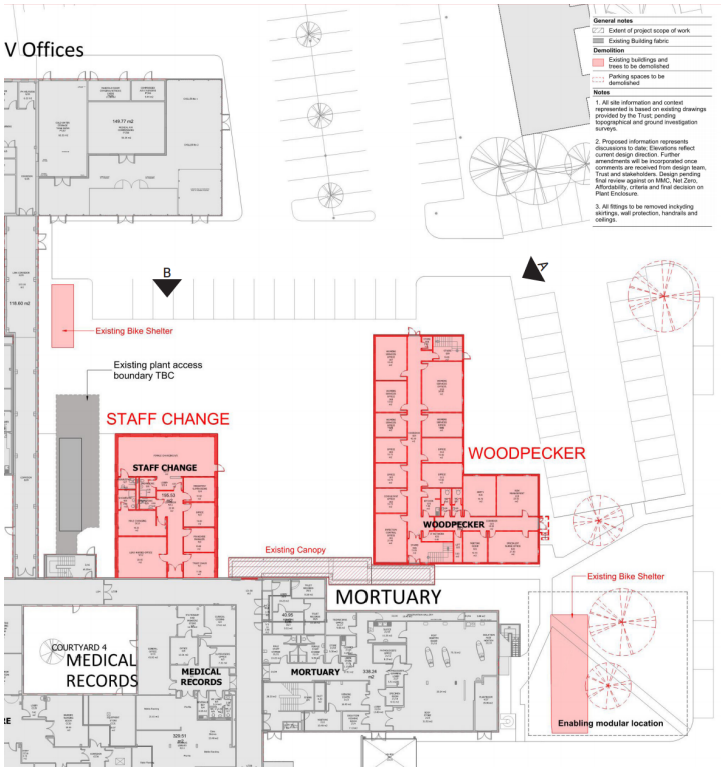
The project site sits within a large Hinchingbrooke Hospital site and is illustrated below.

Figure 4-1 – Existing buildings

The proposed project site can only be accessed within the hospital. The hospital site has 3 main entrances along Hinchingbrooke Park Road.

The areas earmarked for demolition to create space for the new Main Theatres facility - Staff Change and Woodpecker Lodge (Office Space) – are illustrated below.

Figure 4-2 – Staff Change & Wood Pecker Lodge (Office Space)



4.6.5 New Main Theatres development

The new Main Theatre Building will replace 7 existing theatre suites and comprises.

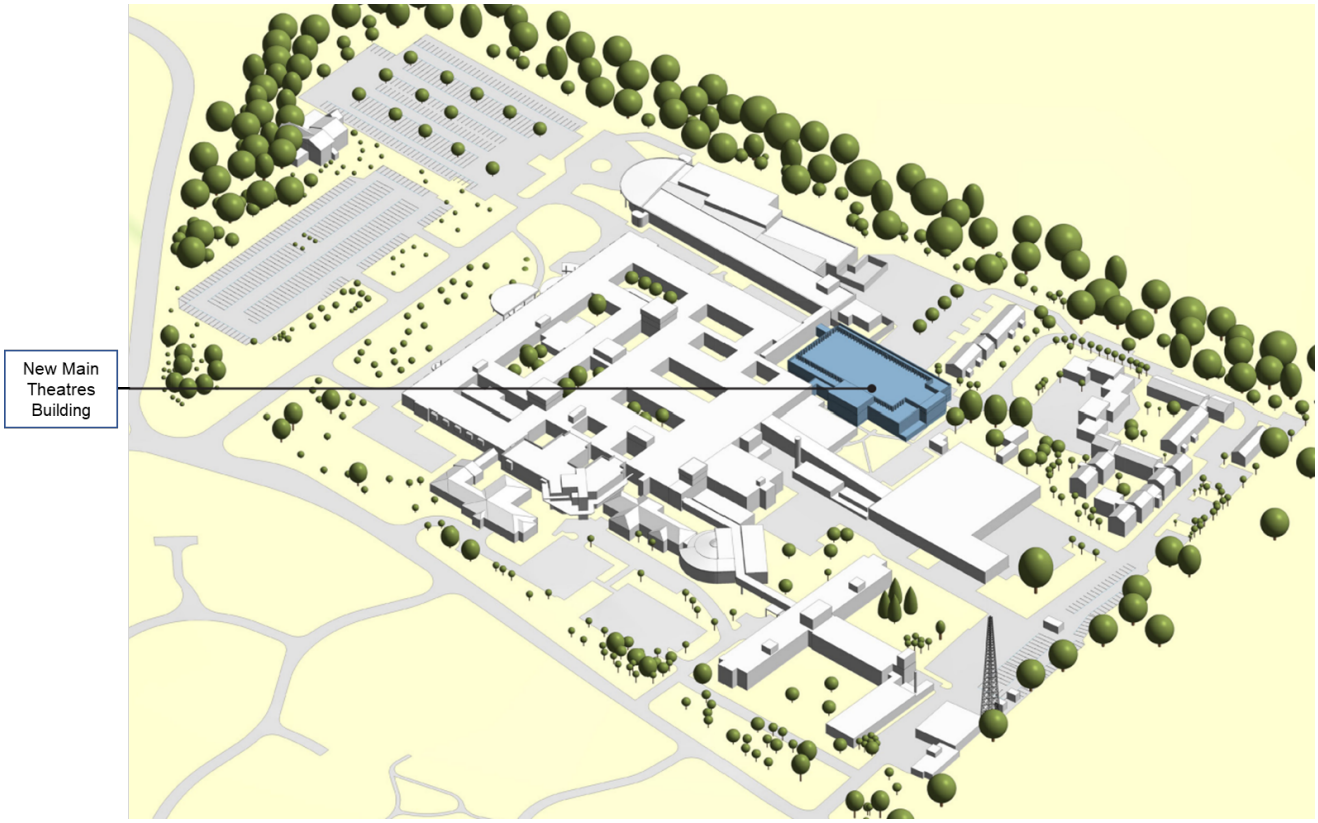
- A ground floor which will be fitted out in the future for non-clinical administration or support services. The space does not lend itself to clinical services because it is a deep planned space with limited clinical flows and adjacencies.
- First floor. 7 new theatre suites incorporating an admissions area, recovery and staff support spaces including staff change areas and MDT room. One theatre within the Main Theatres building will be dedicated to Obstetric Surgery. Three of the theatres are laminar flow theatres.
- Flat roof – external plant accommodation.

The new Main Theatres Building (first floor) will operate with the following existing services:

- Existing Main Hospital
  - The new Main Theatres Building will be connected to the exiting main hospital to support the efficient transfer of patients and staff movement.
- Treatment Centre
  - A link corridor will be built connecting the Main Theatres Building (first floor level) to the Elective Treatment Centre and is captured as a part of a contract variation to the existing PFI agreement (reference 4.12).
  - Patients will be brought in and out of Main Theatres via the link between the Treatment Centre and first floor of the new Main Theatres building.
  - Efficient patient and staff flow is addressed and built into the design.
- Obstetrics Theatre
  - One theatre within the Main Theatres building will be dedicated to Obstetric Surgery.
  - As noted above a connection link has been designed for the rapid transport of Obstetric patients to the Obstetric Theatre from the Labour Ward and with a vertical adjacency to the Critical Care Unit. The design reflects the Productive Theatre ethos, to be as efficient as possible for the patients and staff who use the building.
- Inpatient Wards
  - Patients will be transported to and from the new Main Theatres from the inpatient wards. These are all on the first floor.

Outlined below are pictorial representations of the location and exterior of the new Main Theatres Building on the Hinchingbrooke site.

Figure 4-3 – New Main Theatres Building & Modular Staff Change on Hinchingbrooke Hospital site



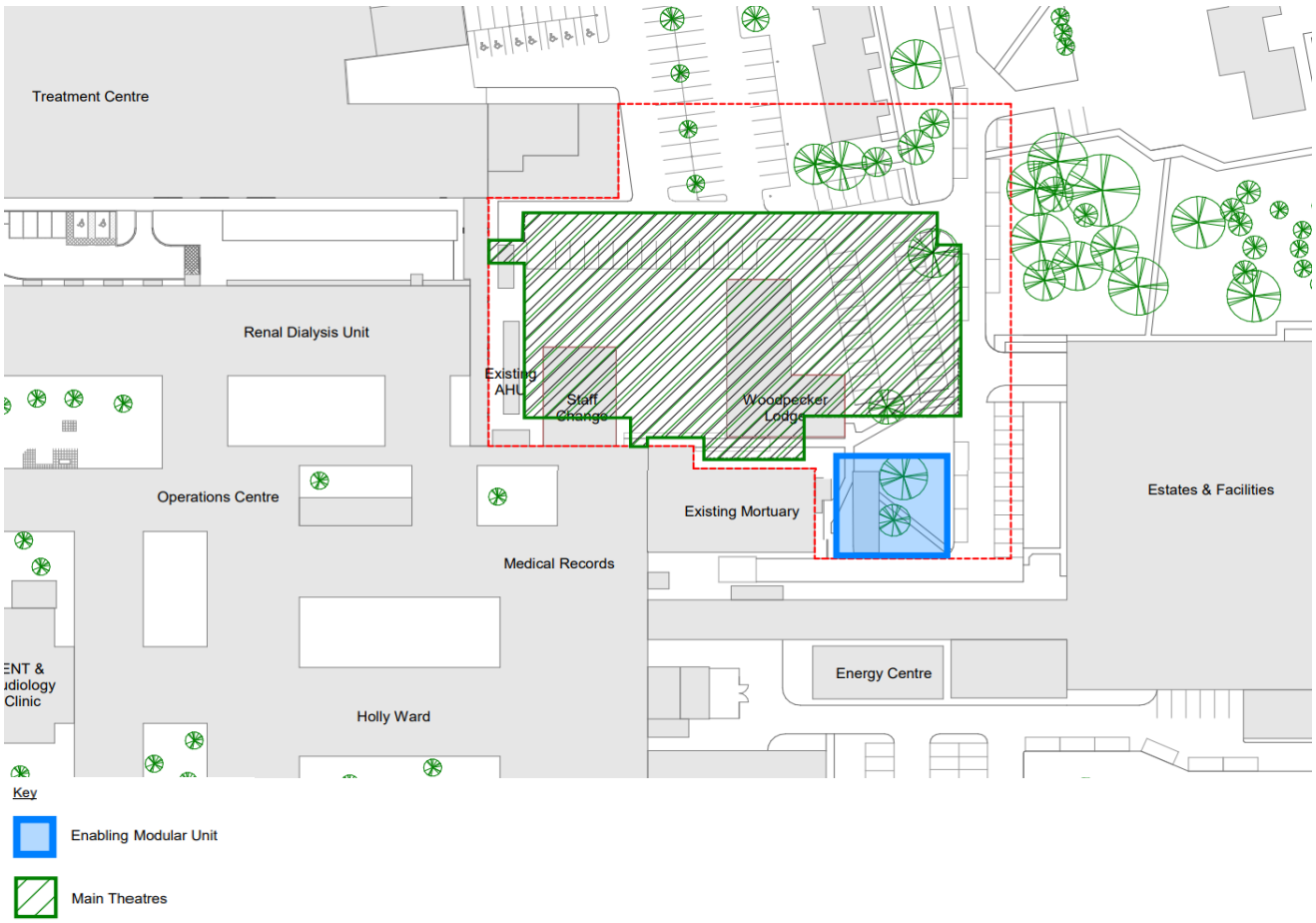


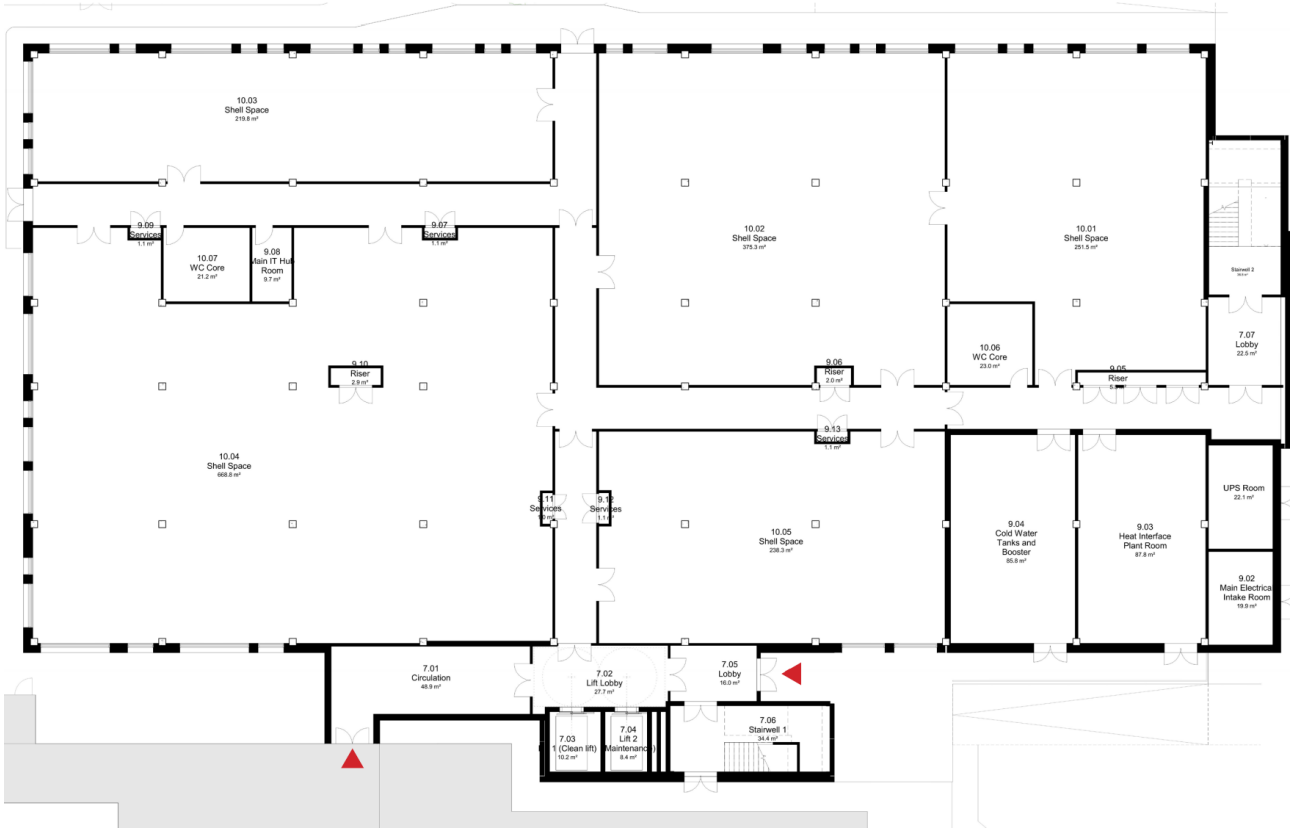
Figure 4-4 – Indicative external design of Main theatres – Day time

Outlined below are pictorial representations of the interior of the ground and first floor of the new Main Theatres Building on the Hinchingbrooke site.

Figure 4-5 - Interior of the ground and first floor of the new Main Theatres Building

First Floor

Ground Floor



4.6.6 Adjacent RAAC Buildings

Throughout the design process, the Trust and the P22 Supply Chain Partner (Graham Construction) have been acutely aware of the proximity of the proposed new Main Theatres building to the RAAC Panel part of the Hospital. The Trust have been cognisant of the “fragility” of the adjacent RAAC building which has been an integral consideration from the outset of the design process. The Trust commissioned a Geotechnical Survey ruled out the need for piling and a pad solution has been adopted.

The Trust, along with Graham, is putting in place measures to monitor the RAAC buildings so that the risk can be managed carefully. These arrangements will be monitored throughout the construction period and enhanced where necessary. These arrangements will cover the enabling works (demolition of both Staff Change and Woodpecker Lodge) and service diversions for the proposed construction site. Both parties are receiving detailed input from specialist advisors to provide further assurance in relation to the vibration risk and the approach to the works in the Foundation Strategy.

The Trust has included this risk on its Project Risk Register and will monitor this issue very carefully and provide regular updates on the proposed solution to the Steering Group and the Trust Board.

The Trust remains confident that the careful planning and due diligence undertaken as part of the construction planning and delivery process will keep risks to a minimum. However, whilst time is of the essence with the Main Theatres Project, the Trust will not agree to commence construction unless it is appropriately assured in relation to the proposed approach to the Foundation Works during Stage 4 of the design process prior to commencement of the main construction works.

4.6.7 New Main Theatres development - Schedule of accommodation

Detailed services are described in the Schedule of Accommodation in Appendix 4b: Main Theatres Building: Schedule of accommodation. The design has been developed with extensive clinical involvement. A summary of the schedule of accommodation is shown below.

Table 4-2 - Summary Schedule of Accommodation

Area	Total m2
First Floor	
Admissions	98.6
Clinical Space (Theatre Suites)	844.7
Recovery	236.3
Support	228.6
Staff	256.2
Total Net Internal area	**1664.4**
Planning allowance	181
Engineering	41.5
Circulation	655.3
Total Gross Internal Area	**2542.2**

Area	Total m2
Ground Floor	
Shell Space	2046.6
Total Net Internal area	**2046.6**
Planning allowance	30
Engineering	257.1
Circulation	231.6
Total Gross Internal Area	**2565.3**

Area	Total m2
First & Ground Floor	
Total Net Internal area	**5107.5**

Area	Total m2
Roof	
Engineering	124.4
Net Internal Area	124.4
Total Net Internal area	**124.4**
Planning allowance	9
Circulation	185
Total Gross Internal Area	**318.4**

4.6.8 New Main Theatre Building – 1:200 & 1:50 drawings

1:200 and 1:50 drawings associated with the new Main Theatres Building are set out in Appendix 4c: Main Theatres Building: Drawings & Sign off 1:200 & 1:50s.

These are categorised as follows.

- Theatres.
- Admissions.
- Recovery.

- Resuscitation.
- Support.
- Staff.

The drawings have been validated and signed off by:

- F. Di Franco, Divisional Director Surgery (20 April 2021).
- K. Hopcraft, Divisional Operations Director – Surgery (20 April 2021).
- A. Patel, Consultant Surgeon (26 April 2021).
- S. Somers, Divisional Operations Manager – Theatres, Anaesthetics & Critical Care, Pain Management Service. (15 April 2021).
- S. Forder, Associate Divisional Director – Theatres, Critical Care & Pain (26 April 2021).
- J. Knaepel, Theatre Manager (See below).

In additional the following clinical design sign off was provided for specific areas on 14 April 2021 except where annotated.

Area: Theatres

- J. Knaepel, Theatre Manager.
- J. Wilkinson, Pharmacist (Signed 9 April 2021).
- S. Frye, Team Matron
- B. Young, Team Manager
- C. Tillott, Team Manager
- M. Collins, Team Manager
- J. Knight, PACU Team Manager

Area: Admissions, Theatres (incl Resuscitaire), Recovery, Staff, Support

- J. Knaepel, Theatre Manager.
- S. Frye, Team Matron
- B. Young, Team Manager
- C. Tillott, Team Manager
- M. Collins, Team Manager
- J. Knight, PACU Team Manager

Area: Staff

- J. Knaepel, Theatre Manager.
- S. Frye, Team Matron
- B. Young, Team Manager
- C. Tillott, Team Manager
- M. Collins, Team Manager
- J. Knight, PACU Team Manager

Area: Support

- J. Knaepel, Theatre Manager.
- S. Frye, Team Matron
- B. Young, Team Manager
- C. Tillott, Team Manager
- M. Collins, Team Manager
- J. Knight, PACU Team Manager.

4.6.9 New Main Theatre Building - Schedule of design derogations

The Trust's aim has been to deliver an affordable project within the allotted budget without compromising clinical functionality. The design has been developed through extensive consultation with the Clinical Team and their representatives illustrated above, commencing at the outset through the review of different theatre models, space allowances, the nature of the procedures being undertaken and the need for future flexibility.

The variations proposed do not result in a significant change. The net internal area for the first floor of the Main Theatres Building is 1664 m2 (Appendix 4b: Main Theatres Building: Schedule of accommodation) versus the HBN position of 1,679.5m2 or a reduction of less than 1.0%.

The variations were derived from a combination of detailed discussions with the users, their desire to support the new facility and improvement in flows which derive from the new design.

The HBN variations agreed are as follows:

- Recovery – the large area for Recovery rooms were considered unnecessary and reduced to support capacity.

- The Recovery areas were reviewed based on previous experience and model testing at 1:50 during exemplar layout review and it was agreed to reduce them to support capacity.
- Clean Utility for the recovery area was reduced during design as agreed with the Clinical Team.

These variations have been the product of extensive discussion with the Technical/ Clinical Team and are fully supported by them. The Stage 2 design has been formally signed off by the Technical/ Clinical Team.

The schedule of design derogations is outlined in Appendix 4d: Main Theatres Building: Schedule of Design Derogation and includes one derogation related to HTM 05-02: Fire Code (reference 4.6.11).

Whilst the two lifts and associated stair cores are not separated within the Main Theatres design, the broader context within which the design sits is important.

HTM 05-02 states that "Should evacuation become necessary, except for those premises with independent occupants, it should be based on the concept of progressive horizontal evacuation, with only those people directly at risk from the effects of fire being moved. Adopting this approach ensures that the concept of “inclusive design” has been applied."

HTM 05-02 further states that:

"There are three main stages of evacuation:

Stage 1 – horizontal evacuation from the area where the fire originates to an adjoining sub-compartment or compartment; Stage 2 – horizontal evacuation from the entire compartment where the fire originates to an adjoining compartment on the same floor. Subsequent additional horizontal evacuation to adjacent compartments may be undertaken (thereby putting additional fire resistance between the building occupants and the threat) prior to undertaking vertical evacuation; and Stage 3 – vertical evacuation to a lower floor, or to the outside."

"The principle of progressive horizontal evacuation is that of moving occupants from an area affected by fire through a fire-resisting barrier to an adjoining area on the same level, designed to protect the occupants from the immediate dangers of fire and smoke (a refuge). The occupants may remain there until the fire is dealt with or await further assisted onward evacuation by staff to another similar adjoining area or to the nearest stairway. This procedure should give sufficient time for non-ambulant and partially ambulant patients to be evacuated vertically to a place of safety, should it become necessary to evacuate an entire storey.”

The Fire Strategy underpinning the design of the new Main Hospital is based on the principle of progressive horizontal evacuation.

The new Main Theatre facility will not be stand alone but will be connected to the main hospital. There will be a first floor link bridge between new Main Theatres and the Treatment Centre link corridor at first floor between the Treatment Centre and the Main Hospital building. In addition, there will be a separate minor link adjacent to - and separate from - the two lifts within Main Theatres. Currently, the design also has a ground floor linked connection between the Main Hospital to the main lift lobbies and/or stair core serving new Main Theatres. This will provide access mainly for the movement of Maternity patients between the Maternity Unit and Main Theatres.

The longer term solution is for there to be a number of additional links into a newly developed Main Hospital which will ensure full compliance with the spirit and letter of HTM 05-02. However, whilst the Trust is fully committed to achieving a long term solution for the RAAC panel part of the site and the rest of the Hospital, there is as yet no agreed timeline or funding solution.

