



**The Shrewsbury and Telford NHS
Hospital Trust – Sustainable
Services Programme Business
Case Review**

DRAFT FOR DISCUSSION

Sustainable Services Programme Business Case review

4 November 2016

Dear Neil,

SATH Sustainable Services Programme - Outline Business Case Review

Further to our Letter of Appointment dated 17 October 2016, please find herein the results of our review of the Strategic Outline Case ("SOC") and the Outline Business Case ("OBC") Options Appraisal in relation to the Trust's Sustainable Services Programme (the "Project" or "SSP").

As agreed with you in our discussions and engagement letter, this document comprises the findings of our review on the following aspects of the OBC:

- Review of the SSP Business Case focusing on the procedures put in place in respect of its development and its supporting assumptions and financials;
- Review the assumptions and classifications underpinning the split of reconfiguration spend and backlog maintenance spend in respect of the Project;
- Perform benchmarking analysis on the Business Case to appraise the appropriateness of the SSP Business Case; and
- Perform interviews with key stakeholders involved in the development of the SSP Business Case to assess the project management arrangements in place.

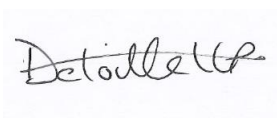
As discussed with you and outlined in our scope, our focus has been on producing a summary document, to assess whether then OBC has been developed in line with standard procedures and in line with accepted 'good practice'. In addition commentary has been provided on the underlying costs and assumptions used in shaping the options identified for the delivery of SSP and the robustness of the approach undertaken.

This document is confidential and prepared solely for your information and that of other beneficiaries of our advice listed in our engagement letter. Therefore you should not, refer to or use our name or this document for any other purpose, disclose them or refer to them in any prospectus or other document, or make them available or communicate them to any other party.

In any event, no other party is entitled to rely on our document for any purpose whatsoever and thus we accept no liability to any other party who is shown or gains access to this document.

Should you wish to explore any specific themes, next steps or potential opportunities identified, please do not hesitate to let us know.

Yours sincerely



Deloitte LLP

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1 Executive Summary

1.1 Setting the scene

The Shrewsbury and Telford Hospital NHS Trust (“SaTH”, “the Trust”) has recently commissioned the development of an options appraisal analysis in respect of its SSP, which is known internally as the “Sustainable Services” programme. The Trust operates two hospital sites in the Shropshire area, comprising the Princess Royal Hospital in Telford and the Shrewsbury Royal Hospital.

The Trust has experience a number of capacity constraints at both of these sites and particularly in Accident and Emergency (“A&E”), Critical Care and Acute Medicine. The Sustainable Services or SSP review has been commissioned to identify methods of overcoming these challenges and providing a safer and more sustainable service to patients.

The SSP Programme was launched in 2013, with the Trust working in conjunction with a number of local partners comprising: the two Clinical Commissioning Groups (“CCGs”), Shropshire Community Healthcare NHS Trust (“ShropComm”) and Powys Teaching Health Board (“PTHB”). Under the SSP programme, all partners agreed to engage fully with their patient populations and their health, social care and voluntary sector partners to shape a sustainable long-term patient care offer. As part of this, an overarching clinical model was developed in 2014, which became the basis for the Trust engaging in an options appraisal on its existing clinical offer and model.

A full options appraisal of the short-listed options was conducted in September 2015. Following conclusion of this options appraisal, two key pieces of work were identified as next stages in identifying the most appropriate delivery model, which included a system wide financial deficit reduction plan and the development of a business case to address the workforce challenges the Trust has been experiencing.

Following this, a Strategic Outline Case (“SOC”) was developed and approved by the Trust Board in March 2016.

The Outline Business Case (“OBC”) was then developed, building upon the SOC and including further project developments.

This review focuses upon the approved SOC and the Draft OBC Version 0.4 dated 27/10/16.

1.2 Scope of review

The Trust has commissioned this review to analyse the effectiveness and robustness of the Trust’s processes in developing the SSP Business Case. This has included reviewing the following areas:

- Reviewing the process undertaken in respect of developing the Business Case itself, including reviewing the internal and external governance arrangements; the approval processes and project management arrangements;
- Reviewing the approach to developing the assumptions underpinning the Trust’s Business Case, including referring back to any external advice sought and third party benchmarks (and specifically in respect of backlog maintenance assumptions);
- Identifying the Trust’s risk management processes and identified risks on filing against the Business Case’s relevant milestones; and
- Performing interviews with key project stakeholders at the Trust to understand the process adopted.

1.3 Summary findings

The findings from the review performed are as follows:

Business Case Process

The SOC and OBC documents closely adhere to the guidance and contents as set out in the Green Book with a few minor omissions. Given that the project is currently at the draft OBC stage the following recommendations should be considered in order to ensure that the final OBC is fully compliant to the Green Book guidance and considered by the Trust when further developing the Full Business Case ("FBC"):

- Clearly defined Spending Objectives of the Project: Within the OBC the spending objectives are only covered at a high level within the Strategic Case. Per Green Book guidance these objectives should be clearly defined and 'SMART'. It is suggested that the Trust develop these objectives in more detail.
- Constraints and dependencies: Within the Strategic Case the constraints, actions or developments required of others (i.e. externally imposed) should be outlined clearly.
- Critical Success Factors: Whilst the non-financial and financial evaluation criteria is clearly set out within the OBC there is not a clear link to 'Critical Success Factors ("CSF") within the document. It is suggested that the evaluation criteria be reworked to outline clear CSF in line with Green Book guidance.
- Personnel implications: Consideration of the potential TUPE considerations of the proposal should be further developed and a statement included within the Commercial Case in relation to this.
- Accounting Treatment: Whilst the Trust has developed a detailed Financial Case, more information at the FBC will be required on the potential accounting impacts of these arrangements on the Trust's financial statements. From discussions with the Trust the final accounting treatment will be dependent upon the result of procurement and funding arrangements – hence at the current time the final answer around accounting treatment is not clear. It is suggested however that a statement is included within the OBC to this effect and also outline the most likely accounting treatment and work undertaken by the Trust to date in relation to this issue

Options Appraisal Approach

Non-Financial

- The evaluation panel selected and approved to assess the options comprised of a wide variety of skills, backgrounds and organisations with appropriate experience within the health sector. This enabled the assessment to be performed from numerous perspectives and a balanced result to be reached based on the evaluation criteria.
- Evaluation criteria and weightings were developed and agreed by all parties involved. The assessment criteria developed is consistent with that observed on other similar NHS projects and in line with previous approaches taken by the Trust.
- The evaluation process followed was in line with the standard Green Book approach, starting with a long list and moving to and assessing a short list of viable options.
- An appropriate level of sensitivity/switching point analysis was performed on the result of the non-financial evaluation.