Stroma Building Control has reviewed the general layout and Fire Strategy drawings provided by Murphy Philipps (Graham’s design advisor), in conjunction with the Fire Strategy Report produced by BB7 (Graham’s Fire Authorising Engineer) and are generally satisfied that the proposals achieve compliance with the Building Regulations. Both Stroma and BB7’s reports are set out in Appendix 4f: Main Theatres Building: Statement of Compliance (Fire Safety).

The proposed strategy to utilise the lifts within the existing building for vertical evacuation is deemed acceptable by Stroma, particularly due to section 3.51 of HTM 05-02 which advises that it can be considered appropriate to utilise existing lifts within large hospitals, subject to suitable compartmentation.

4.6.10 New Main Theatre Building - Infection control

The Trust’s Infection and Prevention Control Team has been involved since the project’s design inception and throughout the design process. The 1:200 and 1:50 drawings have been signed off by the Trust’s Deputy Director of Infection Prevention and Control as set out in Appendix 4e: Main Theatres Building: Infection Control.

4.6.11 New Main Theatre Building - Statement of Compliance (Fire safety)

Stroma Building Control has reviewed the general layout and Fire Strategy drawings provided by Murphy Philipps (Graham’s design advisor), in conjunction with the Fire Strategy Report produced by BB7 (Graham’s Fire Authorising Engineer) and are generally satisfied that the proposals achieve compliance with the Building Regulations (reference Appendix 4f: Main Theatres Building: Statement of Compliance (Fire Safety).

Cambridgeshire Fire & Rescue Service has indicated their provisional approval of the current evacuation lift provision and the reliance on a progressive horizontal evacuation strategy (as confirmed via email on 17.06.21), subject to the preparation of a robust management plan for the use of the new Theatre Block (considering the guidance of BD 2466), and to include how evacuation will be managed during occupation/operation of this new building.

The provision of the new evacuation lifts is considered to achieve the intent of HTM guidance when considered in the context of an extension to an existing building and also improves the evacuation lift provision for a fire occurring elsewhere in the existing building. In BB7's opinion, this should demonstrate compliance with Part B of the Building Regulations.

The Trust will develop a fire management/evacuation plan for the new theatres before the commissioning of the new facility.

Regulatory Reform (Fire Safety) Order 2005: Responsibility for complying with the Fire Safety Order rests with the responsible person, which for the majority of healthcare organisations will be the employer, the Trust.

The Trust has agreed to a derogation against HTM 05-02 in respect of the non-separation of the two lifts and associated stair cores within the new Main Theatres facility, but in all other respects, the building will be compliant with HTM 05-02 and the design and fire strategy has written confirmation of support of the parties cited above. The Trust's Chief Executive Officer has confirmed acceptance of the Theatres Fire Strategy / Design and this document is located in Appendix 4f: Main Theatres Building: Statement of Compliance (Fire Safety).

New Main Theatre Building - Design Appraisal Toolkit

The Design Appraisal Toolkit (DAT) is a method of working through a series of questions at each business case stage to assess the design and use the assessment as a marker for the next stage. It gives a clear indication through graphical representation that is the product of scores input for each element such as internal design, external design, comfort, experience and delivery of service.

At DAT Stage 3 (FBC) workshop was help on 26 May 2021 to undertake the DAT. This included the Project Director and clinicians and service managers associated with the project. The output and workshop attendees are illustrated in Appendix 4g: Main Theatres Building: Design Appraisal Toolkit (DAT).

4.6.12 New Main Theatre Building - DHSC Consumerism

Table 4-3 sets out the expectations in relation to DHSC Consumerism13 and how the design addresses these requirements where applicable.

Table 4-3 New Main Theatre Building - DHSC Consumerism compliance

DHSC requirement	How the project addresses the requirement
Acceptable levels of privacy and dignity at all times	Shared holding area but once patients are in the Anaesthetic rooms, they are separated and then from that point on including separate recovery male and female and then back to a managed corridor situation. Provision has been made for separate pre-operative and post-operative entrance and exit. Through this project, the Trust is seeking to improve the Paediatric pathway by providing separate waiting and recovery areas for children. This will enable parents to remain with their children.
Gender-specific day rooms	Not applicable.
High specification fabric/finishes to reduce lifecycle costs	Procure 22 standard components catalogue has been adopted.
Natural light and ventilation	Staff/waiting areas have natural light, maximising natural light in the recovery area too. All other areas as per clinical specification. The floor is fully mechanically ventilated.
Zero discomfort from solar gain	Solar gain has been considered. Blinds are provided to windows to minimise discomfort from glare. The floor is fully ventilated.

[13] Section 3.8.8 of "Capital regime, investment and property business case approval guidance for NHS trusts and foundation trusts - Annex 1: Business case core checklist", NHS Improvement, November 2016.

DHSC requirement	How the project addresses the requirement
Dedicated storage space to support high standards of housekeeping and user safety	Integrated within the schedule of accommodation and subsequently included in design.
Dedicated storage for waste awaiting periodic removal	Provided within the schedule of accommodation and subsequently included in design.
Inpatient bed configurations of >50% single en-suite and >5 bed bays with separate en-suite WC and shower facilities with 3.6-metre bed centres	Not applicable.
single sex washing and toilet facilities	Included in design for staff changing areas.
Safe and accessible storage of belongings including cash	Every member of staff will have a locker. Inpatients attending for surgery will have belongings safely stored at ward level.
Immediate patient access to call points for summoning assistance	Provided in areas where patients are alone or within recovery.
Patient control of personal ambient environmental temperatures	Environment will be set to accommodate comfortable patient conditions.
Lighting at bed head conducive to reading and close work	Not applicable in this setting.
Patient bedside communication and entertainment systems	Not included due to nature of the building.
Elimination of mixed-sex accommodation (2011).	Shared holding area but once patients are in the anaesthetic rooms, they are separated and then from that point on including separate recovery male and female and then back to a managed corridor situation. Provision has been made for separate pre-operative and post-operative entrance and exit.

HBN 04-01 is not relevant to the project as there will be no inpatient facilities.

4.6.13 New Main Theatre Building -Sustainability

Table 4-4 below sets out the approach to sustainability and the objectives that will need to be achieved by the design and/or developed by the wider project team under subsequent stages.

Table 4-4 New Main Theatre Building - Design approach to sustainability

Key sustainability area	Proposed measures
Climate change adaption and mitigation	The design for Main Theatres has been developed with consideration being given, as far as practical, to the likely impacts of climate change. MEP measures will reduce the risks of internal overheating and promote flexibility for building services adaptation in the future. As part of the overall design team approach, measures to reduce the risk of flood risk have been integrated as applicable.
Energy & CO_2	The development has been designed to meet the energy requirements of BREEAM Excellent. Graham Construction's, advisors, Envision, submitted a BREEAM Design Stage Assessment on 16 June 2021. BRE have confirmed a rating of excellent and score of 80.6% (Reference Appendix 4h: Main Theatres Building: BREEAM – Interim Design Certificate).

Key sustainability area	Proposed measures
Effective use of land	The proposed development is re-using previously developed land and improves utilisation of the available plot of land by increasing the existing healthcare capacity.
Materials	The materials specification has been developed to follow the principles of lean design and use environmentally friendly and sustainably sourced materials. Robust and durable materials for facades will be used as well as materials with high recycled content whenever practical.
Water management	The project has been designed to minimise its water use. Measures include solutions such as the use of water saving fixtures and fittings and optimised water management through metering and leak detection where appropriate.
Pollution and local impacts	The design, construction and operation of the proposed development will ensure that pollution to land, air and water are minimised by implementing best practice construction policies and design. In terms of spillages and excessive emissions during construction, noise pollution and light pollution at night.
Waste	The project incorporates best practice waste reduction measures developed in line with a best practice sustainability hierarchy to reduce, re-use and recycle.
Health and wellbeing	Due to its function as a high-quality healthcare facility, the project will deliver a healthy and safe environment for patients, staff and visitors alike. Other health and wellbeing best practices such as the lighting design, acoustics, good access to natural light and the choice of materials with low volatile organic compounds or other chemical components have been incorporated.
Biodiversity	An ecological survey has been undertaken and as the project progresses an ecologist will be present during key work activities.
Transportation and accessibility	Similar to the above, the contributions of this scheme with respect to the overall strategic development of the site and the transportation and accessibility plan will be developed further under subsequent stages.

Sustainability has been at the heart of the design process and will remain so throughout construction and in to operation. The below outlines the strategy taken to integrate sustainability in to each stage of the process.

Design

From the outset of the project, sustainability goals have been set including.

- BREEAM Excellent with a score of 80.6% (reference Appendix 4h: Main Theatres Building: BREEAM – Interim Design Certificate)
- Identification of route to Net Zero Carbon in Operation.
- Identification of route to Net Zero Embodied Carbon.

A BREEAM Assessor and AP were appointed from the earliest stages to develop a strategy for achieving a BREEAM Excellent rating of 80.6%. Regular workshops have been run throughout the design stages, culminating in BREEAM Excellent Design Stage certification being achieved demonstrating a fully compliant design.

In addition to the BREEAM assessment, TM54 and Embodied Carbon modelling have been completed, with full team input to identify all opportunities to reduce embodied and operational carbon, both on a project specific level, but also on a site wide basis in terms of future energy centre adaptations.

Procurement

A sustainable procurement policy has been developed for the project. This outlines the key sustainability measures for the project, and all materials and services procured will be required to meet the requirements of this document.

Construction

A set of KPIs has been developed for implementation by the contractor with regard their site processes and work including waste quantities, diversion from landfill, CCS, and carbon footprint monitoring. A 3rd party “Site Sustainability Manager” will be appointed to monitor and advise on the implementation of these measures, as well

as the progress of the BREEAM assessment, and highlight any risks that may arise so that these may be resolved on an ongoing basis throughout the construction phase.

Handover

By following the soft landings framework, and through significant handover training, aftercare and accessible building information, the project aims bridge the performance gap between designed energy efficiency and actual energy efficiency.

4.6.14 New Main Theatre Building - BREEAM

Graham Construction's advisors, Envision, submitted a BREEAM Design Stage Assessment on 16 June 2021. BRE have confirmed a rating of excellent and score of 80.6%.

The full BREEAM report and certificate, BEEEAM-0088-6648 are provided at Appendix 4h: Main Theatres Building: BREEAM – Interim Design Certificate.

4.6.15New Main Theatre Building - Trust's Net Zero Carbon Strategy

The Trust is committed to the NHS Net Zero Carbon target.

Envision has been appointed by Graham Construction to develop a Net Zero Carbon Assessment for the new Main Theatres Block at Hinchingbrooke Hospital in Huntingdon, Cambridgeshire. This is illustrated in Appendix 4v: Envision Net Carbon Zero Assessment.

The purpose of a Net Zero Carbon Assessment is to develop a pathway to a Net Zero Carbon footprint. 'Net Zero Carbon' is the achievement of delivering zero emissions from the development, through the reduction of carbon and then offsetting of the remaining carbon emissions.

This report presents a Net Zero action plan for the North West Anglia NHS Foundation Trust to follow in order for the new Main Theatres Block to achieve Net Zero, following two potential approaches as defined by the UK Green Building Council (UKGBC).

The UKGB have developed a framework definition for Net Zero Carbon buildings, which sets out the process for demonstrating that a development has achieved Net Zero Carbon status. The framework sets out definitions and principles around two approaches to net zero carbon, which are of equal importance:

The Net Zero Carbon data has been evaluated in the Design Stage; a reassessment will be undertaken post-construction. The Design Stage assessment has however identified the following off-setting monies to be paid by the Trust, for Construction and Operational phases respectively.

The report confirms that the predicted offset costs are as follows.

Table 4-5 Net Carbon : Estimate Offset Costs (RIBA Stage 3 / 4)

Net Zero Carbon Route	Predicted Emissions to Offset (tonnes)	Offset Cost at £7.20 per tonne
Net Zero Carbon Construction	2480	£20,449
Net Zero Carbon Operational Energy	200	£1,440

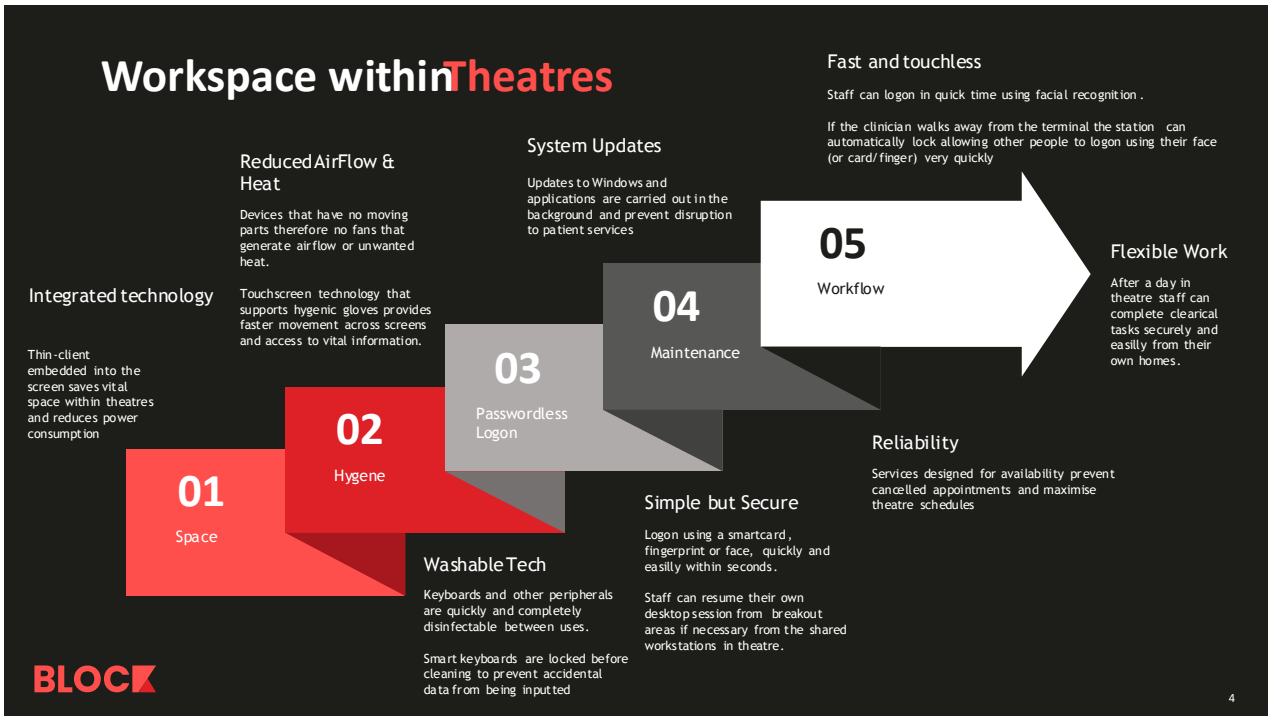
Source : Page 27 of Appendix 4v: Envision Net Carbon Zero Assessment

The above is the costs the Trust will incur to achieve a net carbon target of zero.

4.6.16 New Main Theatre Building - Digital & IT System Integration

The Trust is developing its Digital Strategy and the project is consistent with this evolving strategy. The Main Theatres Building will have the capability to incorporate the following principles of the blue print for a smart digital hospital

Table 4-6 Blue Print for Smart Digital Hospital



This is principally a “lift and drop project”, but the following IT has been incorporated into the preferred option 1: Do Minimum.

The following IT hardware has been incorporated into the Preferred Option: Option 1 Do Minimum.

The key components include Full Wi-Fi coverage across the floor, increased numbers of computer terminals to allow enhanced staff access, including within theatres. Future proofing with numerous power and data ports throughout the floor – including on the surgical and anaesthetic pendants. This will allow for data capture at the bedside as required. The pendants can also hold display screens to provide images, and patient data to assist the surgeon and the anaesthetist during surgery.

The Trust has the Vocera communication system at Peterborough hospital and there are plans to roll this out at Hinchingbrooke hospital; the Wi-Fi coverage has been enhanced to ensure the system can be implemented within the new theatre block.

The Trust is also committed to an RFID equipment tracking system – this will also be supported via the Wi-Fi in the new theatres building.

4.6.17 New Main Theatre Building - Security Assessment – Secure by Design.

The Trust has been in liaison with the Designing out Crime Officer under Secured by Design serving with Cambridgeshire Constabulary. The security assessment is set out in Appendix 4i: Main Theatres Building: Security Assessment: Secure by Design. Dave Griffin, Designing Out Crime Officer, Cambridgeshire Constabulary. He outlined that there is the opportunity for the Trust to achieve a Secured by Design Commercial award.

4.7 New Main Theatre Building - Terms of Contract

4.7.1 New Main Theatres Building – GMP NEC3 EC Contract.

Graham Construction are the Trust’s Preferred Supply Chain Partner (PSCP) under P22. The Procure 22 frameworks utilises the NEC3 Engineering and Construction Contract (ECC) to support the delivery of the capital schemes delivered via the framework.

The pricing mechanism selected is Option C – target contract with activity schedule, which operates on an open book basis with the NHS Client paying actual cost for the works completed up to the agreed guaranteed maximum price (GMP). Any saving (referred to as “gain share”) is shared between the parties, however any overspends

("pain") is met by the contractor. The contract operates a clear change control mechanism with strict timescales to be adhered to ensuring the impact of any changes are communicated and agreed in a timely manner.

The contract[14] also provides clear governance to control the delivery of projects with clear communication protocols, monthly programme and commercial forecast and design management.

The P22 frameworks utilises a largely un-amended version of the NEC3 ECC contract, although there are standard contract amendments agreed at framework level that apply to all projects delivered via the framework. This provides consistency in approach and delivery across all projects delivered via the framework nationally. No 'local' amendments can be incorporated in the P22 version of the NEC3 ECC contract without prior written agreement, which are extremely rare in occurrence.

The Project has adopted the NEC3 ECC contract and no project specific Z clauses have been inserted.

4.8 New Main Theatre Building - Price of Contract

4.8.1 New Main Theatres Building – GMP Edge Review

The final Guaranteed Maximum Price (GMP) submitted by Grahams is in the sum of £21,611k exclusive of Trust direct project costs and VAT. The GMP includes the physical construction costs, main contractor management, supervision and preliminaries, design fees and surveys costs, design development and construction risks, and main contractor overheads and profit (P22 fee). The project QS advisers, Edge, evaluated the GMP submission. Their report is contained in Appendix 4j: Main Theatres Building: Cost Advisors' Report.

The GMP does not include for other professional and consultant fees (Trust direct appointments and internal resources), IT and equipment costs (Group 2 and 3), decanting and other Trust direct works, and VAT.

The total out-turn costs for the new build theatres is estimated at £30,1367k inclusive of Trust direct project costs and VAT. A high-level financial summary is given below (detailed in Appendix D Edge's Report – reference Appendix 4j: Main Theatres Building: Cost Advisors' Report).

Table 4-7 New Main Theatre Building - GMP

Element	Net Total (£'000)	VAT (£'000)	Gross Total (£'000)
1) Construction Works (Graham GMP)	£21,611	£4,322	£25,933
2) Professional fees & internal resourcing (2%)	£853	£171	£1,023
3) VAT recovery (Design Fees)	£0	-£452	-£452
4) Non-works costs	£1,322	£264	£1,587
6) Trust Risk / Planning Contingency (incl VAT)	£1,543	£309	£1,852
7) IT and Equipment Costs (including sundries)	£161	£32	£194
Total Estimated Costs	£25,490	£4,647	£30,137

Following the detailed analysis undertaken on the GMP submitted by Graham, Edge consider the GMP sum of £21,611k to be fair and reasonable. Furthermore, and with specific reference to the level of competitiveness and overall value of local spend, Edge consider that the GMP offers value for money within the P22 framework. As such, Edge confirm that Grahams can be awarded these works.

Construction Costs & Market Testing

Edge confirm they have checked arithmetically and reviewed for errors, discrepancies and qualifications, and are free of all of the above.

The net construction cost equates to £16,957k exclusive of preliminaries, design fees, risk and Grahams gross margin. This is split between building elements (£9,786k or 57.7%) and mechanical and electrical installations (£7,172k or 42.3%). A market testing analysis is included Annex B of Edge's Cost Report (reference Appendix 4j: Main Theatres Building: Cost Advisors' Report). The key points are.

[14] The key provisions of the NEC contract are set out here - https://procure21plus.nhs.uk/wp-content/uploads/2015/11/P22-High-Level-Requirements.pdf.

- Approximately £15,771k (or 93.0% by value) of the works packages have been market tested by Grahams, which is significantly higher than the P22 suggested requirements for 80% of the GMP (by value) to be market tested.
- The remaining £1,187k (or 7.0% by value) is based upon Grahams assessed rates and allowances for missing / un-priced BoQ items, sub-contractor attendances, specification compliancy (i.e., where alternatives have been offered by the supply chain) and temporary works due to the restricted access to the working areas; Edge are satisfied that these allowances are reasonable.
- Where work package quotations have been obtained in competition; in the majority of cases the lowest compliant tender has been incorporated in to the GMP (61% by value). However, there are a number of packages in which the lowest tender has not been selected. Justification for the selection of these sub-contractors has been issued by Grahams, details of this can be found within annex C of Edge's Cost Report (reference Appendix 4j: Main Theatres Building: Cost Advisors' Report). The combined value of these packages equates to circa £2.26m.
- Edge view the justification provided above appears to be reasonable when considering that P22 promotes best value procurement and not lowest cost tendering.
- Approximately £58k (or 0.3% by value) of the works packages are to be awarded to locally based subcontractors (i.e., within a 25-mile radius of the hospital). Edge raised concern that this figure falls heavily short of any policy promoting investment within the local community.

In summary, Edge have checked the sub-contractor quotations and have no concerns with any of the rates or quantities included in the GMP. Edge have compared the rates underpinning the GMP with other schemes and they are generally in line with them.

4.8.2 New Main Theatres Building – Equipment

The Trust equipment costs associated with the preferred option, Option 1 : Do Minimum, is £161.4k excluding VAT. This is set out in Appendix 4k: Main Theatres Building: Equipment Schedule.

The Trust as part of its medical devices' equipment programme undertook a review of its existing devices. It was agreed following consultation with the clinical group that the majority of the existing medical devices would be transferred to the new Theatres Building. As a consequence, the quantum of equipment cost is significantly lower than expected. This is contained in the Main Building Transferring Group 3 Equipment List spreadsheet in Appendix 4k: Main Theatres Building: Equipment Schedule.

4.8.3 Link to PFI Treatment Centre

The new Main Theatres Building will be connected to both the main hospital building and PFI Treatment Centre to facilitate the smooth transport of patients and staff through a linked corridor.

A contract variation has been agreed by the Trust with Project Co to deliver the linked corridor. This includes a one-off capital cost of £22k and the annual increase to the Unitary Charge is £2.1k (incorporating estate facilities management and life cycle costs). These costs are at March 2021 prices.

The Trust has agreed the PFI variation with PFI Project Co. PFI Project Co has signed the variation document. However, the Trust is not able to sign as it cannot enter into a financial commitment until it has certainty that the project can go ahead. On this basis, the Trust will await FBC approval before signing the variation.

Trust Variation VO237 signed by the PFI Project Company and supporting documentation are set out in Appendix 4l: PFI Variation.

The PFI building has 14years left on the contract and will then revert back to the Trust in condition B. The Trust is retaining use of the Treatment Centre and will maintain the link to support flexible and adaptable Service provision at the Hospital as part of the long-term vision for the Hospital.

4.8.4 Early drawdown of funding

Introduction

The Trust intends to commence construction in the shortest time possible given the urgency of the RAAC panel issues affecting the area of the Hospital where the current facility is located.

The early drawdown of funding in quarter 2 2021/22 incorporates.

- Enabling Works for the reprovision of Woodpecker Lodge. This facility is at the end of its useful life and would be replaced regardless of whether the Main Theatres scheme were to progress.
- Fees for the development of the FBC.

A summary of the enabling costs and fees that form part of the early drawdown are illustrated below.

Table 4-8 Summary of Early Drawdown Costs

Cost Element	Cost (£'000)	VAT (£'000)	Gross (£'000)
Total Enabling Costs (Reference Table 4-9)	£1,592	£318	£1,910
Enabling Costs to be funded post-FBC Approval	£ (930)	£ (186)	£ (1,116)
Enabling Costs covered by Early Drawdown (a) (Ref Table 4-10)	**£662**	**£132**	**£794**

FBC Fees	Cost (£'000)	VAT (£'000)	Gross (£'000)
Total Trust FBC Advisory Fees	£292	£58	£351
Total PSCP FBC Advisory Fees paid by the Trust	£925	£185	£1,110
Total FBC Advisory Fees (b) (Ref Table 4-11	**£1,217**	**£243**	**£1,461**
Total Funding Request (a+b)	**£1,879**	**£376**	**£2,255**

The breakdown of total enabling costs and fees is shown Table 4-9 Breakdown of total enabling costs and fees

Table 4-9 Breakdown of total enabling costs and fees

Cost Element	Cost (£'000)	VAT (£'000)	Gross (£'000)
Design, Planning & Fees	£15	£3	£18
Construction	£683	£137	£819
Staff Change Modular Facility	Incl	Incl	Incl
Demolition	£70	£14	£84
Woodpecker reprovision elsewhere on Hinchingbrooke site	Incl	Incl	Incl
Fit Out	£342	£68	£411
Geotechnical Survey	-	-	-
Topographical Survey	-	-	-
IT	-	-	-
Workstations (30 workstations)	£18	£4	£21
2 x 24 port switches	£8	£2	£9
132 ports	£44	£9	£53
Cabling	£12	£2	£15
Contingency	£32	£6	£38
Sub-total	**£1,224**	**£245**	**£1,468**
Service Diversions	**£368**	**£74**	**£442**
Total Enabling Works Costs	**£1,592**	**£318**	**£1,910**

The Trust is seeking early draw down of Treasury funding to undertake the enabling works relating to reprovision of Woodpecker Lodge. The early drawdown funding requirement is for £794k including VAT. The detailed split between Woodpecker and Staff Change costs is shown at Table 4-10.

Table 4-10 The detailed split between Woodpecker and Staff Change costs

		Woodpecker			Staff Change		
Cost Element	**Gross (£'000) incl VAT**	**Cost (£'000)**	**VAT (£'000)**	**Total Incl VAT (£'000)**	**Cost (£'000)**	**VAT (£'000)**	**Total Incl VAT (£'000)**
Planning Fee	£7	£3	£1	£3	£3	£1	£4
Planning Application Fee	£3	£1	£0	£2	£2	£0	£2
Asbestos Fee*	£8	£3	£1	£4	£4	£1	£4
Construction	£819	£307	£61	£369	£375	£75	£450
Demolition	£84	£56	£11	£67	£14	£3	£17
Woodpecker reprovision elsewhere on Hinchingbrooke site	Incl	£0	£0	£0	£0	£0	£0
Fit Out	£411	£240	£48	£288	£103	£21	£123
IT							
Workstations (30 workstations)	£21	£8	£2	£9	£10	£2	£12
2 x 24 port switches	£9	£0	£0	£0	£9	£2	£11
132 ports	£53	£20	£4	£24	£24	£5	£29
Cabling	£15	£6	£1	£7	£7	£1	£8
Contingency	£38	£19	£4	£23	£13	£3	£15
Total Reprovision Costs	**£1,468**	**£662**	**£132**	**£794**	**£563**	**£113**	**£676***

*£347k relates to Elm Ward works which is not part of the Main Theatres project but has been included in the enabling works contract for reasons of economies of scale and effort.

The Trust is also seeking funding for FBC fees amounting to £1,461k including VAT. The breakdown of FBC fees is shown at Table 4-11.

Table 4-11 Breakdown of FBC fees

FBC Fees	Cost (£'000)	VAT (£'000)	Gross (£'000)
Trust FBC Advisory Fees			
BREEAM Early Credits	£39	£8	£46
Asteros Financial Advisory Support	£39	£8	£46
FBC Author	£41	£8	£50
Architect - Trust: 1:200s, RDS + Planning Drawings	£33	£7	£40
Architect - Trust: Planning Drawings for Modular	£6	£1	£7
Topographic Survey – Trust	£10	£2	£11
Geotechnical Survey – Trust	£18	£4	£22
Traffic & Transport	£27	£5	£32
Planning Pre-application and Full Planning	£45	£9	£53
Cost Consultant - Trust	£33	£7	£40
Valuation Advice	£4	£1	£4
Total Trust FBC Advisory Fees	**£292**	**£58**	**£351**
PSCP Advisory Fees paid by the Trust			
Architect	£196	£39	£235
C&S Engineer	£69	£14	£83
M&E Services Design	£178	£36	£214
Principal Designer	£2	£0	£2
Fire Engineer	£14	£3	£17
Acoustic Consultant	£10	£2	£12
Planning Consultant	£5	£1	£6
Building Control Fees	£7	£1	£9
Lift Consultant	£9	£2	£11

FBC Fees	Cost (£'000)	VAT (£'000)	Gross (£'000)
BREAMM Consultant Stage 3	£11	£2	£13
BRE Submission	£2	£0	£2
Air Tightness review	£1	£0	£1
Thermographic Survey	£2	£0	£2
Ecologist	£25	£5	£30
Landscape Architect	£4	£1	£5
Zero Carbon	£34	£7	£41
MMC Champion	£30	£6	£36
Cost Consultants/Bill of Quantities	£57	£11	£68
BIM Co-ordinator inc clash detection	£24	£5	£29
Topographical Survey	£3	£1	£4
Buried Services Survey	£6	£1	£7
CCTV Existing Drain Survey	£3	£1	£4
Elevation Survey	£3	£1	£4
Hand dig trail holes for cables	£0	£0	£0
Test Existing Electrical Service Capacity	£2	£0	£2
Asbestos Surveys	£5	£1	£6
Unknowns	£5	£1	£6
GRAHAM Stage 3 Preparation costs	£9	£2	£10
GRAHAM Stage 3 Fee	£141	£28	£169
Sub-total	£855	£171	£1,027
P22 Fee % @ 8.106%	£69	£14	£83
Total PSCP FBC Advisory Fees paid by the Trust	**£925**	**£185**	**£1,110**
Total FBC Advisory Fees	**£1,217**	**£243**	**£1,461**

4.9 New Theatres Building: Reduction of Non-utilised/ Non-Clinical Space

The Trust has reviewed the useable space within the current Main Theatre facility and the proposed design covered by this FBC.

The analysis in the table below shows that there is reduction in the ratio of non-clinical to clinical space for Main Theatres and this remains well within the Carter and NHS Long Term Plan targets for non-clinical space. The drawings show the respective non-clinical (blue) and clinical areas (orange) currently and within the new Main Theatres.

The enabling works office reprovision has not been included as this relates entirely to administrative/ back-office provision. However, as a result of agile working, the number of workstations has reduced by 11%.

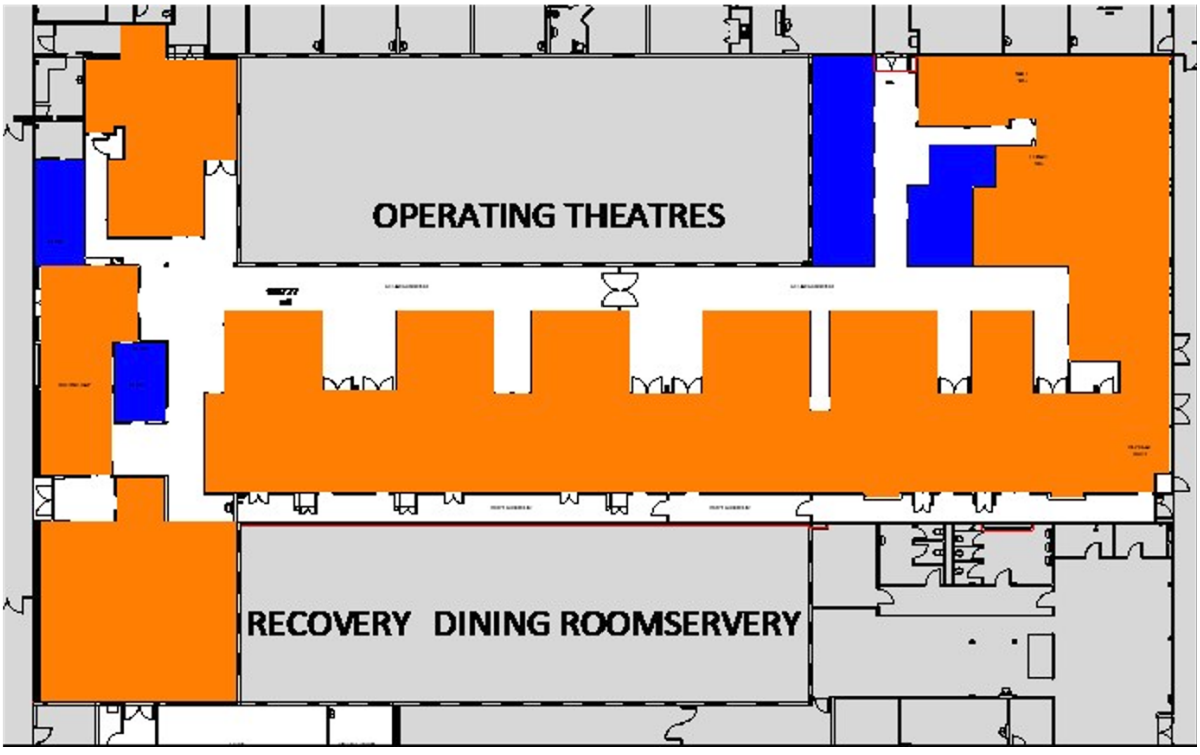
The size of Main Theatres relative either to the whole Hinchingbrooke site or the Trust as a whole is relatively small and the change in non-clinical useable area will have minimal impact on these non-clinical: clinical ratios. The Trust will, however, place significant emphasis on Phase 3 Hinchingbrooke site redevelopment to ensure the overall Hinchingbrooke non-clinical ratio is reduced and aligns with Carter and the NHS Long Term Plan targets.

Table 4-12 Main Theatres FBC - Ratio of Non-Clinical: Clinical Space

Main Theatres FBC - Ratio of Non-Clinical: Clinical Space				
Useable Space			Carter Ratio	NHS LTP Ratio
(m2)	Clinical	Non-Clinical		
Current	945	101	10.69%	
Proposed	1,557	107	6.87%	
Improvement	**612**	**6**	**35%**	**30%**

Proposed Theatre: Orange: (clinical) 1557m2, Blue: (admin) 107m2

Existing Theatre: Orange: (clinical) 945m2, Blue: (admin) 101m2



4.10 New Main Theatre Building - Modern Methods of Construction

4.10.1 Modern Methods of Construction (MMC)

Modern Methods of Construction (MMC) is a broad term, embracing a range of off-site manufacturing and on-site techniques that provide alternatives to traditional building. Bryden Wood have been working with the Murphy Phillips, architects for this project, to develop a standard platform.

The Barker 33 Cross-Industry Group stated "Modern Methods of Construction are about better products and processes. They aim to improve business efficiency, quality, customer satisfaction, environmental performance, sustainability and the predictability of delivery timescales. Modern Methods of Construction are, therefore, more broadly based than a particular focus on product. They engage people to seek improvement, through better processes, in the delivery and performance of construction."

This value-driven approach to MMC was adopted by the Project Team for the Hinchingbrooke Hospital - New Theatre Block project. Bryden Wood identified a series of key value drivers to achieve the best outcome for the client (reduced timescales, higher build quality, lower project and operational cost, less reliance on site labour, installation ease and efficiency). They collaborated with the Trust to identify a wide range of MMC opportunities across all aspects of the build and the delivery process. Bryden Wood evaluated each opportunity against the value drivers and used the outcome of this evaluation to develop a comprehensive MMC strategy that maximises the benefit of MMC to the project and the hospital.

The project MMC strategy encompasses many aspects of the project and a range of opportunities falling into the MMC categories recently proposed by the MHCLG Joint Industry Working Group on MMC namely:

- 3D primary structural system.
- 2D primary structural systems.
- Non-system components.
- Additive Manufacturing.
- Assemblies and sub-assemblies.
- Material and Product Innovations and Site Process Innovations.

The overall percentage utilisation of MMC (based on project cost) has been assessed for each of these categories (as well as an additional Briefing, Scoping and Design category) using the ProCure22 MMC Percentage Utilisation Tool which is the NHS Trust's method of recording and calculating the overall MMC Status. This is intended to ensure an MMC strategy that meets the desired targets while also remaining focused on value- finding the right approach to deliver the best outcome on this project.

The MMC assessment is set out in Appendix 4m: Main Theatres Building: Modern Methods of Construction. This demonstrates an MMC score of 71%.

The Trust submitted a response to JISC regarding the MMC score proposed and rationale for non-achievement of 100%. Prior to the OBC being completed, a paper on MMC was prepared and submitted to JISC which considered the use of volumetric construction methodologies (i.e., 100% MMC). However, these methodologies were deemed to be unsuitable due to the functionality of the building. The key elements of the analysis were as follows:

- A market assessment exercise was undertaken to assess the scope for delivery of the scheme using the volumetric route. This concluded that the location at first floor created a number of long-term flexibility issues.
- The podium requirements and locations of structural support to fit with the modules would have left a very limited space for future use below theatres.
- The costs were comparable to a traditional approach when the list of exclusions from pricing were factored in. A transfer structure was considered, but the cost for this was even higher.
- The risk of co-ordination issues between the Module co and the supplier of the associated construction works was deemed too high.

4.11 New Main Theatre Building - Final Contract

The Trust and Graham Construction are ready to sign the GMP NEC3 EC contract for the New Main Theatres Building.

4.11.1 Derogations/ Z clauses from NEC3 EC Contract

As noted in Section 4.7.1 above, the Project has adopted the NEC3 ECC contract and no project specific Z clauses have been inserted into the contract.

4.11.2 Risk allocation

A risk allocation exercise has been undertaken in accordance with the standard P22 NEC3 contract15. The allocation of risks is set out and quantified in the Project Risk Register in the Economic Case (Appendix 3d: Project Construction Quantified Risk – Planning Contingency).

4.12 Link to PFI Treatment Centre – Proj Co Contract Variation

A link corridor will be built connecting the Main Theatres Building (first floor level) to the PFI Elective Treatment Centre and is captured as a part of a contract variation to the existing PFI contract. The Trust has successfully liaised with the PFI Project Company, which is owned through a joint venture between HICL Group and Kajima Partnerships (hereafter referred to as "Project Co").

The new Mains Theatres Building will be connected to both the main hospital building and PFI Treatment Centre to facilitate the smooth transport of patients and staff through a linked corridor.

A contract variation has been agreed by the Trust with Project Co to deliver the linked corridor. This includes a one-off capital cost of £22k and the annual increase to the Unitary Charge is £2.1k (incorporating estate facilities management and life cycle costs). These costs are at March 21 prices.

The Trust has agreed the PFI variation with PFI Project Co. PFI Project Co has signed the variation document. However, the Trust is not able to sign as it cannot enter into a financial commitment until it has certainty that the project can go ahead. On this basis, the Trust will await FBC approval before signing the variation.

Trust Variation VO237 signed by PFI Project Co and supporting documentation are set out in Appendix 4l: PFI Variation.

The PFI building has 14years left on the contract and will then revert back to the Trust in condition B. The Trust is retaining use of the Treatment Centre and will maintain the link to support flexible and adaptable Service provision at the hospital as part of the long-term vision for the hospital.

4.13 Legal Report re Final Contract

4.13.1 New Main Theatre Building - Legal Report re Final Contract

Graham Construction are the Trust's Preferred Supply Chain Partner (PSCP) under P22. The Procure 22 frameworks utilises the NEC3 Engineering and Construction Contract (ECC) to support the delivery of the capital schemes delivered via the framework. The new Main Theatres Building will be delivered under this established and structured procurement approach as outlined in Section 4.7.

As stated in section 4.11.1, there are no project specific clauses.

On this basis, the Trust is confident in this contractual approach and consequently has not sought a legal report from an established legal firm.

4.13.2 Link to PFI Treatment Centre Schedule 22 PFI Contract

A link corridor will be built connecting the Main Theatres Building (first floor level) to the PFI Elective Treatment Centre and is captured as a part of a contract variation to the existing PFI contract reference Section 4.12). The Trust has agreed the PFI variation with PFI Project Co. PFI Project Co has signed the variation document. However, the Trust is not able to sign as it cannot enter into a financial commitment until it has certainty that the project can go ahead. On this basis, the Trust will await FBC approval before signing the variation.

This is small scale and straight forward in nature and the Trust did believe it warranted legal advice. The Trust has a track record of a amicable working relationship with the PFI Proj Co.

4.14 Enabling Works of Preferred Option 1: Do Minimum.

The enabling works incorporate.

- Relocation of existing buildings on the new build site including.
  - Demolition and removal of Woodpecker Lodge (administration) and Staff Change facility.
  - Removal of 51 parking space. Trust will implement its Green Travel Plan and therefore spaces will not be re-provided (reference section 1.12.8).
- Enabling incorporates the development of a new
  - Modular building for staff change and offices.

[15] The key provisions of the NEC contract are set out here - https://procure21plus.nhs.uk/wp-content/uploads/2015/11/P22-High-Level-Requirements.pdf.

- New modular stores adjacent to Elm Ward.

- Reprovision of Woodpecker office accommodation within existing facilities elsewhere on the Hinchingbrooke site, taking into account the impact of agile working.

4.14.1 Enabling Works – Procurement

Edge, the Trust's QS advisor's supported the Trust through the procurement in tandem with the Trust's Procurement Team. The Trust's cost advisor report incorporating the procurement process is set out in Appendix 4o: Enabling: Cost Advisors' Report.

The current budget for the Enabling Works is £1,469 (inc VAT) (reference Table 4-9 Breakdown of total enabling costs and fees), although £347k relates to Elm Ward works which is not part of the Main Theatres project but has been included in the enabling works contract for reasons of economies of scale and effort. The cost excluding Elm is £1,122k. Graham Construction, as the Trust's PSCP, initially provided a cost for the modular components of the above at a cost of £1m (including VAT). This significantly exceeded the budgeted construction value in the Trust's budget and was therefore discounted on the basis of value for money.

The Tender was therefore split in two to reduce the risk of supply and demand issues and the general market conditions and also demonstrated value for money.

All tenders were issued on the Trust's E-Tender Portal "Atamis" and the chosen contractor appointed using a JCT Design and Build Contract 2016 Edition.

Tender 1 was issued via the Modular Buildings Frameworks and was issued to the following 10 contractors:

- Actavo.
- Caledonian.
- Cota Plan.
- Elliott Group.
- Extraspace.
- McAvoy.
- ModuleCo.
- MTX.
- Portakabin.
- Western Building Systems.

Of the above, three tenderers which "opted in" to the mini competition, two tenders were ultimately received from MTX and Cota Plan. The scoring approach adopted for this tender was 50% quality and 50% cost.

Tender 2 - Due to the price of the Tender 1 returns, a further 5 contractors were contacted in accord with the Trusts SFI's and requested to bid based upon their experience in the healthcare market. These were as follows:

- Seville Development.
- Excel Contractors.
- Hilton Electrical.
- VM Construction.
- MTX.

Of the above, two tenders were received from MTX (for a new Modular solution) and Excel (based upon a refurbished modular solution). The scoring for this tender was 40% quality and 60% cost.

Following review of the bids the contractors' tender returns were adjusted to ensure a like for like comparison and the cost summary is as follows:

Table 4-13 – Enabling – Adjusted Tender Returns

	Cost Plan £'000	MTX £'000	Excel £'000
Demolition	*£179*	**£179**	**£70**
Substructures	*£167*	**£167**	**inc**
Shell & Core	**£596**	**£417**	**£522**
Allowance included within Employers Requirements	£0	£0	**£320**
Adjustments for Employers Requirements allowances	*£160*	*£160*	**-£160**
Fit out	**£517**	**£292**	**£342**
Elm ward & store	£315	£315	inc

	Cost Plan £'000	MTX £'000	Excel £'000
Total comparison cost £'000 (exc VAT)	£1,935	£1,531	£1,095
Total comparison cost £'000 (inc VAT)	£2,322	£1,837	£1,314

To enable a like for like comparison the following adjustments have been made:

- The inclusion of allowances in italics where a contractor has not priced an item, the highest allowance has been included from the other contractors where it has been priced.
- The allowances in the ERs have been adjusted to the Trust's affordable figure of £160k for all contractors. As Excel's figure included a higher value this adjustment is negative.
- Please note: Items highlighted in bold are actual costs provided by the contractor. The Elm Ward Works and Store are included within the main Excel price.

The price / quality result are illustrated below, and rationale outlined in Appendix 4o: Enabling: Cost Advisors' Report and illustrated below.

Table 4-14 – Enabling – Price / Quality result.

	Cost Plan	MTX	Excel
Price	28.29	42.92	60.00
Quality	37.72	18.00	26.00
Total Score	66.01	60.92	86.00

To support the quality and cost scoring, references were taken up for both MTX and Excel. Excel received positive feedback from the two trusts they had previously worked with. MTX received positive feedback from a consultant on a scheme.

On the basis of the scores in Table 4-14 and the positive references from other trusts, Excel were identified as the preferred Contractor to undertake the contract. The tender evaluation analysis was reviewed by the Woodpecker Office Reprovision Sub-Group, in the presence of a member of the Trust's Procurement Team, with a number of amendments requested to be made to the evaluation report. The Sub-Group reviewed and confirmed that the references were acceptable and that a recommendation be made to the Steering Group to appoint Excel. The recommendation to appoint Excel was ratified by the HHRP2 Steering Group on 7 July 2021.

The current budget for the Enabling Works is £1,469k (inc VAT). The above proposal from Excel including VAT comes to £1,313.9k, including the areas of additional funding, leaving circa £145k for ICT, office furniture and survey works. The Trust has therefore retained the value of £1469k within the capital cost of the project and associated FB forms.

Enabling Bids: VFM

To provide an assessment on the value for money nature of the Excel bid, Edge omitted the abnormal costs within the scheme associated with the demolition and the Elm and Store costs. This results in a scheme cost of circa £705k or £2,036/m2. From a review of the construction costs for a small office building, these are generally in the region of £2,000/m2 aligning with the costs received.

With the above benchmarking and the costs arising from a competitive tender, Edge concluded that the costs obtained are reasonable value for money.

4.14.2 Enabling Works – Planning Permission

Huntingdonshire District Council granted planning permission on 2 July 2021 for the:

- Siting of two single storey modular buildings for a temporary period of 3 years to facilitate redevelopment of main theatres block, to include staff change facilities and offices and ancillary storage of clinical equipment.