Financial

- The evaluation process followed was in line with the standard Green Book approach, fully costing each of the options over the project life and assessing on an Net Present Value (“NPV”) and Equivalent Annual Cost (“EAC”) basis.
- Technical specialists/Cost Consultants were drawn upon to develop cost and assumptions for each option at the appropriate juncture.
- Baseline parameters developed and outlined in the OBC were appropriate and in line with Green Book guidance.
- An appropriate level of sensitivity analysis was performed on the result of the financial evaluation.

Options Appraisal approach and Key Assumptions

- The approach taken to the Options Appraisal exercise is in line with the prescribed Green Book approach.
- The macro assumptions applied to each option are in line with Green Book guidance and appropriate give the stage of the project.
- Specialist cost consultants/technical advisers were engaged at the appropriate point to develop the cost options.
- The assumptions underpinning the construction costs of the option are broadly consistent with equivalent benchmarks on similar NHS construction projects.
- The approach adopted in developing the lifecycle assumptions for each option appear appropriate at OBC stage and have been based on current Trust costs and accounting/asset assumptions. As the project progresses into procurement it is recommended that a more detailed lifecycle profile is developed based upon the specific design, equipment requirements and level of specification. This will act as a useful comparator when assessing contractor designs during procurement.
- The approach adopted in estimating the operating cost for each option appears reasonable and has been based on existing costs and anticipated staffing requirements anticipated by the Trust. It is recommended that as the solution design progresses a more detailed operating cost profile is developed based upon the specific design, equipment requirements and level of specification.
- The approach adopted in estimating the ongoing savings associated with each option appears reasonable and has been based on existing costs and anticipated staffing requirements associated with the service reconfiguration of each option. It is recommended that as the solution design progresses a more detailed revenue savings profile is developed based upon the specific design and configuration of services. This will act as a useful comparator when assessing contractor designs during procurement and for monitoring and capturing benefits realised as a result of delivering the project.

Assessment of Risk and Risk Management

- The approach to risk management and information presented within the document detail an appropriate level of consideration given the stage of the project. It is recommended that the Trust continue to identify, record and assess project risk regularly throughout the project.
- Consideration should be given to the use of specialists (i.e. insurance, legal, technical) if/when related risk arise.
- As the project progresses consideration should be given to undertaking an exercise whereby risks and impacts are quantified where possible. This will provide the Trust with a different viewpoint and greater clarity around the risk management process.

1.4 Report structure

This document sets out the findings of the review in the context of the brief. Following this introduction, it comprises the following sections:

- **Section 2: Business Case Process** – This section details and reviews the processes adopted by the Trust in developing the SSP Business Case and their appropriateness. This section comprises an analysis of the Trust’s project governance processes and the approach adopted in respect of the options appraisal and the development of the Business Case itself.
- **Section 3: Key assumptions** - This section identifies the key assumptions used in the Business Case and identifies the sources of these assumptions. Included within section is an analysis of these key assumptions back to third party benchmark data.
- **Section 4: Assessment of risks** – This section outlines and identifies the risks recorded by the Trust, as well as the general risk management processes adopted.

2 Business Case process

2.1 Introduction

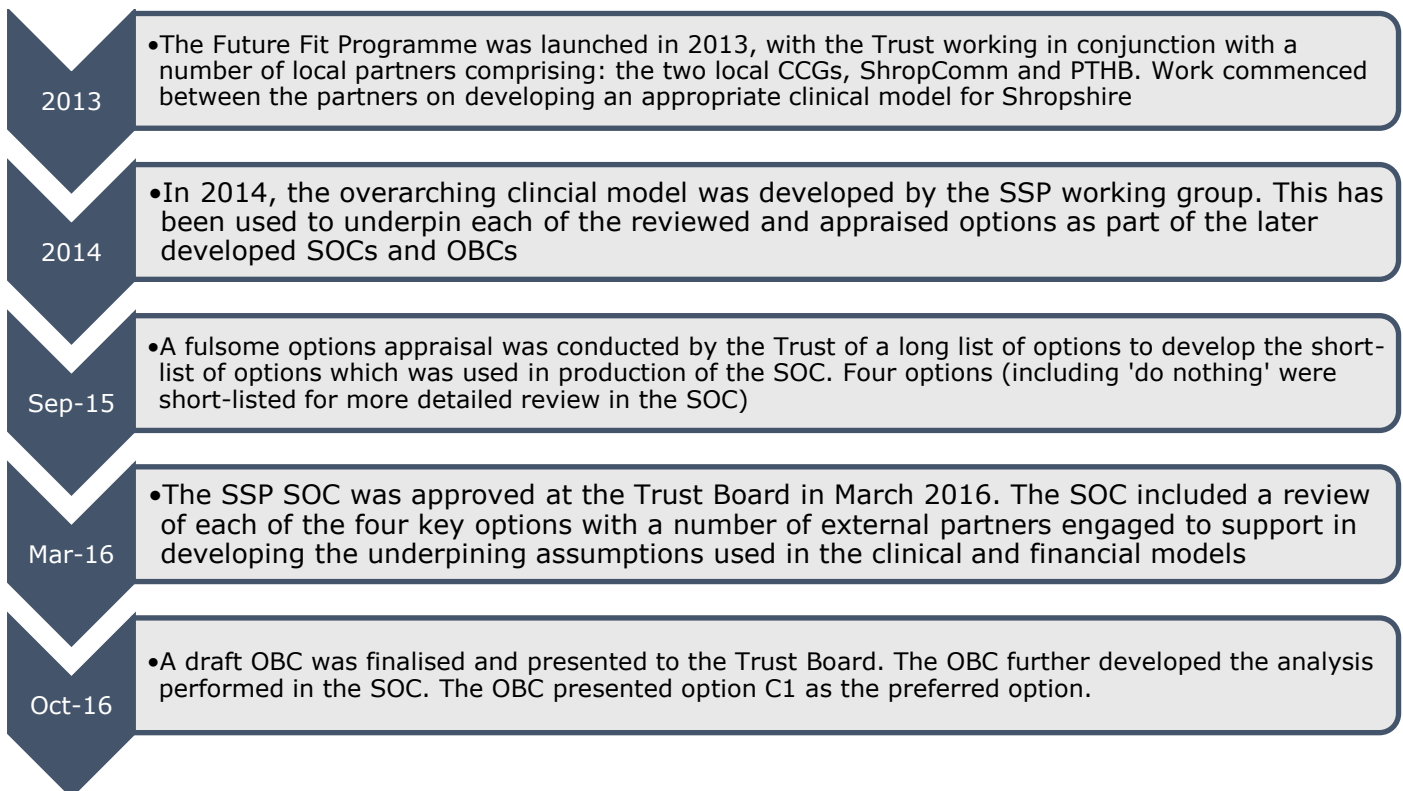
The SSP Programme was launched in 2013, with the Trust working in conjunction with a number of local partners comprising: the two local CCGs, ShropComm and PTHB. Under the SSP programme, all partners agreed to engage fully with their patient populations and their health, social care and voluntary sector partners to shape a sustainable long-term patient care offer for Shropshire.

Given significant resourcing constraints within the Shropshire, and wider national, Health Economy, the Programme looks to assess and potentially rationalise the clinical service model across Shropshire’s two Hospitals: The Royal Shrewsbury Hospital (“RSH”) and the Princess Royal Hospital in Telford (“PRH”).

Within this section, the process underpinning the SSP Programme and supporting Business Case is reviewed and analysed. This assesses the processes adopted by the Trust in developing the initial long list of options, their approach to short-listing these options for the purposes of SOC and subsequent development of the options in the OBC. This section will focus on the internal governance processes, external engagement and wider Trust analysis on the SSP Programme.

2.2 Chronology

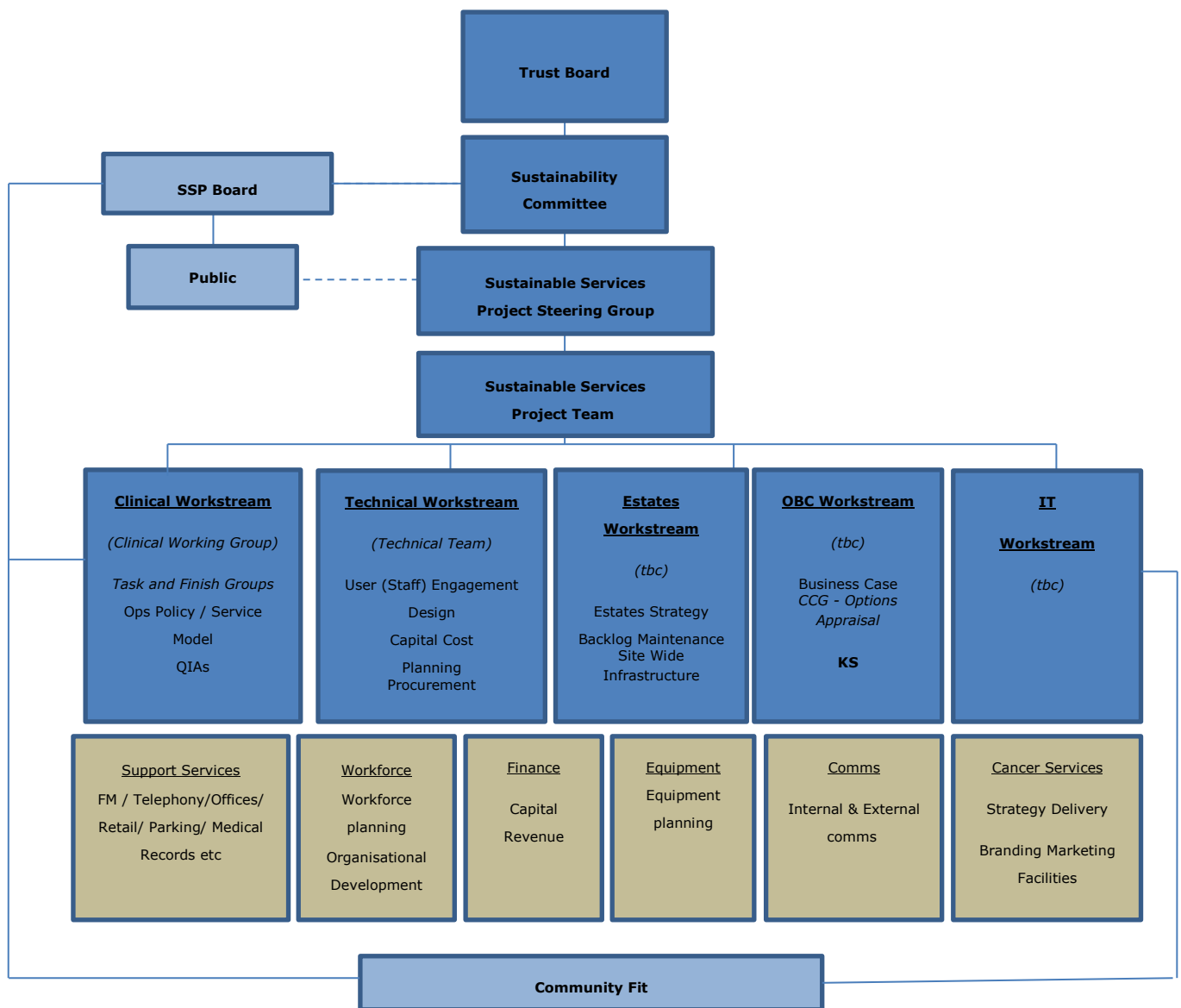
As identified above, the SSP Programme was launched in 2013, which has led to the filing and development of an OBC in 2016. The key milestones and chronology of events is detailed below.



2.3 Business Case process management

In order to facilitate the effective deployment and development of the SSP Business Case, the Trust has embedded an internal governance process for the management of this specific programme. The Trust’s Project Management Office (“PMO”) function has been tasked with ensuring the process is managed robustly.