A copy of the full planning permission (Application Number: 21/00871/FUL) dated 2 July 2021 is set out in Appendix 4n: Enabling: Planning Permission.

The Trust will meet and deliver the requirements of the conditions summarised in Table 4-1.

Table 4-15 – Planning Permission Conditions – Enabling.

No.	Condition	Response
1	The development will begin before the expiration of three years from the date of this permission.	Agreed
2	The development shall be carried out in accordance with the approved plans.	Agreed

No.	Condition	Response
3	The modular buildings including access stairs shall be removed from the site within three years of the date of this permission and the site shall be restored to its former condition.	Agreed
4	The materials used in the construction of the external surfaces of the modular buildings and associated access stairs shall be as detailed within Section 7 of the accompanying Application Form received 12th April 2021.	Agreed
5	Notwithstanding the provisions of the Town and Country Planning (Use Classes) Order 1987 (as amended) or the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended), the temporary building shall not be used for purposes other than those incidental to Hinchingbrooke Hospital.	Agreed

4.14.3 Enabling - Planning Permission Community Infrastructure Levy Charge

As with the Main Theatres Building above, the Council placed a note to the planning permission in respect to a Community Infrastructure Levy (CIL) charge for the new Main Theatres Building. The Trust and Graham Construction are actively engaging with the Council with a view to agreeing an approach that means the scheme is not impacted adversely from a financial perspective. The PSCP's planning advisor has indicated that it is not common practice for healthcare developments to incur this charge.

The Trust has assumed that the one-off charge would be covered by Planning Contingency within the FB1 form and the latter into the economic and financial analysis.

4.14.4 Enabling - Schedule of accommodation

Detailed services are described in the Schedule of Accommodation in Appendix 4p: Enabling: Schedule of Accommodation. A summary of the schedule of accommodation is shown below.

Table 4-16 - Enabling - Summary Schedule of Accommodation

Enabling Works - Schedule of Accommodation (SOA) M^2		
Elm	177.5	Office Space
	27.9	Meeting Room Space
	15.7	WC
Planning Application	75.0	**Store**
Swallow Lodge	20.4	Office
	7.1	WC's
Mulberry Clinic	71.1	Office
	6.0	WC
Orchard Support Centre	125.0	Offices
Old Nursery	128.0	Offices / Breakout
	10.2	Meeting Room
	13.1	WC
Pathology	92.7	Meeting Room Space
L2/05 Offices	25.1	Offices
Staff Change / Support Accommodation	85.8	Staff Change
Planning Application	102.1	Offices
	18.7	Store
	14.6	Kitchen
	9.3	Cleaners
	17.8	WC's
	9.2	Shower facilities
	4.0	IT Hub Room
	1.5	Electrical
	82.6	Circulation / Lobby / Cavity
All Areas	1149.8	Total M2

4.14.5 Enabling Works – Design

1:50 drawings associated with the enabling works are set out in Appendix 4q: Enabling: Drawings 1:50s'.

4.14.6 Enabling Works - Infection control & Statement of Compliance (Fire safety)

The facilities being provided are of a non-clinical nature. Infection Control guidance for Infection Control for finishes for the staff change areas will be met. The facilities will meet building control and fire requirements.

4.14.7 Enabling Works – Contract

The Trust and Excel will execute a JCT Design and Build Contract for the works.

4.14.8 Enabling Works – Price

The current budget for the Enabling Works is £1,469k (inc VAT) (reference Table 4-9). The above proposal from Excel including VAT comes to £1,313.9k (reference Table 4-13), including the areas of additional funding, leaving circa £145k for any cost incurred to date and contingency for unforeseen items.

The Trust has therefore retained the value of £1469k within the capital cost of the project and associated FB forms.

4.14.9 Enabling works – MMC

The Staff Change modular facility delivers 100% MMC and therefore a MMC assessment has not been undertaken.

4.14.10 Enabling works – Final Contract

The Trust and Excel will execute a JCT Design and Build Contract for the works.

4.14.11 Enabling works – Derogations from contract

Within the JCT Design and Build Contract for the works. Derogations and project specific Z clauses under this contract. Do not apply under this contract.

4.14.12 Enabling works – Risk allocation

A risk allocation exercise has been undertaken in accordance with the standard P22 NEC3 contract[16]. The allocation of risks is set out and quantified in the Project Risk Register in the Economic Case (Appendix 3d: Project Construction Quantified Risk – Planning Contingency).

4.15 Operating Theatre Services Business Continuity Plan

The Trust has an established Operating Theatre Services Business Continuity Plan (BCP) which was recently updated and approved on 30 June 2021. This is outlined in Appendix 4r: Operating Theatres Services Business Continuity Plan.

4.16 Green Plan (incl Green Travel and Car Parking Management plans)

The Trust is developing a Board approved Green Plan (formerly Sustainable Development Management Plan) which will be completed in 2022/23. The Trust has developed a Green Plan Development Strategy which acts as a roadmap for the development of a Green Plan for the Trust. The Green Plan Development Strategy is set out in Appendix 4s: Green Plan Development Strategy.

The Trust has developed a Green Travel Plan (Appendix 4t: Green Travel Plan) and Car Parking Management Plan (Appendix 4u: Car Parking Management Plan).

Circa 51 car parking spaces will be lost through placement of this scheme. The Trust has developed an addendum to its Car Parking Management Plan to mitigate the loss of car parking spaces.

The following measures to address the reduction of 51 car parking spaces at the Hinchingbrooke site include:

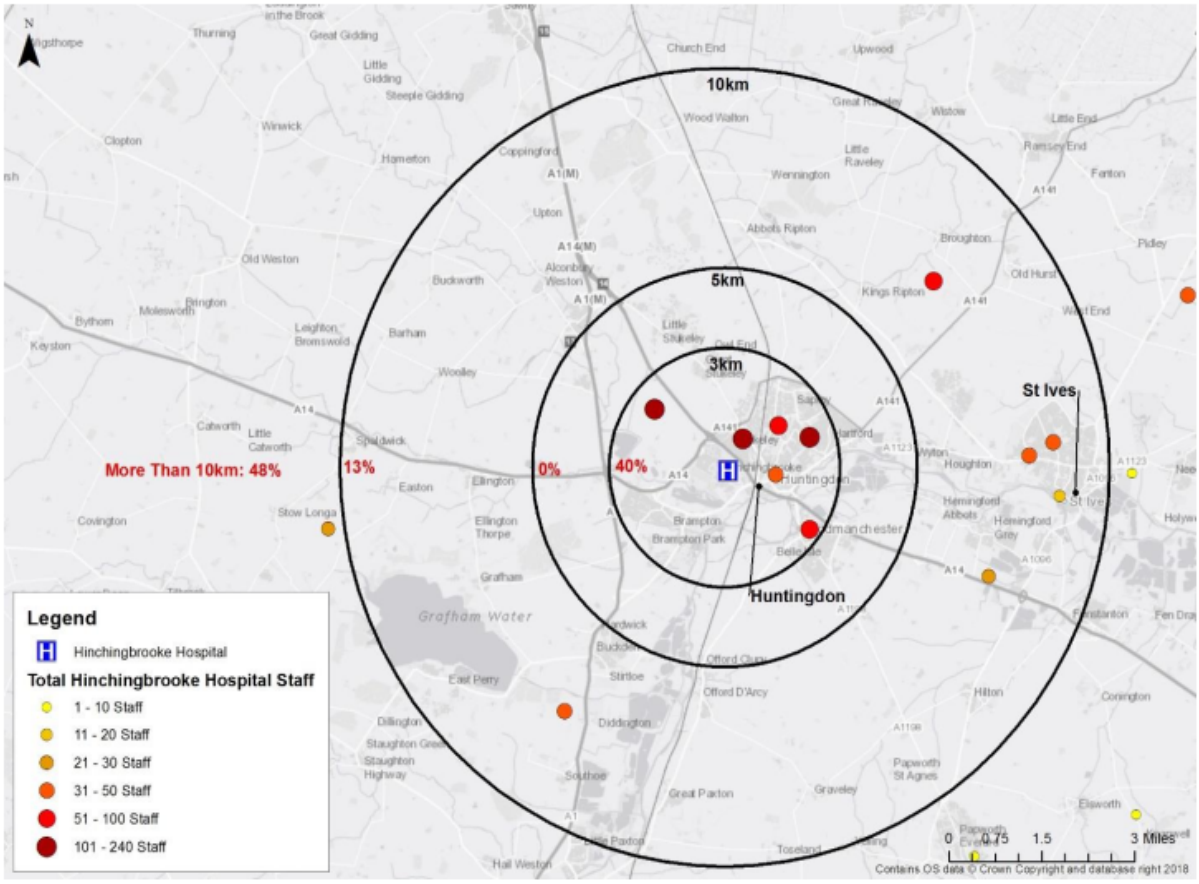
- Restricting Car Access; by introduction of 3km exclusion zones for staff. 40% of staff live within 3km of Hinchingbrooke Hospital. ANPR system to be introduced.
- Formalisation/Enforcement of Parking; by employment of management company.
- Installing a fully automated and formalised parking permit system.
- Improving Traffic Flow On-Site; by reducing roadside parking.
- Consistent Car Park Charging; by having a fair and reasonable charging structure.
- Encouragement of Car Sharing; dedicated car sharing parking, setting up car sharing hub.

[16] The key provisions of the NEC contract are set out here - https://procure21plus.nhs.uk/wp-content/uploads/2015/11/P22-High-Level-Requirements.pdf.

- Communications to staff and visitors about car usage and alternative options i.e., public transport
- Possible introduce shuttle bus for inter site travel.
- Improved travel options i.e., Cycling, Walking and public transport

The first phase of the introduction of the 3km rule has now been introduced at the Trust's PCH site for all new starters and is proposed to be introduced in Hinchingbrooke in the 3rd Quarter 2021/22. This will meet the Theatre project timescales.

Table 4-17 – Diagrammatic presentation of 3km rule



This process is being managed by the Green Travel Plan Steering Committee which is chaired by Chief People Officer (SRO for the project).

4.17 Facilities management

Apart from some specialist sub-contracts, the Trust operates an in-house hard FM service for its non-PFI estate. This approach will be extended to the new Main Theatres facility. The cleaning service is outsourced to Mitie.

As part of the new Main Theatres development, in advance of handover, a comprehensive asset schedule will be issued to estates to include the recommended maintenance intervals as part of the planned estates maintenance systems.

Estates will then ensure that maintenance is undertaken in accordance with the recommendations.

All facility needs will be tabled, plans setup and KPIs monitored. The Trust's Estates and Facilities Department will also be issued with full systems training and familiarisation.

Kier undertakes soft and hard FM provision within the PFI building. Section 4.8.3 details the breakthrough to the PFI.

4.18 Accounting Treatment

The newly constructed theatres of Hinchingbrooke Hospital will be owned by and sit on the asset register of North West Anglia NHS Foundation Trust. There are no further asset ownership considerations for the Trust.

This is detailed in Section 5.13 of the Financial Case.

There is no acquisition or disposal of land required for this project.

5 Financial Case

5.1 Introduction

The Financial case demonstrates that the Preferred Option, Option 1 Do Minimum: 7 Theatres / Shell Space (Potential Non-Clinical Use) will deliver an affordable and fundable project.

This case presents the capital, revenue and funding requirement for the creation of a new Main Theatres facility and impact over the short term (within the period covered by the 5-year forecast) on the Trust illustrated in the following financial statements.

- Incremental Statement of Comprehensive Income.
- Incremental Statement of Cashflows.
- Incremental Statement of Financial Position.
- Trust-wide Statement of Comprehensive Income.
- Specific Source and Application of Funds statement; and
- CDEL.

The capital and funding requirement has increased since the approved OBC, but still remains within affordable parameters. The project's capital cost is £30,136k (including VAT), an increase of 9.8% since OBC. Wave 4 capital funding of £22,768k will be supplemented by £7,368k ICS capital – sourced via an emergency capital application. ICS support for the project is set out in Appendix 2d: Letter of Commissioner & ICS support.

A peak revenue cost pressure of c.£1,400k p.a. (at 2024/25) generated, in the main from increased capital charges, will be met through an increase to Trust CIPs. This is a reduction from a £2,400k p.a. affordability gap reported at OBC.

FB forms have been completed by the Trust's external cost consultants and are inclusive of risk/contingency, optimism bias and inflation. These assumptions are defined in this FBC.

The Trust will not require additional workforce (WTE) to deliver the projected demand associated with this project over the next 5 years. This is a key principle underpinning the revenue affordability and financial statements in this case.

5.2 North West Anglia NHS Foundation Trust Historic Financial Performance

The Trust delivered the Control Total and reported adjusted financial performance of a small surplus in each year. The position as reported in the audited accounts in each of the last two financial years is shown below in the Statement of Comprehensive Income (SOCI) and Statement of Financial Position (SOFP).

Table 5-1 Consolidated Statement of Comprehensive Income – Year Ended 31 March 2021 & 31 March 2020

Consolidated Statement of Comprehensive Income		
Year ended	**31-Mar-21**	**31-Mar-20**
	£'000	**£'000**
Operating income from patient care activities	502,153	429,272
Other operating income	81,135	92,141
Operating expenses	(563,009)	(500,323)
OPERATING SURPLUS / (DEFICIT)	**20,279**	**21,089**
FINANCE COSTS		
Finance income	7	126
Finance expense	(18,838)	(20,678)
PDC dividend expense	(3,573)	
NET FINANCE COSTS	**(22,404)**	**(20,552)**
Other gains/(losses)	(30)	(96)
SURPLUS/(DEFICIT) FOR THE YEAR	**(2,155)**	**442**
Other comprehensive income		
Impairments	(15,906)	(4,745)
Revaluations	24,231	861
TOTAL COMPREHENSIVE INCOME / (EXPENSE) FOR THE PERIOD	**(6,170)**	**(3,442)**
Adjusted finance performance (control total basis)		

Consolidated Statement of Comprehensive Income		
Year ended	**31-Mar-21**	**31-Mar-20**
	£'000	**£'000**
Surplus / (deficit) for the period	**(2,155)**	**442**
Remove net impairments not scoring to the Departmental Expenditure Limit	3,533	70
Remove I&E impact of capital grants and donations	(728)	194
Remove net impact of DHSC centrally procured inventories	(571)	
Remove 18-19 post audit PSF reallocation (2019/20 only)		(656)
Adjusted financial performance surplus / (deficit) - On a Control Total basis.	**79**	**50**

Table 5-2 Statement of Financial Position – Year Ended 31 March 2021 & 31 March 2020

Statement of Financial Position		
As at	**31-Mar-21**	**31-Mar-20**
	£'000	**£'000**
NON-CURRENT ASSETS		
Property, plant and equipment	478,458	454,082
Receivables	39,117	39,795
TOTAL NON-CURRENT ASSETS	**517,575**	**493,877**
CURRENT ASSETS		
Inventories	6,557	6,031
Receivables	19,890	39,141
Cash and cash equivalents	76,705	33,083
Non-current assets for sale and assets in disposal groups	1,725	407
TOTAL CURRENT ASSETS	**104,877**	**78,662**
CURRENT LIABILITIES		
Trade and other payables	(60,479)	(40,195)
Borrowings	(11,892)	(280,633)
Provisions	(3,487)	(703)
Other liabilities	(5,175)	(3,222)
TOTAL CURRENT LIABILITIES	**(81,033)**	**(324,753)**
TOTAL ASSETS LESS CURRENT LIABILITIES	**541,419**	**247,786**
NON-CURRENT LIABILITIES		
Trade and other payables	(124)	(119)
Borrowings	(318,132)	(330,025)
Provisions	(2,087)	(2,070)
Other liabilities	(333)	(413)
TOTAL NON-CURRENT LIABILITIES	**(320,676)**	**(332,627)**
TOTAL ASSETS EMPLOYED	**220,743**	**(84,841)**
FINANCED BY		
Public dividend capital	602,264	302,850
Revaluation reserve	92,889	84,564
Income and expenditure reserve	(474,410)	(472,255)
TOTAL TAXPAYERS' EQUITY	**220,743**	**(84,841)**

5.2.1 2020/21: Financial Performance Overview

In both 2019/20 and 2020/21 the Trust reported an adjusted financial performance surplus of less than £100k, thus meeting the control total in each year. This was underpinned by the financial framework introduced by NHSEI in response to the COVID-19 pandemic.

The financial framework for 2020/21 was significantly different to previous years due to the COVID-19 pandemic and has been split into two parts.

In the first part of the year, NHSEI created a financial model that was broadly based on costs and income for months 8-10 of the 2019/20 financial year. This analysis then identified the level of additional income that each provider would need to be funded in order to break even at 2019/20 levels when factoring in inflation and changes in circumstance.

- Block Clinical Income - based on the NHS income received in 2019/20 (plus inflation)
- A top up to this income - calculated to fund the 2019/20 deficit.
- A 'true up' value uplift - calculated each month to fund the difference between the actual provider position and a break-even position.

For the second half of the year, the True up funding was replaced by 'Integrated Care System financial envelopes' for COVID-19 funding and to pay for new services and changes in demand. The national expectation was that this would be used to ensure all ICSs and partner organisations were able to break even. All partners in the Cambridgeshire and Peterborough ICS including North West Anglia met this requirement. Although there was no formal minimal requirement for the CIP programme there was a national expectation of breaking even, both as a Trust and a system. To achieve this requirement and to ensure the Trust was starting to have a renewed focus on delivering efficiencies the half 2 plan included CIPs of £3.7m, representing 1,3% of H2 expenditure.

During the year the NHS transacted a debt to equity swap, moving the Trust from a negative to positive equity position. The net cost pressure of £1.1m was adjusted within the Control total released prior to the beginning of the year (subsequently removed based on the new funding framework) and funded through the revised funding framework.

5.2.2 2019/20: Financial Performance Overview

In 2019/20 the Trust recorded an adjusted surplus of less than £100k, an improvement compared to a (£46.5m) deficit in 2018/19. This includes recognition of provider incentive funding amounting to £35.9m in 2019/20 as a consequence of the Trust meeting the control total set by NHS Improvement. The Statement of Financial Position as at 31 March 2020 shows a cumulative deficit (i.e., negative income and expenditure reserve) of £472.2m

5.2.3 CIP Programme and Performance

Generation of CIPs

The Trust has well established cost improvement programme arrangements to support the development, monitoring and reporting of the programme from scheme level through to Finance and Digital Committee and to the Trust Board.

The CIP Programme Management Office, sitting within the Finance Department, provides a dedicated resource to drive the management and monitoring of the Cost Improvement Programme, and uses sources such as the Model Hospital and GIRFT to identify opportunities for efficiency gains and works along the Divisions to establish robust schemes of cost improvement linked with performance and service improvements.

The Finance Team attend meetings with Divisions commencing in September to promote early identification of schemes for the coming financial year, work up project briefs and calculations of values to be delivered against schemes.

During 2021 the Trust is consolidating the development, management and monitoring of the CIP programme. There will be an increased focus on benefits realisation at the inception of projects and the use of trust-wide project management software will ensure that this is applied consistently. The data will be updated on a monthly basis and the reporting forms part of the accountability framework being used with divisions to ensure delivery of plans across quality, finance, activity and performance. This will ensure that any risks and issues in delivery are highlighted early and have executive scrutiny to support the development of mitigations as soon as issues arise. Additionally, there will be an increased focus on educating staff on continuous improvement methodologies, which although started prior to the pandemic had to be delayed due to operational priorities. This will include increased involvement of the PMO in Trust projects. These changes provide additional assurance over the Trust's ability to deliver efficiencies.

Past Performance Against CIP Targets

2020/21 Financial Year

The 2020/21 CIP target for the Trust was set at £3.71m [1.3% of H2 expenditure]. The Trust delivered cost improvements of £3.63m. The Trust target and delivered CIP was lower in 20/21 due to delivery only taking place in the last 6 months of the year, and the impact of the operational impact of COVID-19.

Table 5-3 2020/21 CIP Performance

Division	CIP Target £000	Delivered Recurrent £000	Non-Recurrent £000
EMED	980	1,327	-
Facilities	796	676	-

Division	CIP Target £000	Delivered Recurrent £000	Non-Recurrent £000
FISS	489	254	-
Surgery	857	612	-
Corporate	590	764	-
3,7143,633-Total	**3,712**	**3,633**	**-**

2019/20: Financial Year

The 2019/20 CIP target for the Trust was set at £18.1m. The Trust delivered cost improvements of £18.0m. The Trust was on target to deliver the full value by year end. However, the under delivery of £128k was due to the effects in month 12 of COVID-19.

Table 5-4 2019/20 CIP Performance

Division	CIP Target £000	Recurrent £000	Non-Recurrent £000
EMED	2,100	1,097	119
Facilities	900	259	1,029
FISS	3,000	2,033	817
Surgery	2,295	1,284	64
Corporate	685	801	172
Cross Cutting	9,118	10,295	-
Total	**18,098**	**15,769**	**2,201**

Current Year CIP Programme

The Board approved 2021/22 plan includes the delivery of a £10.1m CIP programme, representing a 1.8% CIP target. The Trust has currently identified schemes totalling £7.6m and Finance PMO is working closely with the Divisions and Transformation/Service Improvement to capture all of the benefits of the current schemes. The Trust has also introduced a new software package to support the monitoring of programme/project performance with a dedicated areas for capturing cost improvements and other benefits.

High level information about the funding framework for H2 has been announced, however the details are expected to follow. The Trust and ICS are in the process of reviewing plans in light of the changes, which is likely to increase the CIP ask.

5.2.4 Current Year Financial Performance

The financial framework for H1 of 2021/22 has followed a similar model to 2020/21 with specific allocations for providers and ICS funding allocations. In addition to these two sources of income there is a national Elective Recovery Fund which allows Trust's to earn additional funding for achieving elective activity targets above national baselines (calculated as proportions of 2019/20 activity levels).

The information below represents the financial performance as at 30 June 2021.

Table 5-5 2021/22 NWAFT Financial Performance months 1 – 3

	Month 1-3 Plan £000	Month 1-3 Actual £000	Month 1-3 Variance £000
Operating income from patient care activities	129,101	139,667	10,566
Other operating income	16,429	7,310	(9,119)
Employee expenses	(87,426)	(82,895)	4,531
Operating expenses excluding employee expenses	(51,978)	(57,804)	(5,826)
OPERATING SURPLUS / (DEFICIT)	**6,126**	**6,279**	**153**
FINANCE COSTS			
Finance income	9	0	(9)
Finance expense	(4,881)	(4,984)	(103)
PDC dividends payable/refundable	(876)	(875)	1
NET FINANCE COSTS	**(5,748)**	**(5,859)**	**(111)**

	Month 1-3 Plan £000	Month 1-3 Actual £000	Month 1-3 Variance £000
Other gains/(losses) including disposal of assets	0	0	0
Share of profit/ (loss) of associates/ joint ventures	0	0	0
Gains/(losses) from transfers by absorption	0	0	0
Movements in fair value of investments, investment property and financial liabilities	0	0	0
Corporation tax expense	0	0	0
SURPLUS/(DEFICIT) FOR THE PERIOD/YEAR	**378**	**420**	**42**
Remove capital donations/grant impact	84	**(18)**	**(102)**
Adjusted financial performance surplus/(deficit)	**462**	**402**	**(60)**

The Trust's year to date performance is broadly in line with the month 1-3 plan set out above. For H1, the Trust anticipates meeting the national funding requirement generating a small £1m adjusted surplus subject to delivery of the activity plan and therefore attainment of the Elective Recovery Fund (ERF). It is noted receipt of ERF will be assessed on an ICS basis.