The Trust has ensured that the project team comprises a number of designated, cross-function work streams, which focus on specific areas of the Trust’s activities. The governance structure for the project is outlined below.



As presented above, the working group to support the development of the programme cuts across a number of different functions, each with specific responsibilities and accountabilities.

The Project has a direct reporting line to the Trust Board through its Sustainable Services Committee and its Project Steering Group. This is the main decision-making forum for the Project. The Project is sponsored by a Trust Executive, Neil Nisbet the Finance Director who is also the Project Director. Kate Shaw is the Project Manager for the project. The Trust's Chief Executive is the Senior Responsible Owner.

The members of the Steering Group comprise members of the Executive Team, Clinical Directors, Care Group Managers and representation from Senior Nurses. Project meetings are held on a monthly basis.

Supporting the Steering Group is the project team, which monitors the "Action Tracker". This lists key actions and activities which are being undertaken to support the programme. This tracker is presented on a monthly basis at the Programme Board and Core Group meetings. .

The Trust has included external stakeholders within its governance structure, such as the general public. The extent of involvement with wider, external stakeholders is reviewed later.

Given the regional importance of the programme, the Trust has worked closely with a number of external partners in developing both the initial proposals and the development of the business case, itself. The project was inceptioned in 2013, with the two local CCGs, ShropComm and PTHB.

Throughout the formation of the propositions, these external partners have been called upon and been instrumental in the development of the clinical model and also the development of the business case itself. Each of these parties played a key role in appraising each of the short-listed options (as referenced later).

2.4 Developing the Strategic Outline Case ("SOC")

The SOC was approved at Trust Board in March 2016. The SOC contained a number of key areas for consideration in forming the Trust's viewpoints on the appraised options.

The SOC was split into 6 main sections:

- Strategic context;
- Health Service need;
- Development of options;
- The potential solution;
- Affordability; and
- Timetable and deliverability.

These sections were further supplemented with an introduction, an overview of the "problem" the Trust was trying to solve and a conclusion. The SOC was also supported by a number of other Appendices including information regarding the option identification process, site designs and the risk register.

Each of the main sections of the SOC are appraised within this section in terms of content and their development. Each is reviewed against Her Majesty's Treasury's Green Book ("HMTGB") guidance and the 5 case guidance. The HMTGB was developed to ensure value for money ("VfM") on public expenditure in respect of capital programmes.

2.4.1 Strategic Case

The Strategic Context and Health Service Need sections of the report largely sets out the Strategic Case for the proposals. In addition, as an Appendix to the SOC, the Trust provided Appendix 2b which provided more narrative on the wider context behind the proposals and its need.

Based on the HMTGB guidance, presented below are key components which would be expected as part of the Strategic Case. These are then mapped to where it has been included as part of the SOC.

Strategic Case	Key components	SOC Comments	OBC v0.4 Comments
Organisational Overview	<ul style="list-style-type: none"> Strategic vision, goals, business aims and service objectives Current activities and services, including key stakeholders and customers Organisational structure, staff numbers, business turnover and geographical position Existing financial and funding arrangements 	<ul style="list-style-type: none"> The vision, goals and aims for the project are covered in sufficient detail in the SOC. There is a clear strategic context included within the SOC to support the proposals. Current activity levels, service provision and stakeholder/customers are set out in the SOC, including the capacity constraints the Trust is currently experiencing. Current organisational structure and demographics is included in reference to the current workforce and also the geographical position and local health economic. Reference is made to the current financial pressures that the Trust is experiencing. 	<ul style="list-style-type: none"> The vision, goals and aims for the project have been further updated from the SOC position. There is a clear strategic context included within the SOC to support the proposals. Current activity levels, service provision and stakeholder/customers are set out in the OBC. Current organisational structure and demographics is included in reference to the current workforce and also the geographical position and local health economic. Updated reference is made to the current financial pressures that the Trust is experiencing.
Current Business Strategies	<ul style="list-style-type: none"> How the proposed scheme fits within, supports, and promotes the strategy Scheme's ability to achieve business goals, strategic aims, and plans of organisation Business goals of the organisation 	<ul style="list-style-type: none"> The case refers to principles and objectives developed for the project however, these principles are project focused and do not link in to the wider organisational strategy or business goals. Further information is required to make this link between the project objectives and organisational objectives. 	<ul style="list-style-type: none"> The OBC refers to principles and objectives developed for the project at SOC and further developed at OBC stage.
Spending Objectives	<ul style="list-style-type: none"> Defining spending objectives in terms of desired outcomes – objectives should be specific, measurable, achievable, relevant, and time-constrained ("SMART") Customer focused and distinguishable from means of provision – focus on 	<ul style="list-style-type: none"> Spending objectives are only touched upon at a very high level. No SMART spending objectives have been included within the case. 	<ul style="list-style-type: none"> As with the SOC document spending objectives are only covered at a high level. No SMART spending objectives have been included within the OBC.

Strategic Case	Key components	SOC Comments	OBC v0.4 Comments
	<p>achievement of outcomes and not inputs to a potential project</p>		
Existing Arrangements	<ul style="list-style-type: none"> Explains how services are currently organised, provided and supplied Details about stakeholders, customers and associated throughput and turnover Snapshot of 'where we are now' and the basis for 'do nothing' 	<ul style="list-style-type: none"> The case explains clearly the current service provision at each of the hospital sites and also within the local health economy. Local stakeholders are clearly outlined in the SOC. These have been included as representatives in the options appraisal scoring. The case describes clearly the 'do minimum' case. 	<ul style="list-style-type: none"> The OBC builds upon the SOC position outlining the necessary arrangements in appropriate detail.
Business Needs (current and future)	<ul style="list-style-type: none"> Identifies difference between 'where we are now' and 'where we want to be' Highlights problems, difficulties and inadequacies associated with status quo Confirmation of continued need for business operations Projections of nature and level of demand for future services Summary of user requirements, clearly distinguishing between current and future 	<ul style="list-style-type: none"> There is significant disclosure made on the current 'problem' facing the Local Health Economy and where the Trust will need to be. The case sets out in sufficient detail the issues/inadequacies with the status quo. The Trust identifies at a high level the impact of future service provision, this should be detailed further as part of the OBC. User requirements are set out at a macro Health Economy level. 	<ul style="list-style-type: none"> The OBC builds upon the SOC position outlining the necessary arrangements in appropriate detail.
Potential Scope	<ul style="list-style-type: none"> Scope of the project from the standpoint of the business, in terms of affected business areas, functionality, and organisation Sets boundaries and limitations of the project Options within this scope will be assessed within the Economic Case 	<ul style="list-style-type: none"> The scope of the project is clearly outlined at the start of the SOC. The SOC outlines the elements of the Local Health Economy and services affected. The SOC outlines in detail the approach to developing the Long and Short list of options. Further detail is included within the Options Appraisal document, which forms part of the draft OBC. 	<ul style="list-style-type: none"> The scope of the project is clearly outlined within the OBC. The OBC outlines the elements of the Local Health Economy and services affected. The OBC outlines in detail the approach to developing the Long and Short list of options and the options appraisal process.
Benefits and Risks	<ul style="list-style-type: none"> Cash releasing benefits, financial but non-cash releasing benefits, quantifiable, and non-quantifiable benefits 	<ul style="list-style-type: none"> Benefits of the project are covered at a very high level within the SOC. The Options Appraisal document includes further detail of the potential benefits associated. At both the SOC and Options Appraisal stage, the Trust has included a Risk Register associated with the project. 	<ul style="list-style-type: none"> Benefits of the project are set out in appropriate detail within the OBC. The risk register has been carried forward and updated from the SOC position.

Strategic Case	Key components	SOC Comments	OBC v0.4 Comments
	<ul style="list-style-type: none"> Benefits and risks should be direct and indirect to the organisation 		
Constraints and Dependencies	<ul style="list-style-type: none"> Constraints, actions or developments required of others (i.e. externally imposed) if the ultimate success of the project is dependent on them 	<ul style="list-style-type: none"> Constraints and dependencies of the project have not been outlined clearly in the SOC. 	<ul style="list-style-type: none"> Constraints and dependencies of the project have not been outlined clearly in the OBC.

2.4.2 Economic Case

The Economic Case sets the parameters for the programme. The parameters are more broadly defined in the SOC given the project being at a more developmental stage. The economic parameters are further defined as part of the OBC Options Appraisal document.

Economic Case	Key Components	SOC Comments	OBC v0.4 Comments
Critical Success Factors	<ul style="list-style-type: none"> Strategic fit and business needs Potential VFM Potential achievability Supply-side capacity and capability Potential affordability 	<ul style="list-style-type: none"> Critical Success Factors have not been detailed clearly in the SOC. Affordability of the project is considered within the Financial Case. 	<ul style="list-style-type: none"> Whilst the non-financial and financial evaluation criteria is clearly set out within the OBC there is not a clear link to 'Critical Success Factors ("CSF") within the document. It is suggested that the evaluation criteria be reworked to outline clear CSF in line with Green Book guidance.
Long Listed Options	<ul style="list-style-type: none"> As wide a range of options as possible that meet: spending objectives, potential scope, and benefits criteria, to create a Long List of Options Baseline option included 	<ul style="list-style-type: none"> A suitable long-list of options has been included and has been whittled down to the short list options appraisal. There appears to be appropriate review, approval and agreement of the short-listing of the long-listed options. Further, the basis used to short-list the options appears objective (i.e. that the impacts of the selected option do not produce a worse result than the 'do nothing' option. The appropriateness of the underpinning assumptions are reviewed in Section 3. The 'do nothing' option, whilst unlikely to represent a suitable way forward, has been included as a baseline. Given the short length of time between the SOC and the OBC the options appraisal exercise only required a minor update from SOC to OBC. 	
Short Listed Options	<ul style="list-style-type: none"> Include 'do nothing' option as a benchmark Reference project or outline public sector comparator 	<ul style="list-style-type: none"> As referenced above, the options appraisal process is discussed later in this Section. 	

Economic Case	Key Components	SOC Comments	OBC v0.4 Comments
	<ul style="list-style-type: none"> Two other realistic options based on realistic 'second choices' This narrowed list is the Short List of Options 		
Do Nothing Option	<ul style="list-style-type: none"> Included as the minimal or 'status quo' for reference 	<ul style="list-style-type: none"> The 'do nothing' option, whilst unlikely to represent a suitable way forward, has been included as a baseline. 	
Economic Appraisals of Costs and Benefits	<ul style="list-style-type: none"> Capital costs, revenue costs, fixed, variable, and step costs, opportunity costs, sunk costs, full economic costs, attributable costs, organisational development, avoided costs, contingent liabilities Cash releasing benefits ("CRB"), financial but non-cash-releasing benefits ("non-CRB"), quantifiable benefits ("QB"), non-quantifiable benefits (non-QB) 	<ul style="list-style-type: none"> The economic appraisal of costs and benefits is included within the SOC and the OBC Options Appraisal document. This is reviewed in Section 4 of this report. 	
Distributional Analysis	<ul style="list-style-type: none"> Capturing the effects on: age, gender, ethnic group, health, skill or location 	<ul style="list-style-type: none"> This analysis has not been included within the SOC. 	<ul style="list-style-type: none"> Per discussion with the Transformation Team this information is outlined in detail within the appendices to the final OBC.
Optimism Bias Adjustment	<ul style="list-style-type: none"> Explicit empirically-based adjustments to counteract optimism bias in the appraisal 	<ul style="list-style-type: none"> Optimism bias is referred to in the current OBC Options Appraisal document. This is reviewed in Section 3 of this report. 	
Risk Assessment	<ul style="list-style-type: none"> Assesses impact and likelihood of each risk with a score (excludes risks that can be measured financially) 	<ul style="list-style-type: none"> Risk assessment and management is reviewed in Section 4 of this report. 	
Sensitivity Analysis	<ul style="list-style-type: none"> Tests the vulnerability of options to unavoidable future uncertainties Tests robustness of the ranking of options 	<ul style="list-style-type: none"> A number of sensitivities are referred to in the current OBC Options Appraisal document. These are appraised in Section 3 of this report. 	

2.4.3 Commercial Case

The SOC also outlines a number of the elements of the Commercial Case. Given the nature of the project, these will be further developed during the course of the options appraisal process and movement to OBC/FBC. The commercial parameters are expected to be in an early stage of development at OBC.