The Trust's plan for the first half of the 2021/22 financial year is set out in the table below.

Table 5-6 2021/22 NWAFT Financial Plan months 1 – 6

	Plan Month 1 £000	Plan Month 2 £000	Plan Month 3 £000	Plan Month 4 £000	Plan Month 5 £000	Plan Month 6 £000	H1 Plan 2021/22 £000
Operating income from patient care activities	38,178	38,178	52,745	45,534	43,633	43,7892	**260,050**
Other operating income	10,370	10,368	(4,308)	5,477	5,478	5,477	**32,861**
Employee expenses	(29,142)	(29,142)	(29,142)	(29,482)	(29,483)	(29,483)	**(175,874)**
Operating expenses excluding employee expenses	(17,299)	(17,320)	(17,359)	(17,500)	(17,543)	(17,686)	**(104,707)**
Operating Surplus/Deficit)	**2,107**	**2,084**	**1,936**	**2,029**	**2,085**	**2,090**	**12,330**
Finance Costs							
Finance income	3	3	3	3	3	3	**18**
Finance expense	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	**(9,762)**
PDC dividends payable/refundable	(292)	(292)	(292)	(292)	(292)	(292)	**(1,752)**
Net Finance Costs	**(1,916)**	**(1,916)**	**(1,916)**	**(1,916)**	**(1,916)**	**(1,916)**	**(11,496)**
Other gains/(losses) including disposal of assets	0	0	0	0	0	0	**0**
Surplus/(Deficit) for the Period/Year	**191**	**168**	**20**	**113**	**169**	**174**	**834**
Remove capital donations/grant impact	28	28	28	28	28	28	168

	Plan Month 1 £000	Plan Month 2 £000	Plan Month 3 £000	Plan Month 4 £000	Plan Month 5 £000	Plan Month 6 £000	H1 Plan 2021/22 £000
System envelope planning adjustment	0	0	0	0	0	(2)	(2)
Adjusted financial performance surplus/(deficit)	**219**	**196**	**48**	**141**	**197**	**200**	**1,000**

The NHS financial framework measures Trusts against financial performance excluding the impact of gains on disposals, therefore the Trust has submitted a plan on this basis of a £1m surplus for the first six months of the year. Although, due to the increased importance placed on System performance the ICS allocations will continue to be monitored jointly with system partners.

5.2.5 5-year forecast

The Trust has developed a 5 Year forecast based on the following set of assumptions.

Table 5-7: 5-year Forecast Planning Assumptions

	2022/23	2023/24	2024/25	2025/26
Cost Inflation - Pay	0.8%	0.8%	0.8%	0.8%
Cost inflation - Drugs	0.3%	0.3%	0.3%	0.3%
Cost Inflation - Capital	1.9%	1.9%	1.9%	1.9%
Cost Inflation - Other	0.9%	0.9%	0.9%	0.9%
Demographic growth	3.0%	3.0%	3.0%	3.0%
CIP	-1.8%	-1.8%	-1.8%	-1.8%

The indicative funding framework was released in July 2021 and both the Trust and the ICS are working through the impact of this. The Trust, as part of the wider ICS, anticipates meeting the anticipated breakeven requirement for 2021/22 through a combination of waste reduction and reduction of COVID-19 costs, noting that some of the changes through COVID-19 will have lasting financial implications, including capital charges on additional equipment, increased cleaning regulations and IPC requirements within the hospital.

As the system is working through the development of a medium term financial plan over the coming months the approach within this financial case has been to update the BAU model previously shared in the OBC for the most recent economic assumptions released by NHS/I as part of the 2021/22 H1 funding framework.

Table 5-8: General Planning Assumptions

Area	Assumption
Income	Due to the uncertainty of funding in future years there have been no additional assumptions made about the funding framework, above the 3.5% funding reduction announced for 2021/22 H2.
Capital	The capital programme for future years is assumed to be more closely aligned to the 2021/22 CDEL level, although in 2022/23 an additional allocation has been assumed for RAAC in lines with discussions with NHSE/I Estates colleagues.
CIP	Remain 1.2% above inflation as per LTP
Inflation	Costs increase with inflation, this has been modelled using NHSEI economic assumptions released as part of the 2021/22 planning guidance
COVID-19	Outside of envelope COVID-19 costs continue to be funded as currently, with no allowance for PPE costs, mass vaccination or testing
Service changes	No specific step change assumed for any service transfers or reconfigurations

The 5-year forecast SOCI, SOFP and SOCF are shown in Table 5-9 to Table 5-11 below.

Table 5-9 Statement of Comprehensive Income – 5-Year Forecast

	2020/21 £000 Actual	2021/22 £000 Forecast	2022/23 £000 Forecast	2023/24 £000 Forecast	2024/25 £000 Forecast	2025/26 £000 Forecast
Operating income from patient care activities	502,153	513,717	509,872	512,421	514,983	517,558
Other operating income	81,135	65,723	66,053	66,383	66,715	67,048
Operating expenses	(563,131)	(553,687)	(558,399)	(570,987)	(582,958)	(595,174)
Operating surplus/(deficit) from continuing operations	**20,158**	**25,753**	**17,526**	**7,817**	**(1,260)**	**(10,568)**
Finance income	7	36	36	36	36	36
Finance expenses	(18,840)	(21,205)	(20,906)	(20,601)	(20,290)	(19,973)
PDC dividend expense	(3,449)	(4,926)	(8,340)	(8,866)	(8,851)	(8,319)
Net finance costs	**(22,283)**	**(26,095)**	**(29,210)**	**(29,431)**	**(29,105)**	**(28,256)**
Other losses	(30)	-	-	-	-	-
Surplus / (deficit) for the year from continuing operations	**(2,155)**	**(342)**	**(11,684)**	**(21,614)**	**(30,365)**	**(38,824)**
Surplus / (deficit) for the year	**(2,155)**	**(342)**	**(11,684)**	**(21,614)**	**(30,365)**	**(38,824)**
Other comprehensive income	-	-	-	-	-	-
Will not be reclassified to income and expenditure:						
Impairments	(15,906)	-	-	-	-	-
Revaluations	24,231	-	-	-	-	-
Total comprehensive expense for the period	**6,170**	**-**	**-**	**-**	**-**	**-**
Memorandum / Adjusted financial performance (control total basis):						
Surplus / (deficit) for the period	(2,155)	(342)	(11,684)	(21,614)	(30,365)	(38,824)
Remove net impairments not scoring to the Departmental expenditure limit	3,533	-	-	-	-	-
Remove I&E impact of capital grants and donations	(728)	366	373	380	387	395
Remove net impact of DHSC centrally procured inventories	(571)	-	-	-	-	-
Remove 2018/19 post audit PSF reallocation (2019/20 only)	-	-	-	-	-	-
Adjusted financial performance surplus / (deficit)	**79**	**24**	**(11,311)**	**(21,234)**	**(29,978)**	**(38,429)**

Table 5-10 Statement of Statement of Financial Position (SOFP) – 5 Year Forecast

	31 Mar 21 £000 Actual	31 Mar 22 £000 Forecast	31 Mar 23 £000 Forecast	31 Mar 24 £000 Forecast	31 Mar 25 £000 Forecast	31 Mar 26 £000 Forecast
Non-current assets						
Property, plant and equipment	477,481	475,496	481,067	466,643	451,407	435,346
Receivables	39,117	39,117	39,117	39,117	39,117	39,117
Total non-current assets	**516,598**	**514,613**	**520,184**	**505,760**	**490,524**	**474,463**
Current assets						

	31 Mar 21 £000 Actual	31 Mar 22 £000 Forecast	31 Mar 23 £000 Forecast	31 Mar 24 £000 Forecast	31 Mar 25 £000 Forecast	31 Mar 26 £000 Forecast
Inventories	6,557	6,557	6,577	6,597	6,618	6,638
Receivables	19,891	36,888	37,072	37,079	37,444	37,631
Non-current assets for sale and assets in disposal groups	1,725	1,725	1,725	1,725	1,725	1,725
Cash and cash equivalents	76,705	62,474	73,864	76,889	72,759	60,918
Total current assets	**104,877**	**107,644**	**119,239**	**122,291**	**118,546**	**106,913**
Current liabilities						
Trade and other payables	(60,479)	(43,146)	(44,037)	(44,479)	(45,876)	(46,827)
Borrowings	(11,892)	(11,517)	(11,737)	(11,961)	(12,189)	(12,189)
Provisions	(3,487)	(3,487)	(3,487)	(3,487)	(3,487)	(3,487)
Other liabilities	(5,175)	(5,175)	(5,175)	(5,175)	(5,175)	(5,175)
Total current liabilities	**(81,033)**	**(63,325)**	**(64,436)**	**(65,102)**	**(66,727)**	**(67,678)**
Total assets less current liabilities	**540,443**	**558,932**	**574,987**	**562,949**	**542,343**	**513,698**
Non-current liabilities						
Trade and other payables	(124)	(124)	(124)	(124)	(124)	(124)
Borrowings	(318,132)	(313,944)	(309,073)	(304,109)	(299,050)	(294,127)
Provisions	(2,087)	(2,087)	(2,087)	(2,087)	(2,087)	(2,087)
Other liabilities	(333)	(333)	(333)	(333)	(333)	(333)
Total non-current liabilities	**(320,676)**	**(316,488)**	**(311,617)**	**(306,653)**	**(301,594)**	**(296,671)**
Total assets employed	**219,766**	**242,444**	**263,371**	**256,296**	**240,749**	**217,027**
Financed by						
Public dividend capital	601,286	624,306	656,918	671,457	686,275	701,376
Revaluation reserve	92,889	92,889	92,889	92,889	92,889	92,889
Income and expenditure reserve	(474,410)	(474,751)	(486,436)	(508,050)	(538,415)	(577,238)
Total taxpayers' equity	**219,766**	**242,444**	**236,371**	**256,296**	**240,749**	**217,027**

Table 5-11 Statement of Cashflows – 5 Year Forecast

	2020/21 £000	2021/22 £000 Forecast	2022/23 £000 Forecast	2023/24 £000 Forecast	2024/25 £000 Forecast	2025/26 £000 Forecast
Cash flows from operating activities						
Operating surplus / (deficit)	20,281	25,754	17,525	7,817	(1,261)	(10,568)
Non-cash income and expense:						
Depreciation and amortisation	21,180	25,005	27,040	28,964	30,053	31,162
Net impairments	3,533	-	-	-	-	-
Income recognised in respect of capital donations	(989)	-	-	-	-	-
(Increase) / decrease in receivables and other assets	19,992	(16,997)	(184)	(7)	(365)	(187)
Increase in inventories	(526)	-	(20)	(20)	(20)	(21)
Increase in payables and other liabilities	23,022	(17,333)	890	442	1,398	950
Increase / (decrease) in provisions	2,801	-	-	-	-	-
Other movements in operating cash flows	-	-	-	-	-	-
Net cash flows from operating activities	**89,294**	**16,429**	**45,251**	**37,196**	**29,805**	**21,336**
Cash flows from investing activities						
Interest received	7	36	36	36	36	36

	2020/21 £000	2021/22 £000 Forecast	2022/23 £000 Forecast	2023/24 £000 Forecast	2024/25 £000 Forecast	2025/26 £000 Forecast
Purchase of PPE and investment property	(41,280)	(22,043)	(32,611)	(14,540)	(14,818)	(15,101)
Sales of PPE and investment property	-	-	-	-	-	-
Receipt of cash donations to purchase assets	-	-	-	-	-	-
Net cash flows used in investing activities	**(41,273)**	**(22,007)**	**(32,575)**	**(14,504)**	**(14,782)**	**(15,065)**
Cash flows from financing activities						
Public dividend capital received	299,414	22,043	32,611	14,540	14,818	15,101
Movement on loans from DHSC	(268,321)	-	-	-	-	-
Movement on other loans	-	-	-	-	-	-
Capital element of finance lease rental payments	(622)	-	-	-	-	-
Capital element of PFI, LIFT and other service concession payments	(10,958)	(4,564)	(4,651)	(4,740)	(4,831)	(4,923)
Interest on loans	(826)	(75)	(75)	(75)	(75)	(75)
Interest paid on finance lease liabilities	(52)	-	-	-	-	-
Interest paid on PFI, LIFT and other service concession obligations	(18,694)	(21,130)	(20,831)	(20,526)	(20,215)	(19,898)
PDC dividend (paid)/refunded	(4,342)	(4,926)	(8,340)	(8,866)	(8,851)	(8,319)
Cash flows used in other financing activities	1	-	-	-	-	-
Net cash flows from financing activities	**(4,399)**	**(8,652)**	**(1,286)**	**(19,667)**	**(19,154)**	**(18,114)**
Increase in cash and cash equivalents	**43,622**	**(14,231)**	**11,390**	**3,025**	**(4,130)**	**(11,841)**
Cash and cash equivalents at 1 April - brought forward	**33,083**	**76,705**	**62,474**	**73,864**	**76,889**	**72,759**
Cash and cash equivalents at 31 March	**76,705**	**62,474**	**73,864**	**76,889**	**72,759**	**60,918**

5.3 Capital affordability

5.3.1 FB Forms

Table 5-12 sets out the capital costs associated with the Preferred Option and movement between the approved OBC and FBC.

Table 5-12 Capital Costs – Preferred Option

	Approved OBC £000	FBC £000	Net Change £000
Departmental Costs	10,499.1	15,076.0	4,576.9
On Costs	5,821.0	5,653.4	(167.6)
Works Cost Total	**16,320.1**	**20,729.4**	**4,409.3**
Provisional location adjustment (if applicable)	-489.6	-621.9	(132.3)
Sub Total	**15,830.5**	**20,107.5**	**4,277.0**
Fees	1,820.5	2,355.7	535.2
Non-Works Costs	51.5	1,319.9	1,268.4
Equipment Costs	150.0	161.4	11.4
OBC Planning Contingency (10%)	1,583.0		(383.0)

	Approved OBC £000	FBC £000	Net Change £000
FBC Planning Contingency (5.97%)		1,200.0	
Total	**19,435.5**	**25,144.5**	**5,709.0**
OBC Optimism Bias (6.8%)	1,321.6		(959.5)
FBC Optimism Bias (1.44%)		362.1	
Sub Total	**20,757.1**	**25,506.6**	**4,749.5**
OBC Inflation adjustment (to mid-point of construction)	2,411.5	-	(2,411.5)
Total	**23,168.6**	**25,506.6**	**2,338.0**
VAT	4,269.6	4,630.2	360.6
Total (including VAT)	**27,438.2**	**30,136.8**	**2,698.6**
% Increase			**9.8%**

5.3.2 Design development and construction costs

The costs cover the following development scope:

- New build development of 7 theatres (GIFA 2,542m^2).
- New build ground floor shell space (GIFA 2,565 m^2).
- Plant room (GIFA 318m^2).
- Lifts.
- Drainage.
- Distribution roads and footpaths.
- Landscaping.
- Site clearance works.
- Utilities connections.
- External PV structure on the roof.

5.3.3 Sources and Uses

The sources and uses of the capital related project costs are outlined in **Table 5-13** below.

Table 5-13 Sources and Uses of Funds – Preferred Option

Sources	£000	Uses	£000
Wave 4 funding	22,768.3	Project Capital Costs	30,136.8
ICS Capital sourced through Emergency Loan	7,368.5		
Total	**30,136.8**		**30,136.8**

As set out in the table above, the Trust will supplement the Wave 4 capital funding received for the project, with funds bridged from ICS capital sourced via Emergency Loan applications. The Trust has already submitted its applications and details of this can be found at Appendix 5a: Emergency Loan Applications.

5.3.4 Movement in Capital Costs

Table 5-12 indicates a total movement in capital costs of £2,338k (before VAT) or £2,698k after VAT, an increase of 9.8% since OBC. In the commentary below we set out the line-by-line rationale for any changes, prior to VAT.

Line 1: Departmental Costs. Total movement = £4,577k, with this being due to three contributory factors:

Cost of 'shell space' now shown in line 1 instead of line 2 (On-Costs) = £3,563k

Increase in GIFA (theatres and ground floor) of 133m^2 = £324k

An increase in PUBSEC indices[17] (from 250 to 262) = £690k

Line 2: On Costs: Total movement = £167k [reduction], with this being due to four contributory factors

Cost of 'shell space' now shown in line 1 instead of line 2 (On-Costs) = (£3,563k)

Increase in GIFA (second floor) of 29m^2 = £55k

An increase in PUBSEC indices (from 250 to 262) = £259k

[17] The OBC was based upon a PUBSEC reporting level of 250 at line 10, whereas as the FBC is based upon tender prices which includes future inflation based upon the current programme milestones (i.e., FBC approval Q4 2021).

Adjustment to on costs and site abnormals as per Graham GMP (including allocation of construction inflation @ £400k and market price inflation @ £1.3m) = £3,082k

Line 3: Work Cost: This is a total of lines 1 and 2.

Line 4: Location adjustment: Total movement £132k [reduction].

This is a mathematical movement only: with 3% applied to a higher Works Cost results in a higher location adjustment.

Line 5: This is a sub-Total of lines 3 and 4.

Line 6 Fees. Total movement = £535k. FBC fees have been updated since OBC, with the movement since OBC being partly due to reallocation of BREEAM allowance and additional surveys to de-risk the scheme. There is now an agreed fee split between:

Graham construction: £1,502k and

Those procured direct by the Trust: £853k

Line 7: Non-Works costs. Total movement = £1,268k with this being due to four contributory factors

The inclusion of enabling works, including service diversions = £360k [not included in OBC]

Demolitions = £75k [not included in OBC]

Modular block decant = £860k [not included in OBC]

Revised planning fee allowance = £27k [reduction]

Line 8: Equipment Costs. Total movement = £10k

Uplift from PUBSEC 250 to PUBSEC 269 (FBC approval)

Line 9: Planning Contingency. Total movement = £383k [reduction]

OBC allowance of 10% now replaced with priced risk register.

Line 11: Optimism Bias. Total movement = £959k [reduction]

Risk mitigations implemented during period of OBC submission and FBC development (6.8% at OBC reduced to 1.44% at FBC)

Line 12: Inflation. Total movement = £2,411k [reduction]

Inflation now included within individual cost lines (where applicable)

5.3.5 Fees

The fees associated with the project include the following.

Table 5-14 Fees

PSCP Fees	£000	Trust Fees	£000
Architect	591.7	Business Case authoring/ advisory	464.4
Structural Engineer	125.0	Architect – planning drawings	38.7
Mechanical Engineer	398.1	Quantity Surveyor	86.9
Electrical Engineer	Inc above	BREEAM early credits	38.6
Quantity Surveyor	57.1	Surveys	54.4
Project Management	Inc in preliminaries	Planning, Pre application, Full Planning	44.5
Health and Safety Advisory	5.3	Impairment Surveys	3.5
Surveys and Secondary Consultants	325.7	Air Testing	30.0
		Medical Gas Engineer, Fire Safety and Water	65.7
		PFI fees	26.0
Total	**1,502.9**	**Total**	**852.7**
Grand Total Fees			**2,355.7**

The above fees (excluding VAT) have been included in FB forms and will be capitalised as part of the project. PSCP fees are included in the GMP but itemised separately within the FB forms.

5.3.6 Non Works Costs

The table, below, sets out the breakdown of non-works costs. These have been included in FB forms and are exclusive of VAT.

Table 5-15 Non works

Non-Works Costs	£000
Isolations/Commissioning	24.9
Enabling Works	435.0
Relocation of displaced departments	860.0
Total (excluding VAT)	**1,319.9**

5.3.7 Equipment costs

Existing equipment will transfer on the basis that new theatres are replacing existing theatres on a like for like basis. The Trust has also prepared an equipment schedule to meet a need for isolated new equipment and I.T infrastructure.

5.3.8 Planning contingency

A planning contingency of £1,200k has been included reflecting a full quantified risk register developed by the Trust's cost consultants and following on from negotiations with the PSCP. A copy of the Project Construction Risk Register can be found at Appendix 3d: Project Construction Quantified Risk – Planning Contingency.

5.3.9 Optimism Bias

As the project is now at the FBC stage with a GMP, a very low allowance (1.44%) has been retained for optimism bias. This is below the lower bound figure suggested in guidance and reflects residual risks relating to planning, building regulations (fire evacuations), changes to stakeholder requirements and phase 3 redevelopment/use of ground floor shell space. A copy of the optimism bias assessment can be found within the FB form at Appendix 3b: CIM FBC capital forms - Forms 1-4 (incl Optimism Bias Schedules).

5.3.10 VAT recovery

BDO, the Trust's VAT advisors on P22, have ratified the VAT recovery position for this project. However, due to the current delays in the system the application from BDO to HMRC has not yet been formally approved.

5.3.11 Phasing of Capital Spend

The phasing of the capital expenditure on the project is illustrated in Table 5-16. Some expenditure has already been incurred (prior to construction commencing) during the 20/21 and this covers statutory fees, business case advisory fees and P22 partner fees. Furthermore, the Trust is due to meet costs for an element of enabling and construction phase works and mobilisation and procurement during 2021/22.

The Trust is seeking early draw down of Treasury funding to undertake the enabling works relating to reprovision of Woodpecker Lodge. The early drawdown funding requirement is for £794.5k including VAT. The Trust is also seeking funding for FBC fees amounting to £1,461k including VAT. The breakdown of this early drawdown is covered in Section 4.8.4.

Table 5-16 Phasing of Capital Spend – Preferred Option

Year	Total £'000
20/21	976.5
21/22	5,068.6
22/23	21,916.6
23/24	2,175.1
Total Capital Costs	**30,136.8**

5.3.12 Source and Application of Funds

The capital funding for the Preferred Option, is set out below. Capital costs have increased by 9.8% since approval of the OBC. The Trust can confirm that this is still affordable, and that the additional contribution required (over and above that stated at OBC) will be covered through ICS capital sourced via an emergency loan application, for which an application has been submitted and included at Appendix 5a: Emergency Loan Applications. As a Trust with a large PFI this is the normal route that the Trust uses to resource the capital programme as the depreciation is largely used to cover PFI payments. No requirement for additional Wave 4 funding is therefore required.

Table 5-17 Source and Application of Funds– Preferred Option

CAPITAL	20/21 £000	21/22 £000	22/23 £000	23/24 £000	Total £000
Funding Source					
Wave 4 Funding Available for Theatres Project	0	3,959.6	18,808.7	0	22,768.3
ICS capital sourced via emergency loan application	976.5	1,109.0	3,107.9	2,175.10	7,368.5
Total	**976.5**	**5,068.6**	**21,916.6**	**2,175.1**	**30,136.8**
Application of Funding					
Enabling work/Mobilisation/Procurement/ Construction/Commissioning	0	3,484.2	17,936.1	1,569.3	22,989.6
Equipment	0	0	0	161.4	161.4
PSCP Fees	497.4	628.6	301.6	75.4	1,503.0
Trust Professional Fees	479.1	259.0	91.7	22.9	852.7
VAT Cashflow	0	696.8	3,587.2	346.1	4,630.1
Total	**976.5**	**5,068.6**	**21,916.6**	**2,175.1**	**30,136.8**
Source *less* Application	**-**	**-**	**-**	**-**	**-**

5.4 Revenue affordability.

5.4.1 Impact of Preferred Option

This business case makes the case for investment in seven new theatres to replace the existing Main Theatres (also seven theatres). There are no expectations that the investment will result in direct operational costs (or savings) for the Trust and no additional income is built into the plans either. Equally, there are no anticipated revenue consequences at an operational level resulting from the planned investment.