Commercial Case	Key Components	SOC Comments	OBC v0.4 Comments
Procurement Strategy	<ul style="list-style-type: none"> • Focuses on how required services, supplies or works can best be procured (for example, whether open procurement) • Must follow regulations within the given jurisdiction • Criteria should cover: specification stage, selection stage, and award stage 	<ul style="list-style-type: none"> • The procurement strategy is discussed at a very high level in the SOC but only in the context of the funding strategies to be used (i.e. Public Dividend Capital). • As a single preferred option has not been selected, a distinct final procurement strategy has not been settled on at the SOC stage. 	<ul style="list-style-type: none"> • The procurement strategy within the OBC assumes a project funded by PDC and the appraisal/evaluation has been based upon this source of funding. The OBC does flag the current difficulties around shortage of capital available from such sources and states that alternatives and cost saving measures are being investigated. • The OBC states that the Department of Health’s ProCure 22 (“P22”), the default for NHS construction projects, is the preferred route for the delivery of the project.
Service Requirements	<ul style="list-style-type: none"> • Summarises required services and outputs and the potential implementation timescales required. This will include: <ul style="list-style-type: none"> – Scope of procurement – Required service streams – Specifications of required outputs and requirements to be met – Stakeholders and customers – Procurement options – Potential developments and further phases 	<ul style="list-style-type: none"> • There is limited discussion of the scope of procurement. The stakeholders and service streams are only outlined to the extent they are covered in the Strategic Case. 	<ul style="list-style-type: none"> • The contract structure, process, contracting framework and the benefits of choosing P22 are outlined in the OBC. • The OBC states that equipment procurement will be done via existing Trust arrangements unless it is demonstrated that alternative options can offer better value for money. • The extent of services and other commercial opportunities are highlighted within the OBC.
Charging Mechanism	<ul style="list-style-type: none"> • Consideration of mechanism to incentivise service provider to continue providing VFM over time 	<ul style="list-style-type: none"> • This section is not expressly covered within the SOC however expected sub-contents are more in reference to a capital build/infrastructure project. Consideration should however be given to how these sub- 	<ul style="list-style-type: none"> • The OBC states that the Department of Health’s ProCure 22 (“P22”) is the preferred route for the delivery of the project.

Commercial Case	Key Components	SOC Comments	OBC v0.4 Comments
	<ul style="list-style-type: none"> • Reflects optimum balance between risk and return • Split into pre-delivery, operational, and extension phases 	<p>contents apply to the project in terms of how value for money can be maintained over the life of the project.</p>	<ul style="list-style-type: none"> • The OBC outlines that the P22 framework incentivises savings and improved VFM via the Guaranteed Maximum Price (“GMP”) and post GMP savings mechanism.
Risk Transfer	<ul style="list-style-type: none"> • Risk is allocated to party best able to manage it • Optimal allocation over maximisation of risk transfer 	<ul style="list-style-type: none"> • The management of risk is discussed in Section 4 of this report. 	
Key Contractual Arrangements	<ul style="list-style-type: none"> • Duration of the contract and break clauses • Roles and responsibilities of service provider and procuring authority • Charging mechanism, prices, tariffs, incentive payments • Change control • Remedies in the event of failure • Treatment of intellectual property rights • Compliance with regulations • Operational and contract administration elements of terms and conditions • Arrangements for dispute resolution • Agreed allocation of risk 	<ul style="list-style-type: none"> • Key contractual arrangements are not covered in detail within the SOC. 	<ul style="list-style-type: none"> • The contractual arrangements and commercial issues relating to P22, the chosen procurement/contracting route, are set out in the OBC.
Personnel Implications	<ul style="list-style-type: none"> • Whether any Transfer of Undertakings/Employment Protection applies • Terms regarding subsequent transfers at market testing intervals • Descriptions of terms regarding Trade Union recognition • Requirements for broadly comparable pensions for staff upon transfer • Codes of practice in place for well-being and staff management 	<ul style="list-style-type: none"> • No references to TUPE or personnel implications are included within the SOC. 	<ul style="list-style-type: none"> • No references to TUPE or personnel implications are included within the OBC.

Commercial Case	Key Components	SOC Comments	OBC v0.4 Comments
Accountancy Treatment	<ul style="list-style-type: none"> States in whose balance sheet (public/private) the assets underpinning the service will be accounted for Explicitly declares the relevant accountancy standards 	<ul style="list-style-type: none"> Accounting treatment position is not included within the commercial case. No reference to applicable accountancy standards is included within the commercial case. 	<ul style="list-style-type: none"> Accounting treatment position is not included within the commercial case of the OBC. No reference to applicable accountancy standards is included within the OBC commercial case. It is suggested that commentary is included in the OBC outlining the steps being taken by the Trust to determine the correct/likely treatment even if the final answer is not known.

2.4.4 Financial Case

The Financial Case is critical to both the SOC and the OBC Options Appraisal document. In both instances, the Trust has developed and finessed its understanding over time.

The financial analysis of the Financial Case (i.e. review of third party benchmarks and comparators) is performed in Section 3 of this report.

Financial Case	Key Components	SOC Comments	OBC v0.4 Comments
Public Capital and Revenue Requirements	<ul style="list-style-type: none"> Capital and revenue consequences of the preferred option over the life span of service How this compares with the original capital ceiling for the scheme Any shortfall in capital and revenue requirements 	<ul style="list-style-type: none"> Capital and revenue consequences of each option are set out in the SOC and updated for the OBC Options Appraisal document. The analysis compares options on the basis of overall net returns. The OBC Options Appraisal document and SOC clearly rank the options selected. 	<ul style="list-style-type: none"> Capital and revenue consequences of each option are set out in the OBC and related appendices. The analysis compares options on the basis of overall net returns. The OBC and related Options Appraisal appendices clearly rank the options selected.
Impact on Balance Sheet	<ul style="list-style-type: none"> Assets that are an integral part of spending, should have their accounting treatment examined Independent opinion from the organisation’s auditors 	<ul style="list-style-type: none"> No reference to the potential accounting impact is included within the SOC or OBC Options Appraisal. No reference to an independent opinion from the organisation’s auditor is included. Even if no balance sheet impact is anticipated a section should be included stating the expected position. 	<ul style="list-style-type: none"> Accounting treatment position is not included within the commercial case of the OBC. No reference to applicable accountancy standards is included within the OBC commercial case. It is suggested that commentary is included in the OBC outlining the steps being taken by the Trust to

Financial Case	Key Components	SOC Comments	OBC v0.4 Comments
			determine the correct/likely treatment even if the final answer is not known.
Impact on Income and Expenditure Account	<ul style="list-style-type: none"> Assessed in current position and likely outcome should be fully recorded by a qualified accountant who understands the project and business 	<ul style="list-style-type: none"> A high level financial analysis has been included within the OBC Options Appraisal document and also within the SOC. Detailed workings sit behind each of these with more granular detail on the Income and Expenditure impacts. 	<ul style="list-style-type: none"> Financial analysis has been included within the OBC.
Overall Funding and Affordability	<ul style="list-style-type: none"> Balance sheet organised with necessary components Balance sheet of organisation in healthy state Organisation is solvent and not over-trading Cash flow of the organisation is sound Necessary allowance made for risks 	<ul style="list-style-type: none"> A high level analysis of the funding strategy is outlined in the SOC. 	<ul style="list-style-type: none"> Analysis of the funding strategy is outlined in the OBC.
Commissioner Support	<ul style="list-style-type: none"> Agreement obtained from the purchasers for the scheme in written form Letter should: demonstrate commissioners are actively involved, form acceptance of strategic aims, confirm financial costs, state margins of leeway, demonstrate suitable contingency arrangements in place, and is provided by the appropriate individual. 	<ul style="list-style-type: none"> Included as an Appendix to the SOC are signed letters of support from local Commissioners. External partners appear to have been integrated into the process through the project’s Programme Board, with representation from a number of local organisations. 	<ul style="list-style-type: none"> Included as an Appendix to the OBC are signed letters of support from local Commissioners. External partners appear to have been integrated into the process through the project’s Programme Board, with representation from a number of local organisations.

2.4.5 Management Case

As an Addendum to the SOC, the Trust compiled a Project Initiation Document (“PID”). The PID outlines the management and governance arrangements of the project.

Management Case	Key Components	SOC Comments	OBC v0.4 Comments
Project Management Methodology	<ul style="list-style-type: none"> Project management structure Reporting arrangements in relation to program All other management and governance arrangements Key roles and responsibilities – including appointed personnel and any vacancies 	<ul style="list-style-type: none"> The PID clearly outlines the agreed project management structure and the number of Committees, Workstreams and Board meetings to which the project is governed. Key roles and responsibilities, such as the Senior Accountable Officer, Project Director and Project Manager are all clearly outlined. Wider external stakeholders are identified in the PID. Representatives of these stakeholder groups form part of the project’s Programme Board. 	<ul style="list-style-type: none"> The PID clearly outlines the agreed project management structure and the number of Committees, Workstreams and Board meetings to which the project is governed. Key roles and responsibilities, such as the Senior Accountable Officer, Project Director and Project Manager are all clearly outlined. Wider external stakeholders are identified in the PID. Representatives of these stakeholder groups form part of the project’s Programme Board.
Project Management Plans	<ul style="list-style-type: none"> Describes how, when, and by whom a specific milestone or set of targets will be achieved Detailed analysis of how identified targets, milestones, deliverables, and products will be delivered to timescales, costs and quality 	<ul style="list-style-type: none"> A high level programme plan is included in the SOC setting out key milestones up to the OBC. It is noted that these milestones have elapsed. No milestones post the OBC are included – it is recommended that a longer term plan is included setting out the timescale through to project completion. 	<ul style="list-style-type: none"> A programme plan is included in the OBC setting out key milestones up to final project approval and delivery. Dates for future milestones have been updated to reflect a realistic procurement and delivery timetable.
Use of Specialist Advisers	<ul style="list-style-type: none"> Where skills and capabilities are in short supply, these are used Indicates how and when this advice will be utilised along with expected costs 	<ul style="list-style-type: none"> The Trust has actively used specialist, independent, third party advisors in its development of the business case. This is reviewed specifically in the approach to options appraisal section, detailed later. 	<ul style="list-style-type: none"> The OBC sets out the approach to and use of external and specialist advisers.
Change and Contract Management Arrangements	<ul style="list-style-type: none"> Change management strategy linked to benefits realisation Change management framework to manage change 	<ul style="list-style-type: none"> The Management Case does not refer to the change management strategy or benefit realisation strategy. No outline plan or change management framework is provided within the SOC. 	<ul style="list-style-type: none"> The OBC sets out a proposed approach to control of change and management of transition which is appropriate for this stage of the project.

Management Case	Key Components	SOC Comments	OBC v0.4 Comments
	<ul style="list-style-type: none"> Outline plan to explain what is delivered and when in terms of underlying activities 		
Benefits Realisation	<ul style="list-style-type: none"> Arrangements for identification of potential benefits, their planning modelling and tracking Ultimate responsibility for delivery of benefits identified Register indicating how benefits are to be realised 	<ul style="list-style-type: none"> The approach to identifying, delivering or realising benefits is not covered in the SOC. 	<ul style="list-style-type: none"> The OBC sets out a proposed approach to benefits realisation which is appropriate for this stage of the project.
Risk Management	<ul style="list-style-type: none"> Identify risks in advance and minimise them Processes to monitor risks and access to reliable up-to-date information about risks Balance of control to mitigate against adverse risks if they materialise Decision-making processes supported by framework for risk analysis and evaluation 	<ul style="list-style-type: none"> The management of risk is discussed in Section 4 of this report. 	
Monitoring During Implementation	<ul style="list-style-type: none"> Specify arrangements for monitoring during implementation (including who, when, how and detail of costs) 	<ul style="list-style-type: none"> No detail is provided regarding the timeframe, costs or individuals who will undertake the monitoring role during the implementation phase. 	<ul style="list-style-type: none"> The OBC sets out a proposed approach to 'in-use monitoring' which is appropriate for this stage of the project.
Post Implementation Evaluation Arrangements	<ul style="list-style-type: none"> Specify post implementation evaluation arrangements (including who, when, how, and costs) 	<ul style="list-style-type: none"> No detail is provided regarding the timeframe, costs or individuals/roles who will manage the post implementation evaluation arrangements. 	<ul style="list-style-type: none"> The OBC sets out a proposed approach to post project evaluation ("PPE") which is appropriate for this stage of the project. PPE is also a key part of P22 requirement hence it is vital that a robust approach is considered and implemented.
Contingency Arrangements	<ul style="list-style-type: none"> Detail on the contingency plan with arrangements and provision for risk management 	<ul style="list-style-type: none"> The management of risk is discussed in Section 4 of this report. 	