5.5 Impact on Statement of Comprehensive Income

The Trust has developed a 5 Year forecast for the year ending 31 March 2026 using the 2020/21 financial year as a baseline position prior to any proposed investment. This is shown in section 5.2.5 and has been utilised to develop the financial statements outlined below.

The impact on the Trust's Statement of Comprehensive Income (SOCI), reflecting only the impact of the proposed investment (preferred option), is set out in the table below along with supporting narrative to assist in the detailed understanding of financial statement movements.

Key financial impact:

- **Other Operating Income:** This represents the loss of 51 staff car parking spaced with a full year value of £29.2k. The financial year 2021/22 recognises a part year loss of income as income will not be lost until construction commences. Please note that this has assumed that staff pay for parking, this has been suspended nationally for the pandemic and whether charging resumes is as yet unknown. This has therefore been included for prudency.
- **Operating Expenses:** All operating expenses (i.e. any expenses excluding pdc dividend) have been captured under one single heading in line with Trust financial reporting guidelines. Any resulting affordability gap as a result of the investment is to be bridged by an increase in CIP. For the purposes of this FBC CIP is shown as one single heading but the exact nature of savings will be determined in line with the Trusts standard CIP approach. Details of each financial impact is as follows:
  - **Impairments:** Woodpecker Lodge will be demolished to make way for the new facility and will be impaired in in 2021/22. Following construction of the new asset there will be an impairment of the new capital asset, and this is expected to be £4.8m, in line with the professional valuation received from Gerald Eve.
  - **Other operating costs:** FM costs are expected to increase by £10.3k per annum (Full Year) and will commence in August 2023. PFI charges will increase by £2.2k per annum and the Trust will be liable to pay carbon offset charges of £1.4k per annum commencing December 2023.
  - **Depreciation:** For the financial years 2021/22 and 2022/23 the Trust will see a reduction in its depreciation charges relating to the impairment of Woodpecker Lodge (part year / full year respectively). Once the new facility has been completed depreciation charges will be applied for the new theatre block.
  - **Capital Charges:** in line the impairment of Woodpecker Lodge, the recognition of the new asset and any resultant impairment of the new asset, net capital charge increases are also recognised. There will also be one-off impacts affecting the Trusts' SOCI (below the reported surplus/deficit position from continuing operations) relating to impairments.

The incremental impact on the SOCI is shown in Table 5-18. Please note that the analysis includes rounding of those figures referred to above.

Table 5-18 Statement of Comprehensive Income - Incremental

	2020/21 £000	2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	2025/26 £000
Operating income from patient care activities	-	-	-	-	-	-
Other operating income	-	(7)	(29)	(29)	(30)	(29)
Operating expenses (*see breakdown below)	123	561	932	(3,903)	879	862
Operating surplus/(deficit) from continuing operations	**123**	**554**	**903**	**(3,932)**	**849**	**833**
Finance income	-	-	-	-	-	-
Finance expenses	-	-	-	-	-	-
PDC dividend expense	(123)	(595)	(903)	(866)	(849)	(833)
Net finance costs	**(123)**	**(595)**	**(903)**	**(866)**	**(849)**	**(833)**
Other losses	-	-	-	-	-	-
Surplus / (deficit) for the year from continuing operations	**-**	**(41)**	**-**	**(4,798)**	**-**	**-**
Surplus / (deficit) for the year	**-**	**(41)**	**-**	**(4,798)**	**-**	**-**
Other comprehensive income						
Will not be reclassified to income and expenditure:						
Impairments	-	-	-	-	-	-
Revaluations	-	-	-	-	-	-
Total comprehensive expense for the period						
Memorandum / Adjusted financial performance (control total basis):						
Surplus / (deficit) for the period	-	(41)	-	(4,798)	-	-
Remove net impairments not scoring to the Departmental expenditure limit	-	41	-	4,798	-	-
Remove I&E impact of capital grants and donations	-	-	-	-	-	-
Remove net impact of DHSC centrally procured inventories	-	-	-	-	-	-
Remove 2018/19 post audit PSF reallocation (2019/20 only)	-	-	-	-	-	-
Adjusted financial performance surplus / (deficit)	**-**	**-**	**-**	**-**	**-**	**-**
(*) Operating Expenses:						
Impairment	-	(41)	-	(4,798)	-	-
Additional FM cost	-	-	-	(7)	(11)	(11)
PFI ASP Charge	-	-	-	(2)	(2)	(2)
Carbon Offset	-	-	-	(1)	(1)	(1)
Depreciation	-	2	5	(370)	(494)	(494)
CIP (to meet affordability gap)	123	600	927	1,275	1,387	1,370
Total	**123**	**561**	**932**	**(3,903)**	**879**	**862**

The revenue impact associated with the Preferred Option, Option 1: Do Minimum, in the OBC was £2.4m. As can be seen from Table 5-18 the additional CIP requirement to meet the additional revenue requirement of the project progressively increases from £123k (20/21) to a peak of £1,387k in 2024/25. This is c.£1,000k lower than reported at OBC.

The affordability gap is seen as being manageable when considered against total Trust operating expenses of c. £550m and would not cause a material impact on the Trust's 5-year financial forecast position set out above.

The main contributor to the affordability gap is by way of the depreciation and capital charges impact resulting from the capital investment (rather than any material direct/indirect operational cost increases). The movement in revenue affordability between OBC and FBC can be explained by the differential treatment of capital expenditure in terms of assumed 'useful economic lives' combined with the impact that the initial impairment has on future

depreciation and capital charges. These assumptions have been updated based on the information included within the impairment review undertaken by the Trust's Valuation Advisors' Gerald Eve.

The revised 5-year forecast SOCI position, including the project investment, is set out in the table below.

Table 5-19 Statement of Comprehensive Income – Combined 5-year Forecast (Including Project Investment)

	2020/21 £000	2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	2025/26 £000
Operating income from patient care activities	502,153	513,717	509,872	512,421	514,983	517,558
Other operating income	81,135	65,716	66,024	66,354	66,685	67,019
Operating expenses	(563,008)	(553,126)	(557,467)	(574,890)	(582,079)	(594,312)
Operating surplus/(deficit) from continuing operations	**20,281**	**26,307**	**18,429**	**3,885**	**(411)**	**(9,735)**
Finance income	7	36	36	36	36	36
Finance expenses	(18,840)	(21,205)	(20,906)	(20,601)	(20,290)	(19,973)
PDC dividend expense	(3,572)	(5,521)	(9,243)	(9,732)	(9,700)	(9,152)
Net finance costs	**(22,406)**	**(26,690)**	**(30,113)**	**(30,297)**	**(29,954)**	**(29,089)**
Other losses	(30)	-	-	-	-	-
Surplus / (deficit) for the year from continuing operations	**(2,155)**	**(383)**	**(11,684)**	**(26,412)**	**(30,365)**	**(38,824)**
Surplus / (deficit) for the year	**(2,155)**	**(383)**	**(11,684)**	**(26,412)**	**(30,365)**	**(38,824)**
Other comprehensive income						
Will not be reclassified to income and expenditure:						
Impairments	(15,906)	-	-	-	-	-
Revaluations	24,231	-	-	-	-	-
Total comprehensive expense for the period	**6,170**	**-**	**-**	**-**	**-**	**-**
Memorandum / Adjusted financial performance (control total basis):						
Surplus / (deficit) for the period	(2,155)	(383)	(11,684)	(26,412)	(30,365)	(38,824)
Remove net impairments not scoring to the Departmental expenditure limit	3,533	41	-	4,798	-	-
Remove I&E impact of capital grants and donations	(728)	366	373	380	387	395
Remove net impact of DHSC centrally procured inventories	(571)	-	-	-	-	-
Remove 2018/19 post audit PSF reallocation (2019/20 only)	-	-	-	-	-	-
Adjusted financial performance surplus / (deficit)	**79**	**24**	**(11,311)**	**(21,234)**	**(29,978)**	**(38,429)**

5.6 Impact on Statement of Financial Position (SOFP)

The incremental impact on the Trust's SOFP is shown in Table 5-20.

The incremental SOFP takes account of the financial changes noted above in section 5.5 and captures the impact on:

- Property, plant and equipment, being the net impact of impairment and depreciation savings for Woodpecker Lodge and capitalisation of the new facility and equipment (net of opening impairment).
- Cash and cash equivalents, being the net impact of lost income, increased operating costs (expenditure and PDC).
- Public Dividend Capital; and
- Reserves.

The income and expenditure reserve changes only by the impairment values referred to above as cost pressures and CIPs balance each other out.

Table 5-20 Statement of Statement of Financial Position (SOFP) – Incremental

	31 Mar 21 £000	31 Mar 22 £000	31 Mar 23 £000	31 Mar 24 £000	31 Mar 25 £000	31 Mar 26 £000
Non-current assets						
Property, plant and equipment	977	6,006	27,928	24,935	24,441	23,947
Receivables	-	-	-	-	-	-
Total non-current assets	**977**	**6,006**	**27,928**	**24,935**	**24,441**	**23,947**
Current assets						
Inventories	-	-	-	-	-	-
Receivables	-	-	-	-	-	-
Non-current assets for sale and assets in disposal groups	-	-	-	-	-	-
Cash and cash equivalents	-	(2)	(7)	363	857	1,351
Total current assets	**-**	**(2)**	**(7)**	**363**	**857**	**1,351**
Current liabilities						
Trade and other payables	-	-	-	-	-	-
Borrowings	-	-	-	-	-	-
Provisions	-	-	-	-	-	-
Other liabilities	-	-	-	-	-	-
Total current liabilities	**-**	**-**	**-**	**-**	**-**	**-**
Total assets less current liabilities	**977**	**6,004**	**27,921**	**25,298**	**25,298**	**25,298**
Non-current liabilities						
Trade and other payables	-	-	-	-	-	-
Borrowings	-	-	-	-	-	-
Provisions	-	-	-	-	-	-
Other liabilities	-	-	-	-	-	-
Total non-current liabilities	**-**	**-**	**-**	**-**	**-**	**-**
Total assets employed	**977**	**6,004**	**27,921**	**25,298**	**25,298**	**25,298**
Financed by						
Public dividend capital	977	6,045	27,962	30,137	30,137	30,137
Revaluation reserve	-	-	-	-	-	-
Income and expenditure reserve	-	(41)	(41)	(4,839)	(4,839)	(4,839)
Total taxpayers' equity	**977**	**6,004**	**27,921**	**25,298**	**25,298**	**25,298**

Note: PMO costs are not included in the incremental impact shown above as these are being met from current Trust resources.

The revised 5-year forecast SOFP position, including the project investment, is set out in the table below.

Table 5-21 Statement of Statement of Financial Position (SOFP) – Combined 5 Year Forecast(Including Project Investment)

	31 Mar 21 £000	31 Mar 22 £000	31 Mar 23 £000	31 Mar 24 £000	31 Mar 25 £000	31 Mar 26 £000
Non-current assets						
Property, plant and equipment	478,458	481,502	508,995	491,578	475,848	459,293
Receivables	39,117	39,117	39,117	39,117	39,117	39,117
Total non-current assets	**517,575**	**520,619**	**548,112**	**530,695**	**514,965**	**498,410**
Current assets						
Inventories	6,557	6,557	6,577	6,597	6,618	6,638
Receivables	19,891	36,888	37,072	37,079	37,444	37,631
Non-current assets for sale and assets in disposal groups	1,725	1,725	1,725	1,725	1,725	1,725
Cash and cash equivalents	76,075	62,472	73,857	77,252	73,616	62,269
Total current assets	**104,877**	**107,642**	**119,232**	**122,654**	**119,403**	**108,264**

	31 Mar 21 £000	31 Mar 22 £000	31 Mar 23 £000	31 Mar 24 £000	31 Mar 25 £000	31 Mar 26 £000
Current liabilities						
Trade and other payables	(60,479)	(43,146)	(44,037)	(44,479)	(45,876)	(46,827)
Borrowings	(11,892)	(11,517)	(11,737)	(11,961)	(12,189)	(12,189)
Provisions	(3,487)	(3,487)	(3,487)	(3,487)	(3,487)	(3,487)
Other liabilities	(5,175)	(5,175)	(5,175)	(5,175)	(5,175)	(5,175)
Total current liabilities	**(81,033)**	**(63,325)**	**(64,436)**	**(65,102)**	**(66,727)**	**(67,678)**
Total assets less current liabilities	**541,420**	**564,936**	**602,908**	**588,247**	**567,641**	**538,996**
Non-current liabilities						
Trade and other payables	(124)	(124)	(124)	(124)	(124)	(124)
Borrowings	(318,132)	(313,944)	(309,073)	(304,109)	(299,050)	(294,127)
Provisions	(2,087)	(2,087)	(2,087)	(2,087)	(2,087)	(2,087)
Other liabilities	(333)	(333)	(333)	(333)	(333)	(333)
Total non-current liabilities	**(320,676)**	**(316,488)**	**(311,617)**	**(306,653)**	**(301,594)**	**(296,671)**
Total assets employed	**220,743**	**248,448**	**291,292**	**281,594**	**266,047**	**242,325**
Financed by						
Public dividend capital	602,263	630,351	684,880	701,594	716,412	731,513
Revaluation reserve	92,889	92,889	92,889	92,889	92,889	92,889
Income and expenditure reserve	(474,410)	(474,792)	(486,477)	(512,889)	(543,254)	(582,077)
Total taxpayers' equity	**220,743**	**248,448**	**291,292**	**281,594**	**266,047**	**242,325**

5.7 Impact on Statement of Cashflows

The incremental impact on the Trust's Statement of Cashflows is shown in Table 5-22.

As cost pressures and CIPs balance each other out the incremental cash flow, in the main, captures cashflows (in and out) relating to capital expenditure (PDC received and cash payments out) along with adjustments for non-cash items, being depreciation and asset impairment.

Table 5-22 Statement of Cashflows - Incremental

	2020/21 £000	2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	2025/26 £000
Cash flows from operating activities						
Operating surplus / (deficit)	-	(41)	-	(4,798)	-	-
Non-cash income and expense:						
Depreciation and amortisation	-	(2)	(5)	370	494	494
Net impairments	-	41	-	4,798	-	-
Income recognised in respect of capital donations	-	-	-	-	-	-
(Increase) / decrease in receivables and other assets	-	-	-	-	-	-
Increase in inventories	-	-	-	-	-	-
Increase in payables and other liabilities	-	-	-	-	-	-
Increase / (decrease) in provisions	-	-	-	-	-	-
Other movements in operating cash flows	-	-	-	-	-	-
Net cash flows from operating activities	**-**	**(2)**	**(5)**	**370**	**494**	**494**
Cash flows from investing activities						
Interest received	-	-	-	-	-	-
Purchase of PPE and investment property	(977)	(5,068)	(21,917)	(2,175)	-	-
Sales of PPE and investment property	-	-	-	-	-	-
Receipt of cash donations to purchase assets	-	-	-	-	-	-
Net cash flows used in investing activities	**(977)**	**(5,068)**	**(21,917)**	**(2,175)**	**-**	**-**
Cash flows from financing activities						
Public dividend capital received	977	5,068	21,917	2,175	-	-
Movement on loans from DHSC	-	-	-	-	-	-
Movement on other loans	-	-	-	-	-	-
Capital element of finance lease rental payments	-	-	-	-	-	-
Capital element of PFI, LIFT and other service concession payments	-	-	-	-	-	-

	2020/21 £000	2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	2025/26 £000
Interest on loans	-	-	-	-	-	-
Interest paid on finance lease liabilities	-	-	-	-	-	-
Interest paid on PFI, LIFT and other service concession obligations	-	-	-	-	-	-
PDC dividend (paid)/refunded	-	-	-	-	-	-
Cash flows used in other financing activities	-	-	-	-	-	-
Net cash flows from financing activities	**977**	**5,068**	**21,917**	**2,175**	**-**	**-**
Increase in cash and cash equivalents	**-**	**(2)**	**(5)**	**370**	**494**	**494**
Cash and cash equivalents at 1 April - brought forward	**-**	**-**	**(2)**	**(7)**	**363**	**857**
Cash and cash equivalents at 31 March	**-**	**(2)**	**(7)**	**363**	**857**	**1,351**

The revised 5-year forecast SOCF position, including the project investment, is set out in the table below.

Table 5-23 Statement of Cashflows – Combined 5-Year Forecast (Including Project Investment)

	2020/21 £000	2021/22 £000	2022/23 £000	2023/24 £000	2024/25 £000	2025/26 £000
Cash flows from operating activities						
Operating surplus / (deficit)	20,281	25,713	17,525	3,019	(1,261)	(10,568)
Non-cash income and expense:						
Depreciation and amortisation	21,180	25,003	27,035	29,334	30,547	31,656
Net impairments	3,533	41	-	4,798	-	-
Income recognised in respect of capital donations	(989)	-	-	-	-	-
(Increase) / decrease in receivables and other assets	19,992	(16,997)	(184)	(7)	(365)	(187)
Increase in inventories	(526)	-	(20)	(20)	(20)	(21)
Increase in payables and other liabilities	23,022	(17,333)	890	442	1,398	950
Increase / (decrease) in provisions	2,801	-	-	-	-	-
Other movements in operating cash flows	-	-	-	-	-	-
Net cash flows from operating activities	**89,294**	**16,427**	**45,246**	**37,566**	**30,299**	**21,830**
Cash flows from investing activities						
Interest received	7	36	36	36	36	36
Purchase of PPE and investment property	(41,280)	(27,111)	(54,528)	(16,715)	(14,818)	(15,101)
Sales of PPE and investment property	-	-	-	-	-	-
Receipt of cash donations to purchase assets	-	-	-	-	-	-
Net cash flows used in investing activities	**(41,273)**	**(27,075)**	**(54,492)**	**(16,679)**	**(14,782)**	**(15,065)**
Cash flows from financing activities						
Public dividend capital received	299,414	27,111	54,528	16,715	14,818	15,101
Movement on loans from DHSC	(268,321)	-	-	-	-	-
Movement on other loans	-	-	-	-	-	-
Capital element of finance lease rental payments	(622)	-	-	-	-	-
Capital element of PFI, LIFT and other service concession payments	(10,958)	(4,564)	(4,651)	(4,740)	(4,831)	(4,923)
Interest on loans	(826)	(75)	(75)	(75)	(75)	(75)
Interest paid on finance lease liabilities	(52)	-	-	-	-	-
Interest paid on PFI, LIFT and other service concession obligations	(18,694)	(21,130)	(20,831)	(20,526)	(20,215)	(19,989)
PDC dividend (paid)/refunded	(4,342)	(4,926)	(8,340)	(8,866)	(8,851)	(8,319)
Cash flows used in other financing activities	1	-	-	-	-	-
Net cash flows from financing activities	**(4,399)**	**(3,584)**	**20,631**	**(17,492)**	**(19,154)**	**(18,114)**
Increase in cash and cash equivalents	**43,622**	**(14,232)**	**11,385**	**3,395**	**(3,637)**	**(11,349)**
Cash and cash equivalents at 1 April - brought forward	**33,083**	**76,705**	**62,473**	**73,858**	**77,253**	**73,616**
Cash and cash equivalents at 31 March	**76,705**	**62,473**	**73,858**	**77,253**	**73,616**	**62,267**

5.8 Impact on Capital Departmental Expenditure Limit

The impact on the CDEL is shown in Table 5-24 and captures the gross capital expenditure and relevant impairment of the existing Woodpecker Lodge.

Table 5-24 CDEL

CDEL	20/21 £'000	21/22 £'000	22/23 £'000	23/24 £'000	Total £'000
Gross Capex (approval value)	976.5	5,068.6	21,916.6	2,175.1	30,136.8
Less NBV of Disposals	-	(40.6)	-	-	(40.6)
Less Grants and Donations (must be in the same financial year as the capex)	-	-	-	-	-
CDEL	**976.5**	**5,028.0**	**21,916.6**	**2,175.1**	**30,096.2**

5.9 Sensitivity analysis

As explained within this financial case chapter, the incremental affordability is, in the main, caused by the increase in capital charges and depreciation resulting from the investment. Operational cost issues (FM, PFI charge increases, carbon offset and loss of car parking income) is not seen as being material to the affordability impact.

For this reason, we have run sensitivities to test the revenue impact of capital investment should capital costs increase.

In terms of potential, adverse, movements in capital expenditure there are two potential scenarios to consider:

1. Any increase in capital expenditure increases the impairment value on completion of construction. The rationale for this is that Gerald Eve (the Trusts professional valuation advisers) have provided an opinion of the likely valuation of the new asset – irrespective of final out-turn cost. Any capital cost increase would happen in the final year of construction and therefore not materially affect capital charges or depreciation, and therefore the CIP does not increase; and
2. The suggested impairment value of the completed asset remains the same if capital expenditure increases, with the additional capital increasing the value of the resulting asset. This would cause both capital charges and depreciation to increase in line with the quantum of capital cost increase.

Whilst the latter is unrealistic, the impact of this scenario (i.e. the impact on CIP) is shown in Table 5-25.

Table 5-25 Sensitivity analysis

	21/22 £000	22/23 £000	23/24 £000	24/25 £000	25/26 £000
Base:					
Surplus / (deficit) for the year	(342)	(11,684)	(21,614)	(30,365)	(38,824)
Adjusted financial performance surplus / (deficit)	24	(11,311)	(21,234)	(29,978)	(38,429)
Scenario 1					
10% increase in Capital Expenditure					
Change to impairment value	-	-	3,014	-	-
Increase in capital charges	-	-	-	-	-
Increase in Depreciation	-	-	-	-	-
CIP Increase	-	-	-	-	-
Total CIP	-	-	-	-	-
Surplus / (deficit) for the year	(342)	(11,684)	(24,628)	(30,365)	(38,824)
Adjusted financial performance surplus / (deficit)	24	(11,311)	(21,234)	(29,978)	(38,429)
20% increase in Capital Expenditure					
Change to impairment value	-	-	6,028	-	-
Increase in capital charges	-	-	-	-	-
Increase in Depreciation	-	-	-	-	-

	21/22 £000	22/23 £000	23/24 £000	24/25 £000	25/26 £000
CIP Increase	-	-	-	-	-
Total CIP	-	-	-	-	-
Surplus / (deficit) for the year	(342)	(11,684)	(27,642)	(30,365)	(38,824)
Adjusted financial performance surplus / (deficit)	24	(11,311)	(21,234)	(29,978)	(38,429)
Scenario 2					
CIP to meet Project affordability gap	600	927	1,275	1,387	1,370
10% increase in Capital Expenditure					
Increase in capital charges	-	-	78	102	100
Increase in Depreciation	-	-	43	57	57
CIP Increase	**-**	**-**	**121**	**159**	**157**
Total CIP	**600**	**927**	**1,396**	**1,546**	**1,527**
20% increase in Capital Expenditure					
Increase in capital charges	-	-	156	205	201
Increase in Depreciation	-	-	85	114	114
CIP Increase	**-**	**-**	**241**	**319**	**315**
Total CIP	**600**	**927**	**1,516**	**1,706**	**1,685**

As stated above, for scenario 1 there is no resulting impact on Trust CIP and so affordability is not affected. The results from scenario 2 show that although the CIP increases when capital costs increase, the peak level of CIP still falls below that stated at OBC (£2,400k) and is still affordable to the Trust.

5.10 Reconciliation of demand, capacity, workforce, financial and efficiency assumptions.

The above assumptions underpinning the Preferred Option, remains unchanged and are consistent with the OBC.

The Trust will not require additional workforce (WTE) to deliver the projected demand associated with this project over the next 5 years. This is a key principle underpinning the revenue affordability and financial statements in this case.

5.11 Financial model assurance

There are no financial models that need assurance for this scheme.

5.12 Data Sources

The estate size requirements and capital cost information for the Theatres have been determined through discussions with the Trust's estates team and with expert external advisers.

5.13 Accounting Treatment/Impairment Review

The newly constructed theatres of Hinchingbrooke Hospital will be owned by and will sit on the asset register of North West Anglia NHS Foundation Trust. The Trust has engaged Gerald Eve (Professional Valuation Advisers) to undertake a valuation of the new theatre block in readiness for accounting for the new asset.

The review indicates the New Theatres will have a value of £25,178k (based on Depreciated Replacement Cost calculations). This indicates a likely impairment of c16% against the total cost (£30,136k). The valuation is based on the following apportionment of building value and useful economic lives. This impairment assessment has been taken into account in the affordability analysis presented in this Case. A copy of the Gerald Eve report can be found at Appendix 5b: Impairment Report – Gerald Eve.

Table 5-26 Impairment Analysis Summary

			Apportionment of Building Value		Estimated Remaining Lives		
Buildings	Equated New Life	Structure	Fit out	M&E	Structure	Fit out	M&E
£25,178k	53	£12,985k	£1,920k	£10,273k	90	50	35

There are no further asset ownership considerations for the Trust.

For the avoidance of doubt, the split of costs between revenue and capital as presented in this FBC is in line with the Trust's current capitalisation policy.

5.14 Recharges

There are no expected external recharges within the scheme.

5.15 Contingencies

The Trust have an agreed GMP, and the Trust technical advisers are confident that the planning contingency associated with the Preferred Option is deemed appropriate for a project of this size and nature. There will be no further centrally funded contingency sum that can be called upon by the Trust when delivering this scheme.

As outlined in Table 5-17, the project will principally be funded via Wave 4 Capital Funding and the balance of £7,368.5k from ICS capital sourced via Emergency Loan application.

The Trust has developed a fully costed risk register and plan that supports the project contingency, which is documented in Appendix 3d: Project Construction Quantified Risk – Planning Contingency.

The Trust is confident that the scheme will be delivered within the total capital costs outlined within this FBC i.e., £30,136k (inclusive of contingency and optimism bias). In the unexpected event of further cost over-runs the Trust would allocate the necessary funds from its core capital programme. In the event that a capital costs increase has a knock-on effect against Trust revenue, the Trust would look to accommodate this by way of an increase to the CIP figures referred to above.

5.16 Conclusion

Whilst the capital cost envelope has increased since OBC, the Trust is confident that Option 1: Do Minimum Preferred Option is affordable in both capital and revenue terms. Revenue affordability has reduced since OBC from c.£2,400k p.a. to a peak of c£1,400k p.a. in 2024/25.

An ICS letter of support is included at Appendix 2d: Letter of Commissioner & ICS support.

Key areas of affordability include:

- A total capital requirement of £30,136.8k including VAT, contingency and inflation funded from the Wave 4 allocation (322,768.3k) and balance from ICS capital sourced via Emergency Capital Loan application (£7,368.5k).
- A peak revenue cost pressure of c.£1,400k p.a. (at 2024/25) generated, in the main from increased capital charges, will be met through an increase to Trust CIPs.

6 Management case

6.1 Introduction

This section of the business case sets out the management arrangements and how the project will be managed.

6.2 Project Management Arrangements

This project is managed and operated in accordance with the principles of the Prince II methodology. The Trust has developed a Project Initiation Document (PID) and Project Execution Plan (PEP) with Graham Construction. These are live documents and copies are located in Appendix 6b: Project Initiation Document Phase 2 Main Theatres and Appendix 6a: Project Execution Plan Phase 2 Main Theatres respectively.

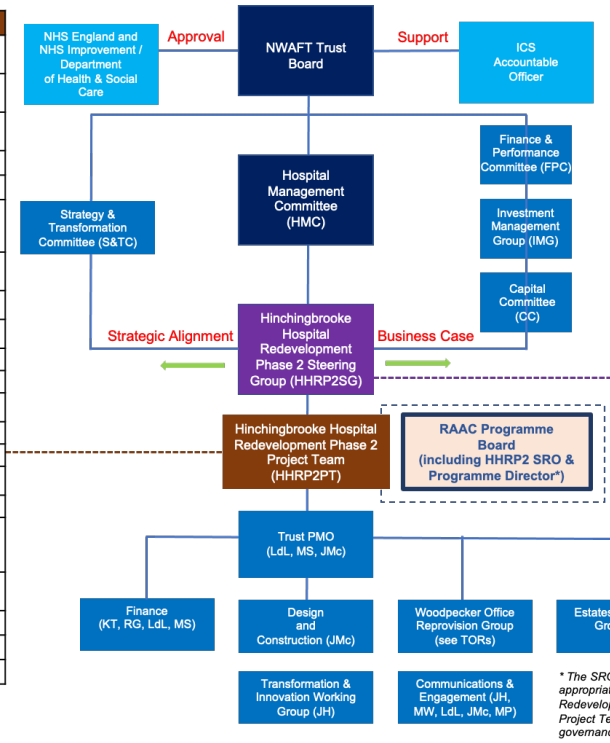
6.2.1 Project Governance Structure

The overarching governance structure for the Hinchingbrooke Hospital Redevelopment Phase 2 (Main Theatres) project is set out in Figure 6-1 below. The remit of the Steering Group and Project Team are also described below. The structure is consistent with the Trust-wide terms of reference for the governance of capital investment projects. It is important to note that the Redevelopment Programme governance and management is closely aligned with that of Reinforced Autoclaved Aerated Concrete (RAAC) programme.

Figure 6-1 Hinchingbrooke Hospital Redevelopment Phase 2 Project Governance Structure[18]

HHRP2 Project Team Membership	
Luke de Lord (M)	Chair & HHRP2 Programme Director
Muhammad Syed (M)	Deputy Chair and HHRP2 Project Manager
Jacqui McDonald (M)	Design and Construction Sub-Group Lead
Eric Fehily (M)	Director of Estate and Facilities
Suzanne Hamilton (M)	Clinical Lead
Joyce Hartzenberg (M)	Comms and Engagement, WORS and Transformation & Innovation Sub-Groups Lead
Jason Knaepel (M)	Design and Construction Sub-Group Member
Sue Somers (M)	Design and Construction Sub-Group Member
Kate Hopcraft (M)	Divisional Operations Lead - Surgery
Filippo DiFranco (M)	Divisional Clinical Lead - Surgery
Richard George (M)	Finance Sub-Group Member
Kirsty Whiting (M)	Infection Prevention and Control Lead
Laura Stent (M)	Nursing Lead
Barry Patton (M)	IT Lead
Mandy Ward (M)	Communications & Engagement Lead
Jonathan Hale (A)	Full Business Case Lead
Katie Gosling (A)	Strategic Estates Advisor, NHS England and NHS Improvement (NHSEI) Regional Team
Clive Guyer (A)	Design Advisor (Director, Murphy Philips)
Elizabeth Smith (A)	PSCP Lead
Matt Hill (A)	Joint Cost Advisor
Michael Peacock (A)	HHRP2 Project Support Officer

M = Member
A = Attendee



HHRP2 Steering Group Membership	
Arshiya Khan (M)	Chair, Executive Lead and Senior Responsible Officer
Mike Ellwood (M)	Non-Executive Representative
Joel Harrison (M)	Chief Finance Officer
Joyce Hartzenberg (M)	Deputy Chair
Eric Fehily (M)	Director of Estates & Facilities
Suzanne Hamilton (M)	Deputy Medical Director & Clinical Lead
Stacey Coburn (M)	Deputy Chief Operating Officer
Luke de Lord (A)	HHRP2 Programme Director
Muhammad Syed (A)	HHRP2 Project Manager
Katie Thornley (A)	Finance Sub-Group Lead
Jacqui McDonald (A)	Design and Construction Sub-Group Lead
Richard George (A)	Finance Sub-Group Member
Michael Peacock (A)	Major Project Support Manager
Matt Hill (A)	Joint Cost Advisor
Elizabeth Smith (A)	PSCP Lead
Louise Bardsley (A)	Senior Strategic Change Manager, NHS England and NHS Improvement (NHSEI) Regional Team

M = Member
A = Attendee

** The SRO and Programme Director attend the RAAC Programme Board to ensure appropriate alignment of the RAAC Programme to the Hinchingbrooke Hospital Redevelopment Programme. The HHRP Programme Director also attends RAAC Project Team meetings. The HHRP and RAAC Programmes retain their own governance structures, SRO and reporting lines internally and externally to NHSEI.*

The Steering Group is attended by the SRO (Chair), Chief Finance Officer, Director of Estates and Facilities, Programme Director, relevant Directorate/Divisional Leads, Clinical leads, Project Manager and Key Workstream Leads. The Steering Group sets the direction, makes recommendations for the Project Team to action and provides advice to the Trust Board on the project. The Steering Group receives Project Team update reports and offers proposed resolution to matters escalated by the Project Team. NHSEI representatives are also invited to attend.

The Project Team is attended by the Programme Director (Chair), Project Manager, Clinical leads, Workstream Leads and Workstream Members (full membership details are included in section 6). Specialist advisors may be invited to attend on an ad hoc basis. The Project Team undertakes detailed review of progress made by the workstreams against key milestones and identifies issues for escalation and decision by the Steering Group. Regular reports are prepared for the Steering Group on progress against key milestones in the project programme and project risks. NHSEI representatives are also invited to attend.

[18] Jacqui McDonald left the project in June 2021 just prior to the submission of the FBC. The Trust is recruiting a replacement. In the interim the Project Manager is undertaking the tasks of Design & Construction Sub Group Lead.

In addition to the Steering Group and Project Team, the project structure above shows that there a number of Workstreams which will undertake detailed work on clinical/technical aspects and are key to successful delivery of the scheme.

The terms of reference for the Steering Group and Project Team are available at Appendix 6c: Steering Group & Project Team Terms of Reference.

6.2.2 Roles and Responsibilities

Details of the various project governance groups and roles and responsibilities are set out in the tables below.

Table 6-1 and Table 6-2 below show who attends the Steering Group and the Project Team and in what capacity. The Steering Group membership includes the Chair, Executive Sponsor and Project Director as well as Directorate/Divisional Leads. The Project Manager and key Workstream Leads also attend. The Project Director, Project Manager and Workstream Leads provide updates to the Steering Group.

The Project Team membership includes the Project Director (Chair), Project Manager, Workstream Leads and Support and advisors who attend on an ad hoc basis.

Biographies of the SRO, Arshiya Khan, Project Director, Luke de Lord and Project Manager, Muhammad Syed are set out in Appendix 6d: SRO & PMO Biographies.

Table 6-1 Steering Group Membership

Name	Position	Project Role	Membership Status
Arshiya Khan	Chief Strategy and Transformation Officer	Senior Responsible Officer and Chair	Member
Mike Ellwood	Non-Executive Director	NED Representation	Member
Suzanne Hamilton	Deputy Medical Director	Clinical Lead	Member
Joel Harrison	Chief Finance Office	Finance Lead	Member
Eric Fehily	Director of Estates and Facilities	Estates and Facilities Lead	Member
Stacey Coburn	Deputy Chief Operating Officer	Operational Lead	Member
Joyce Hartzenberg	Deputy Director of Strategy and Transformation	Deputy Chair	Member
Katie Thornley	Assistant Director of Strategy	Finance Sub-Group Lead	Attendee
Richard George	Finance Business Partner – Capital Programme and Major Schemes	Finance Sub-Group Member	Attendee
Luke de Lord	Programme Director, Hinchingbrooke Hospital Redevelopment Phase 2	Project Team Chair	Attendee
Muhammad Syed	Senior Project Manager	Project Manager	Attendee
Jacqui McDonald (see footnote 18 above)	Senior Project Manager	Design & Construction Sub-Group Lead	Attendee
Michael Peacock	Major Project Support Manager	Project Support	Attendee
Matt Hill	Director, Edge Property Solutions	Joint Cost Advisor	Member
Elizabeth Smith	Framework Manager, Graham Construction	PSCP Lead	Member
Louise Bardsley	Senior Strategic Change Manager, NHS England and NHS Improvement (NHSEI)	NHSEI Regional Team Representative	Attendee

Table 6-2 Project Team Membership

Name	Position	Project Role	Membership Status
Luke de Lord	Programme Director, Hinchingbrooke Hospital Redevelopment Phase 2	Chair	Member
Muhammad Syed	Senior Project Manager	Project Manager	Member
Jacqui McDonald	Senior Project Manager	Design and Construction Sub-Group Lead	Member
Michael Peacock	Major Project Support Manager	Project Support	Attendee
Eric Fehily	Director of Estates and Facilities	Estates and Facilities Lead	Member
Suzanne Hamilton	Deputy Medical Director	Clinical Lead	Member
Joyce Hartzenberg	Deputy Director of Strategy & Transformation	Transformation Lead	Member
Sue Somers	Design & Construction Sub-Group Member	Design & Construction Sub-Group Member	Member
Jason Knaepel	Theatre Manager, Hinchingbrooke Hospital	Operational Representative	Member
Kate Hopcraft	Divisional Operations Director - Surgery	Operational Representative	Member
Kirsty Whiting	Infection Prevention and Control Representative	Infection Control Representative	Member
Richard George	Finance Business Partner – Capital Programme and Major Scheme	Finance Sub-Group Lead	Member
Laura Stent	Assistant Chief Nurse	Nursing & Care Quality Representative	Member
Filippo Di Franco	Divisional Clinical Director	Divisional Clinical Lead	Member
Barry Patton	IT Operations Manager	IM&T Lead	Member
Mandy Ward	Head of Communications	Communications and Engagement Sub-Group Lead	Member
Elizabeth Smith	Framework Manager, Graham Construction	PSCP Lead	Member
Clive Guyer	Director, Murphy Philipps	Design Advisor	Member
Matt Hill	Director, Edge Property Solutions	Joint Cost Advisor	Member
Jonathan Hale	Business Case Lead	FBC Author	Attendee
Katie Gosling	Strategic Estates Advisor, NHS England and NHS Improvement East of England	NHSEI Regional Team	Attendees

Trust Project Advisors will attend the Project Team on an ad hoc basis.

The following individuals have key roles, and their remit is as follows. Workstream Leads are accountable to the Project Manager for ensuring progress against key milestones and to their respective Leads on the Project Board who will determine the way forward on workstream related issues escalated to the Project Board.

Table 6-3 Project Roles and Responsibilities

Role	Responsibilities
Arshiya Khan, Chair and Senior Responsible Officer	• Has overall accountability and responsibility to the Trust Board for the project. • Updates the Trust Board and the ICS on progress with the project on a regular basis. • Ensures the project follows Trust governance processes. • Provides oversight and direction to the Programme Director. • Chairs and sets the agenda for Steering Group meetings and ensures the meetings achieve their objectives. • Ensures ownership of the vision for the programme and the supporting business cases.

Role	Responsibilities
	• Provides clear leadership and direction throughout the life of the initiatives. • Secures the investment required to set up and run the programme and ensure that resources are made available to deliver the programme. • Assumes full responsibility and accountability for the outcome of the programme and realisation of the benefits. • Establishes the programme's governance arrangements and ensures that appropriate assurance is in place. • Manages the interface with key senior stakeholders, keeping them engaged and informed. • Monitors the key strategic risks facing the programme. • Commission audit and assurance reviews, as required. • Ensures the effectiveness and performance of the programme. • Maintains alignment of the programme to the organisation's strategic direction. • Ensures that the programme remains affordable and will improve the quality of care to the local population.
Luke de Lord, HHRP2 Programme Director and Project Team Chair	• Attends Project Team meetings, acting as chair and drafting the minutes for each meeting. • Project Director of both the Main Theatres Phase 2 and RAAC projects ensuring the two programmes are aligned, • Attends Monthly Steering Group meetings and reports to the Chair / SRO on progress with the scheme. • Provides regular updates to the Trust Strategy and Transformation Committee and the Trust Board. • Ensures the Project Governance process is adhered to and provides the overall Project leadership role, reporting into the SRO. • Reviews the PID and makes any suggested changes where applicable. • Has overall responsibility for project spend. • Engages with the Project Manager and Design and Construction Workstream Lead to provide direction and support. • Has oversight for production of the FBC. • Acts as the principal point of contact with the NHSEI Regional Team. • Co-ordinates all elements of the programme, day to day management of the programme, shaping the overall programme of work to deliver the agreed objectives and lead the programme team. • Plans and designs the programme and proactively monitors its overall progress. • Ensures that a Programme Plan and associated project plans are produced and maintained to identify all key activities, dependencies and milestones required so that the content of the OBC C/D and FBC is produced to the necessary quality standards and to the trust's timetable. • Owns and reviews the programme plan, communicating the impact of any revisions in terms of milestones, timelines and dependencies. • Provides an overall monitoring and assurance role across the programme, to ensure that programme level risks and issues and any internal or external dependencies are defined, managed and escalated where appropriate. • Ensures that appropriate risk, benefits and stakeholder management frameworks are in place for the programme. • Supports and quality assures the business cases and project documentation. • Ensures that the activities and projects that support the delivery of the overall programme are initiated on a consistent basis and that governance arrangements meet requirements. • Ensures a clear understanding amongst both the programme team and the wider organisation of the changes and the impact of those changes. • Develops a Benefits Realisation Plan for inclusion in the stakeholder communication plan. • Develops a stakeholder communication strategy and plan, including a staff engagement plan with the Communications and Stakeholder engagement lead. • Supports the execution of plans by line managers and clinicians.
Muhammad Syed, HHRP2 Project Manager	• Has responsibility for detailed management of the project. • Updates the PID in line with changes proposed by the Programme Director. • Attendance at Project Team and Steering Group meetings.

Role	Responsibilities
	• Ensures commitment to the P22 process and the effective application of the NEC3 Contracts amended for P22. • Provides the main point of contact with the PSCP. • Has responsibility for the effective management of risk by all parties using a single, consistent approach to risk management. • Liaises with the Design & Estates Workstream and Employer's Agent/ Quantity Surveyor and provides oversight to their involvement with the project. • Participates in the evaluation of tender submissions and cost estimates - procured by the PSCP and the Trust. • Undertakes regular review of the programme against key milestones and deliverables and recommends actions to address any delays, ideally before they crystallise. • Manages the contractor tendering process. • Develops the specifications for, commission and co-ordinate the work of the Employer's Agent/Quantity Surveyor and Technical Assurance advisors. • Produces regular updates for the Project Team on progress against timeline. • Supports the Programme Director with monitoring project spend against the approved capital budget and provide regular updates to the Project Team. • Provides oversight on the work in relation to project/contractual documentation and timelines and administration of the P22 process. • Ensures the programme plan is kept up to date. • Maintains risk register. • Co-ordinates the tendering process and keeps Project Manager and appraised of progress and changes. • Undertakes contract administration under the NEC3 form of contract.
Design and Construction Sub-Group Lead [19]	• Has oversight of the design of the Main Theatres building. • Manages the design governance, including the input of advisors to the Design Team. • Attends Project Team and Steering Group meetings. • Manages stakeholder engagement to the design process. • Ensures sign off at the appropriate times by the agreed stakeholders. • Arranges external review of plans by Authorising Engineers. • Manages feedback and prevents scope creep. • Ensures the 1:200s are developed to the agreed timescale and are clinically functional. • Ensures the room data sheets are developed to the agreed timescale and are clinically functional. • Inputs to creation of the PSCP Works Information Pack. • Provides input to development of FBC and responding to queries as required by Business Case Lead. • Creates Equipment Lists and Generic Equipment Specifications as required. • Commissions DAT quality review to be undertaken at the appropriate time. • Completes the FBC stage DAT with stakeholders and the PSCP. • Co-ordinate's pre-construction staff and user questionnaire with the PSCP. • Inputs to the BREEAM assessment and ensuring Graham construction are obtaining all the points achievable. • Reviews the PSCP's strategic construction work plans – considerate constructor, health and safety etc. • Obtains sign off of the design by the Trust Infection Control and Prevention Lead and the Authorising Engineers.

The Project Team is supported by a Michael Peacock, Project Assistant, accessed via the NWAFT Strategy & Transformation Directorate. He provides general support to the Programme, including drafting minutes and providing support to Sub-Groups.

The Project Team will also involve the regulators and be supported by a range of specialist advisors who will provide inputs and attend Sub-Group meetings on an ad hoc basis.

[19] Until submission of the FBC, this was undertaken by Jacqui McDonald. The Trust is currently recruiting a replacement.

Since the OBC was approved, the Trust has reviewed its governance arrangements in relation to RAAC. To ensure appropriate co-ordination, the HHRP2 Programme Director now attends RAAC Project Team and RAAC Programme Board meetings and provides updates to the HHRP2 Project Team and Steering Group on the RAAC Project where there are implications that affect both programmes of work, including Phase 2 (Main Theatres) and/or Phase 3 (future site redevelopment). The existing governance arrangements for each programme are otherwise preserved and two separate SROs and reporting lines will continue. Going forward, these arrangements will remain under review.

6.3 Resourcing Strategy

The change management programme associated with the capital development will be led by the Trust's Strategy & Transformation Directorate.

6.3.1 External Advisors

The Trust has used external advisors for this project. This supplements the Trust's internal resource and provides complementary expertise in specific fields that the Trust is not able to source internally. The advisory team was procured using a competitive tendering exercise. Table 6-4 summarises this specialist external assistance.

Table 6-4 External specialist support

Role	Organisation
*Design Advisor	Murphy Philipps
Financial Advisor	Asteros
*Joint Cost Advisor	EDGE
Valuation Advisor	Gerald Eve
FBC drafting	Winter Apple Ltd

The above specialists marked with * are joint appointments between the Trust and Graham Construction, PSCP.

6.3.2 Project Management Budget

As part of the wider redevelopment work across the Hinchingbrooke site including the oversight of the RAAC panel works, the re-provision of the theatres and the future redevelopment of the hospital the Trust has brought in additional resource to supplement the substantive staff within the Estates and Strategy directorates. This team is working flexibly across the projects as they are intrinsically linked. For the purpose of this business case. However, the roles listed below represent an apportionment of the key personnel within this team to the Main Theatres project, however the team will be used flexibly and supplemented with existing internal resource where required.

The Trust's budget for the PMO is £728k (at 2012/22 prices) through to completion and handover of the Main Theatres project.

The staff covered by the PMO include the following resources:

- Programme Director.
- Project Manager.
- Design and Construction Sub-Group Lead[20]
- Clerk of Works.
- Project Assistant (accessed via the NWAFT Strategy & Transformation Directorate).

The Programme Director has responsibility for the delivery of the project and is accountable to the Hinchingbrooke Hospital Steering Group and the SRO. He oversees development of the FBC, manages the relationship with the PSCP, monitors performance against key construction milestones and ensures the timeline and budget remain on track. The Programme Director escalates any issues requiring decision or action by the SRO or Steering Group. The detailed work with the Advisory Team and the PSCP is undertaken by the Project Manager. The Project Manager prepares update reports on progress and monitors detailed progress against each of the activities/timelines/milestones within the programme.

It should be noted that, in addition to undertaking PMO related activities, the Project Manager resource includes support for the design and construction workstream during the FBC stage which will require additional resource to achieve the appropriate level of review and challenge to the PSCP and to provide assurance to the Programme Director and the Steering Group.

A Clerk of Works will be appointed to oversee the quality and safety of the construction site work, making sure that building plans and specifications are being followed in accordance with the plans. The Clerk of Works will

[20] Until submission of the FBC, this was undertaken by Jacqui McDonald. The Trust is currently recruiting a replacement.

undertake regular inspections of the work on site and will review completed works against the original, signed off drawings and specifications.

The Major Project Support Manager (Project Assistant) provides support setting up meetings, drafting agendas, taking minutes and issuing documentation.

The Trust focuses on operating the PMO in an efficient and cost-effective manner. The PMO will focus on the Main Theatres project but will be utilised flexibly to support wider Hinchingbrooke Hospital Redevelopment Programme projects, such as Phase 3 and the RAAC Project.

6.4 Project Plans

Graham Construction's programme for Main Theatres Building is detailed in Appendix 6e: PSCP: Main Theatres Building – Building Programme and the enabling schemes project plan in Appendix 6f: Enabling Works Programme.

The detailed project plans reflect the key milestone dates, which affect the sequence and timing of activities. The key milestones associated with the above project plans are summarised in the tables below.

The enabling works have been initiated and largely completed before approval of the FBC. The early drawdown arrangements are described in the Commercial Case Section 4.8.4.

Table 6-5 Main Theatres Building – PSCP Key programme milestones

Activity	Key Milestone	Date
Submission of FBC	Submit to NHSEI & DHSC	16th August 2021
Joint Investment Sub-Committee of NHSEI/ DHSC	FBC approval	18th November 2021
Enabling Works Woodpecker and Staff Change Reprovision*	Start on site	2nd August 2021
	Completion	17th October 2021
Service Diversions (electricity, medical gases, etc)	Start on site	31st Aug-21
	Completion	31st Dec-21
Main Construction	Mobilisation	3rd December 2021
	Start on site	3rd Jan-22
	Planned completion	26th May 2023
	Post completion construction	29 May – 19 June 2023
	Go live	19th June 2023

Table 6-6 Enabling Works – Key Programme Milestones

Key Milestone	Programmed Date
Appointment of contractor for ground works/ demolition, modular installation (Staff Change) & refurbishment of existing estate (administration)	2nd July 2021
Appointment of underground service conditions contractor	31st August 2021
Modular installation (Staff Change) & refurbishment of existing estate (administration) complete	30th September 2021
Demotion of Woodpecker Lodge & Staff Change	7th November 2021
Underground services diversions completed	31st December 2021

6.5 Risk Register

The Trust has developed a risk register for the project in accordance with the Trust Risk Management Process and is aligned to the Trust' Corporate Risk Register. It describes how risk will be managed during the delivery of the project. The project's risk register is set out in Appendix 6g: Risk Register.

The risk register comprises an assessment of the risks associated with the project and comprises for each risk.

- Number.
- Risk description and category (for example funding).
- Assessment of the uncontrolled risk by probability, impact and assessment for each risk.
- Mitigation measures required to control each risk.
- Assessment of the controlled risk by probability, impact and assessment for each risk.

- Risk owner.
- Target date.
- Review date.
- Date last updated.
- Direction of travel – (for example, increasing or declining)
- Status (for example, open or closed).

6.6 Benefits Management

A benefits realisation plan (BRP) has been developed by the Trust and is set out in Appendix 6h: Benefits Realisation Plan

The Trust has revisited the benefits associated with the project as outlined in the Economic Case Section 3.14. The BRP incorporates all the benefits associate with the projected including cash releasing and monetised non cash releasing benefits.

The BRP incorporates a description of.

- The benefit.
- How the benefit will be delivered.
- How the benefit will be measured.
- Timescale of delivery.
- Trust lead responsible for successful delivery of the benefit.

6.7 Risk Management Plan

The Trust has developed a risk register for the project which is aligned to the Trust' Corporate Risk Register and describes how risk will be managed during the delivery of the project. As outlined in Section 6.5, the Risk Register defines each risk, assessment of the uncontrolled risk, mitigation of the risk, assessment of the controlled risk and owner of the risk. The Trust's Risk Register acts as the Risk Management Plan (Appendix 6i: Risk Management Plan.

6.8 Contract Management

6.8.1 Main Theatres - Change Control

The Procure 22 NEC3 contract adopted for the Main Theatres Building will be managed by the Trust's Project Manager. The Trust's Project Manager has experience of this contract in a number of trusts.

Any changes whether in respect of scope of work, the budget, or the realisable benefits (see section 6.5) will be subject to a formal change control process, which will be managed on behalf of the project by the Trust Project Manager.

Changes can only be implemented after they have been discussed and approved at the Monthly Progress Meeting. Changes will not be implemented until approval for that change has been recorded either via an e-mail or meeting notes. Changes once approved by the Trust will be administered in line with the processes set out in the NEC3 contract.

The Trust has considered the organisational and cultural impact of delivering the preferred option. In this respect, the Trust considers that this is a relatively low risk project as it involves the "lift and shift" of the Main Theatres Building from old, unsafe accommodation into a new purpose-built, future proof facility with no workforce re-profiling required. However, the new facility combined with transformation offers the ability to contain future growth trends which will not be possible in the current facilities due to structure related inefficiencies. User groups have been established and will continue as a forum to plan the design, equipping, commissioning and operationalisation of the new facility.

The users have been involved in the development of the project and support the preferred option. Further information can be seen in section 6.12 and also the signed off plans (see section 4.8.2 of the Commercial Case).

6.8.2 Enabling - Change Control

The Trust and Excel will execute a JCT Design and Build Contract for the works. The Trust's Project Manager has experience of this contract.

A similar approach outlined in Section 1.15.5 will be adopted for the enabling schemes supplemented by weekly meetings due to the short duration of the works.

6.9 Workforce

6.9.1 Workforce Strategy

The Trust is currently updating its Workforce Strategy. This is due for Trust Board sign off this year. However, this has been delayed due to the pandemic. The Workforce Strategy is aligned to the new NHS people plan.

The following documents are set out in Appendix 6j: Workforce Strategy.

- NWA People Plan update DoH Feb 2021.
- NWAFT Recovery Paper Public Board 301120.
- WF OD Strategy at December 2017 FINAL.

6.9.2 Workforce Implications

As the number of theatres is not increasing, there are no plans for additional staff for Main Theatres. In future years, should the theatre day be lengthened, staffing requirements will be reviewed at the time.

6.10 Building Information Modelling (BIM)

Building Information Modelling (BIM) is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to plan more efficiently, design, construct, and manage buildings and infrastructure.

The BIM Execution Plan is set out in Appendix 6k: BIM Execution Plan. The BIM Execution Plan will be primarily used as an internal document within the Contractor's Design Team, with a BIM model being used as a tool to benefit the Trust in terms of project delivery, aiding design co-ordination and mitigating project risk.

The full BIM is a model in AutoCAD supported by a series of data collections at the end of each design stage. The end of Stage 3 is complete and consists of the full collection of documents.

6.11 Government Soft Landings

Government Soft Landings (GSL) is a framework that helps the smooth transition from design and construction to operation and use of a building maintaining a 'golden thread' of the facility's purpose and also enables structured monitoring of performance standards during delivery and facility operation.

The Trust's PSCP Graham Construction has worked with the Trust and developed the following.

Stage 3 FBC of the P22 GSL Toolkit has been completed.

- The following log books have been initiated.
  - NWAFT Hinchingbrooke Theatres Building User Guide V01.doc
  - NWAFT Hinchingbrooke Theatres CIBSE TM31 Building Logbook.doc
- P22 Stage 3 MEP Design Processes Metering Strategy.

The above documents are set out in Appendix 6l: Government Soft Landings.

The best practice principles of Building Information Modelling (BIM) and the Soft Landings Programme are embedded at every stage to deliver a high quality, safe and efficient health facility.

The GSL core team incorporates.

- Denver McGowan, Graham Construction - Soft Landings Champion.
- Sandy Duckson, Graham Construction - Soft Landings Coordinator.
- Muhammad Syed, Trust – Project Manager.
- Trust – Functional Commissioning Manager[21].

The Soft Landings Champion and Soft Landings Co-ordinator will facilitate the successful delivery of the Soft Landings Programme over the life of the Project. Specialists have been recruited by Graham to support all technical commissioning activities. This will help to ensure a structured approach to bringing the buildings into use. In addition, the Functional Commissioning Manager will liaise with clinical teams to ensure that the functional commissioning of the theatre building is aligned.

During the period 29th May - 19th June 2023, the Trust will undertake its operational commissioning activities. These will include.

- Equipment commissioning.
- Training and familiarisation.
- Relevant theatre plate testing.

[21] The Trust are currently recruiting a Functional Commissioning Manager. In the interim Muhammad Syed, Project Manager will undertake this role.

- Arrange all necessary deep cleaning.

The national guidance on COVID-19 and HTMs will need to be adhered to, including any recent guidance which has come into force, where applicable.

6.12 Health Gateway (project)

The impacts/risks associated with the project have been scored against the risk potential assessment (RPA) for projects. The RPA score is low. At OBC stage, the RPA was submitted to the Department of Health and Social Care. The FBC RPA is attached at Appendix 6m: Gateway RPA.

Further reviews are planned through the remaining Gates.

6.13 NHS Premises Assurance Model

The Trust's NHS Premises Assurance Model (PAM) is set out Appendix 6n: NHS Premises Assurance Model.

The PAM provides a nationally consistent basis for assurance for trust boards, on regulatory and statutory requirements relating to their estate and related services and NHS constitution.

The NHS PAM bridges the space between NHS boards and the operational detail of its day-to-day estates and facilities operations. The model can be used as a prompt for further investigation, and to stimulate better-informed dialogue as to how the premises can be more efficiently used, more effectively managed, and contribute to the overall strategic objectives of the organisation.

The Trust Director of Estates and Facilities has completed the PAM which was approved by the Trust Board on 13 July 2021. The PAM in Appendix 6o: P22 Pre-occupancy illustrates that there are further actions that require completion to bring the assessment scores to a 'Good' rating. The main improvement areas fall into the following groups:

- Risk assessments including additional survey work.
- Training and appointments.
- Costed action Plans.
- Review.
- Additional maintenance.
- Replacement and upgrades for safety and resilience.

The Trust are progressing the above actions.

In general, the PAM Assessment has improved significantly since the last assessment during 2018, with the most significant areas of improvement being implementation of the PFI Settlement Agreement at Peterborough City Hospital (PCH) and the establishment of better information systems, external audit and review in the retained estate. Whilst many action plans have now been completed since the last assessment, covering fire safety and the redevelopment of Hinchingbrooke Hospital, more detailed, costed and funded plans are required to make these action plans more robust.

6.14 Project Handover

Once the new building has been commissioned and handed over for operational use, the Trust Project Manager will provide a Project Closure Report in accordance with the principles of Prince2 Methodology to ensure the project is appropriately closed and handed over to "Business as usual". The Commissioning Manager will ensure that Government Soft Landings is adhered to in conjunction with the P22 requirement.

6.15 Post Project Evaluation

Post-project evaluation (PPE) will assess how well benefits have been realised, if there are any further actions required to enable greater delivery of benefits and any lessons learnt to be shared on future projects of a similar nature.

The P22 Pre and Post Occupancy Evaluation toolkit will be utilised. Graham Construction will work with the Trust and their PSCP team to complete these at a local level to deliver the Pre and Post Occupancy Evaluation stages. The Trust recognises that to complete the P22 POE, input will be required from a number of disciplines including Patient, Carer, Staff and Building User Surveys and metrics, with the PSCP Champion and Trust lead.

The Trust has undertaken a pre-occupancy evaluation which supports the establishment of the targets and metrics against which the project outcomes will be evaluated once in use. This is set out in Appendix 6o: P22 Pre-occupancy .

An initial Post-Occupancy Review will be carried out six months following the completion of the works and a comprehensive Post-Project Review undertaken two years after completion to review the building in operation and benefits realisation. To gain maximum value from the PPE, this will include representatives from each of the major project stakeholder groups.

A budget of £5k has been allocated to the Post-Occupancy Review and £15k for the Post-Project Review. Both reviews will be undertaken by an independent advisor.

The purpose of Post-Project Evaluation (PPE) is twofold:

- To improve project delivery through lessons learnt during the project delivery phase. This is often referred to as the 'Project Occupancy Review' (POR). The POR is linked to Gateway Review (operations review and benefits realisation).
- To appraise whether the project has delivered its anticipated outcomes and benefits. This is often referred to as the 'Post Project Review' (PPR).

The POR will be undertaken in December 2023 which is circa two months after the "go live" (reference Table 1-16).

The Post-Project Review (PPR) will be undertaken in June 2025 which is two years from the "go live" (reference Table 1-16). This will assess that the service is running and delivering the anticipated benefits.

In tandem the Trust will complete the NHSEI PPE requirements. The Project Implementation Review (PIR) will be undertaken in August 2023 to capture lessons learnt.

The Post-Evaluation Review (PER) for reviewing how well the service is running and delivering its anticipated benefits will be undertaken in April 2024.

6.16 Stakeholder Communications & Engagement

The Trust has a Communications and Engagement Strategy 2021-24. This communications and engagement strategy sets out the Trust's approach to communicating all activity undertaken in the next three years in relation to the Redevelopment Programme for Hinchingbrooke Hospital. The Trust recognises that timely and effective communications is fundamental to how it engages with patient, staff and partners and plays a vital role in improving patient and staff experience. Similarly, communications that does not meet the needs of the audience, can have a detrimental impact on staff morale, public confidence and organisational reputation.

The Trust is committed to improving how it communicates and engages with all stakeholders and understands the importance of clear, open, timely, responsive and relevant communications and meaningful engagement.

The strategy describes the Trust's objectives in communicating and engaging with its stakeholders throughout the Hinchingbrooke Hospital Redevelopment Programme (HHRP). It also highlights the communications and engagement tools, channels and processes it uses and how it will measure and review their effectiveness. It is supported by a communications plan, which sets out the tactical approach for communications and engagement activity. As the HHRP Communications & Engagement Strategy spans the next three years, the communications plan will be regularly reviewed and will evolve as required to ensure it continues to meet any changes in the Trust's operational environment.

The Trust has undertaken the following which are consistent with its strategy for this project. This includes:

- Stakeholder analysis – April 2021.
  - This outlines the key stakeholders and associated Power Interest matrix
- Communications & Engagement Action plan.
  - This sets out the Trust's plan and progress since 15 February and tasks for 2021.
- Theatres Bock Façade: Stakeholder engagement report dated 14 May 2021.
  - The Trust sought the views of a wide variety of key stakeholders to inform its choice of exterior façade for the new theatres block at Hinchingbrooke Hospital. This has been incorporated into the design of the preferred option: Option 1 : Do Minimum.

6.17 Clinical Engagement Approach

The Trust has engaged with clinicians and operational management throughout the design process. As outlined in Section 4.6.8 of the Commercial Case, all 1:200 and 1:50 drawings associated with the new Main Theatres Building have been reviewed and signed off by clinicians and operational management. These are set out in Appendix 4c: Main Theatres Building: Drawings & Sign off 1:200 & 1:50s.

These are categorised as follows:

- Theatres.
- Admissions.
- Recovery.
- Resuscitation.
- Support.
- Staff.

The drawings have been validated and signed off by:

- F. Di Franco, Divisional Director Surgery (20 April 2021).
- K. Hopcraft, Divisional Operations Director – Surgery (20 April 2021).
- A. Patel, Consultant Surgeon (26 April 2021).
- S. Somers, Divisional Operations Manager – Theatres, Anaesthetics & Critical Care, Pain Management Service. (15 April 2021).
- S. Forder, Associate Divisional Director – Theatres, Critical Care & Pain (26 April 2021).
- J. Knaepel, Theatre Manager.

6.18 Quality Strategy

The Trust's Quality Strategy is available at Appendix 6q: Quality strategy.

6.19 Quality Impact Assessment

The Trust follows good practice guidelines for equality impact assessments, conducting them regularly to ensure that measures aimed at cost improvement do not impact on the quality of care.

The QIA is provided in Appendix 6r: Quality Impact Assessment and shows no negative impacts and some positive impacts in relation to this project.

6.20 Equality and Diversity Impact Assessment

The Trust has developed an Equality & Freedom to Speak Up Impact (EFSUIA) process which it has adopted. The Trust completed an assessment on 17 June 2021 with zeros across all areas. This is set out in Appendix 6s: Equality & Diversity Assessment.

6.21 RACI

The Trust has completed a RACI matrix for the project. For each stage of the project, this records who is:

- Responsible.
- Accountable.
- Consulted.
- Informed.

The RACI matrix is available at Appendix 6t: RACI Matrix.

6.22 Learning Log

As part of the FBC, NWAFT has been building on the discussions that took place with other Trusts in the development of the OBC. Whilst the Trust views this as a significant area of opportunity, the recent COVID-19 challenge has compromised the feasibility of on-site visits and wider engagement.

The Trust undertook a virtual visit to Chase Farm Hospital including member of the Trust Design & Construction workstream and clinical/ operational representatives. The aim was to understand and discuss the lessons they had learned and benefits which could be applied to the Main Theatres scheme. Chase Farm Hospital noted that to achieve the benefits of shared working from the use of Barn operating theatres the Trust required at least two Barn theatres. The maximum potential within the new Main Theatres facility is two Barn theatres. In the view of the clinical team, this does not warrant the adoption of the Barn theatres concept at this stage. However, the Trust will revisit this in the future. The virtual visit was therefore helpful to the Trust team in understanding what innovations were transferable to the Hinchingbrooke setting based on the evidence presented.

The Trust also considered the application of robotics. The development could incorporate robotics in the future, but this will be subject to a separate business case.

The Trust has also been reviewing the Royal College of Surgeons Best Practice and applying GIRFT.

6.23 Approvals Required

The FBC will be submitted to NHSEI on 16 August 2021 following Trust Board approval on the 10 August 2021. The ICS Strategy Group was briefed on 21 July 2021 and the key elements of the draft FBC will be presented to the ICS Partnership Board on the 28th July 2021. Letters of support from the Joint Accountable Officers of the ICS and CCG will be sought prior to submission to NHSEI. The Trust is aiming for JISC approval on 18 November 2021 to expedite the completion of the project.

6.24 Summary of Management Case

The Management Case for this FBC has set out clearly the proposals for how the project will be implemented and managed effectively throughout its lifecycle. It has set out the project methodology and governance arrangements including roles and responsibilities.

The project has clear support through its governance processes and structure and the Trust has a commitment to ensure the project continues to be regularly scrutinised through its reporting. Change control measures are described in the Project Plan, costed Risk Register and Benefits Realisation Plan have been developed.

The Trust will continue to engage with its stakeholders as the project is delivered to ensure the developments deliver the benefits associated with the project.

Working with the PSCP, the Trust will ensure Post Project Evaluation measures are undertaken as part of the ongoing quality procedures required for this project.

System partners will continue to be briefed on progress in obtaining FBC approval and the process going forwards to construction and completion.

Appendix 2a: Development Control Plan

Appendix 2b: Completed Fundamental Criteria & Estates Checklists

Appendix 2c: OBC Requirements & Conditions

Appendix 2d: Letter of Commissioner & ICS support

Introduction

Appendix 2e: NHSEI RACC Report

Appendix 2f: Fit for Future STP Plan

Appendix 2g: C&P ICS Draft Development Plan

Introduction

Appendix 2h: STP Letter of Support 2018

Introduction

Appendix 2i: Clinical Strategy

Introduction

Appendix 2j: NWAFT Estates Strategy (+ Addendum)

Introduction

Appendix 2k: 6 Facet

Appendix 2l: Theatres Activity & Capacity Analysis

Appendix 2m: Trust Board Minute

Appendix 2n: Completed NHS I Checklist

Introduction

Appendix 3a: Economic Analysis FBC CiA & Databook

Appendix 3b: CIM FBC capital forms - Forms 1-4 (incl Optimism Bias Schedules)

Introduction

Appendix 3c: NWA – Main Theatres Life cycle

Appendix 3d: Project Construction Quantified Risk – Planning Contingency

Introduction

Appendix 4a: Main Theatres Building: Full Planning Permission

Introduction

Appendix 4b: Main Theatres Building: Schedule of accommodation

Introduction

Appendix 4c: Main Theatres Building: Drawings & Sign off 1:200 & 1:50s

Introduction

Appendix 4d: Main Theatres Building: Schedule of Design Derogation

Introduction

Appendix 4e: Main Theatres Building: Infection Control

Introduction

Appendix 4f: Main Theatres Building: Statement of Compliance (Fire Safety)

Introduction

Appendix 4g: Main Theatres Building: Design Appraisal Toolkit (DAT)

Introduction

Appendix 4h: Main Theatres Building: BREEAM – Interim Design Certificate

Introduction

Appendix 4i: Main Theatres Building: Security Assessment: Secure by Design

Introduction

Appendix 4j: Main Theatres Building: Cost Advisors' Report

Introduction

Appendix 4k: Main Theatres Building: Equipment Schedule

Introduction

Appendix 4I: PFI Variation

Introduction

Appendix 4m: Main Theatres Building: Modern Methods of Construction

Introduction

Appendix 4n: Enabling: Planning Permission

Appendix 4o: Enabling: Cost Advisors' Report

Appendix 4p: Enabling: Schedule of Accommodation

Appendix 4q: Enabling: Drawings 1:50s’

Appendix 4r: Operating Theatres Services Business Continuity Plan

Appendix 4s: Green Plan Development Strategy

Appendix 4t: Green Travel Plan

Appendix 4u: Car Parking Management Plan

Appendix 4v: Envision Net Carbon Zero Assessment

Appendix 5a: Emergency Loan Applications

Appendix 5b: Impairment Report – Gerald Eve

Introduction

Appendix 6a: Project Execution Plan Phase 2 Main Theatres

Appendix 6b: Project Initiation Document Phase 2 Main Theatres

Introduction

Appendix 6c: Steering Group & Project Team Terms of Reference

Introduction

Appendix 6d: SRO & PMO Biographies

Appendix 6e: PSCP: Main Theatres Building – Building Programme

Introduction

Appendix 6f: Enabling Works Programme

Introduction

Appendix 6g: Risk Register

Introduction

Appendix 6h: Benefits Realisation Plan

Introduction

Appendix 6i: Risk Management Plan

Introduction

Appendix 6j: Workforce Strategy

Introduction

Appendix 6k: BIM Execution Plan

Introduction

Appendix 6l: Government Soft Landings

Introduction

Appendix 6m: Gateway RPA

Introduction

Appendix 6n: NHS Premises Assurance Model

Introduction

Appendix 6o: P22 Pre-occupancy assessment

Introduction

Appendix 6p: Stakeholder Engagement & Communications Reports

Appendix 6q: Quality strategy

Introduction

Appendix 6r: Quality Impact Assessment

Appendix 6s: Equality & Diversity Assessment

Introduction

Appendix 6t: RACI Matrix

Introduction

[Back cover]