2.4.6 Findings from review of the HMTGB Guidance

Presented above is the analysis of the elements included within the SOC and the OBC Options Appraisal document against HMTGB Guidance. Given that the project is currently at the draft OBC stage the following recommendations should be considered in order to ensure that the final OBC is fully compliant to the Green Book guidance and considered by the Trust when further developing the FBC:

- **Clearly defined Spending Objectives of the Project:** Within the OBC the spending objectives are only covered at a high level within the Strategic Case. Per Green Book guidance these objectives should be clearly defined and 'SMART'. It is suggested that the Trust develop these objectives in more detail.
- **Constraints and dependencies:** Within the Strategic Case outline the constraints, actions or developments required of others (i.e. externally imposed) if the ultimate success of the project is dependent on them.
- **Critical Success Factors:** Whilst the non-financial and financial evaluation criteria is clearly set out within the OBC there is not a clear link to 'Critical Success Factors ("CSF") within the document. It is suggested that the evaluation criteria be reworked to outline clear CSF in line with Green Book guidance.
- **Personnel implications:** Consideration of the potential TUPE considerations of the proposal should be further developed and a statement included within the Commercial Case in relation to this.
- **Accounting Treatment:** Whilst the Trust has developed a detailed Financial Case, more information at the FBC will be required on the potential accounting impacts of these arrangements on the Trust's financial statements. From discussions with the Trust the final accounting treatment will be dependent upon the result of procurement and funding arrangements – hence at the current time the final answer around accounting treatment is not clear. It is suggested however that a statement is included within the OBC to this effect and also outline the most likely accounting treatment and work undertaken by the Trust to date in relation to this issue.

2.5 Developing the options appraisal methodology

Following approval of the SOC at Trust Board in March 2016, the programme team have started further developing the proposition in advance of the OBC stage.

At the point of this review, Deloitte have reviewed the OBC Options Appraisal document (**'Report on the Appraisal of Options v03 10/10/16'**) which forms part of the OBC to be presented at Trust Board in November 2016. The appraisal cuts across both non-financial and financial factors and was conducted by appointed representatives of each of the main stakeholder groups associated with the programme, across the Shropshire area.

The approach to both the Non-Financial and Financial appraisals is reviewed in this section.

More detailed analysis of the actual underlying assumptions used in the OBC Options Appraisal document are outlined in Section 3 of this report.

2.5.1 OBC Options Appraisal document: Non-Financial Appraisal

2.5.1.1 Representation

The Non-Financial Appraisal ("NFA") was conducted off-site in September 2016. The NFA involved 50 representatives from 20 separate sponsors or stakeholders of the SSP programme. The approach of having a large complement of representatives to conduct the NFA was agreed and duly approved by the project's Programme Board in 2015, with the intention of having a wider and more balanced representation of views.

As had been approved and actioned previously, each of the relevant bodies was asked to nominate representatives to perform the NFA on its behalf. It was agreed and duly approved by the wider team a distribution of members by each body (i.e. rather than having one individual per organisation) with a weighting towards 'sponsor' members than 'stakeholder' members. It was agreed that given that the consultation was focussed more on acute care matters, additional representation was required of the Trust.

The panel appears to comprise a wide variety of skills and experiences across a number of areas of the health sector.

2.5.1.2 Appraisal of options

As identified earlier, at the point of the OBC Options Appraisal document, the programme team had already performed a short-listing exercise of potential options. The representatives were therefore appraising each of the four options against previously approved and agreed criteria (these and their relevant weightings are discussed later).

Across each of the four criteria, evidence was presented to the 50 representatives (as well as being shared prior to the NFA meeting). Evidence was largely presented in comparison to the 'do nothing' basis, which appears an appropriate bases to appraise the impact of each of the options.

This approach is set out clearly in the OBC Economic Case.

2.5.1.3 Criteria

The four criteria were agreed as being those used in the 2015 appraisal and shortlisting, as part of the SOC process. Each of the four criteria: Accessibility, Quality, Workforce and Deliverability were weighted in line with previous levels of importance provided by other representative panels as well as two public surveys.

Again, given the information available, this appeared a robust method of weighting each of the evaluation criteria. It was noted that across all four of these populations, Quality was rated the most highly of all criteria and Deliverability the least. Workforce and Accessibility were ranked the second and third most important criteria in three out of four of the prior surveys.

This gives a reasonable level of comfort over the appropriateness of these weightings. It could be argued that each of the individual populations could have been stratified by the same / number of the people involved. However, given the strong correlation between the orders of priority, it is unlikely that this would have a material impact on the scoring.

The criteria and rationale for the criteria used is outlined clearly within the OBC Economic Case.

2.5.1.4 Results

The results of the NFA were developed using the weightings outlined above against each of the scores given by the panel's representatives.

Each panel member was invited to score each option against the four criteria with a score of between 1 and 7 (the higher the number, the higher the performance). Scoring was performed independently by each panel member. Scores were then weighted and combined as part of a wider panel discussion. Panel representatives were invited to change their scoring following this discussion, albeit it is understood that none used this option. The non-financial results per the OBC are summarised in the table below:

TOTALS	Agreed Weighting	Total Weighted Scores			
		Option A	Option B	Option C1	Option C2
ACCESSIBILITY	25.1%	59.8	45.2	65.1	47.7
QUALITY	31.2%	39.0	65.0	91.5	24.7
WORKFORCE	27.3%	26.0	67.0	76.8	26.2
DELIVERABILITY	16.3%	19.6	40.5	42.4	22.2
	100.0%	144.4	217.6	275.8	120.8
	RANK	3	2	1	4
	DIFFERENCE	47.7%	21.1%	0.0%	56.2%

Source: 'Sustainable Services Programme Draft OBC – SATH Version 0.4 – 27/10/16: Table 24'

2.5.1.5 Sensitivity analysis

The Trust has performed additional sensitivity analysis on the results to identify the extent to which a change would be required to influence the result. This is discussed later.

In addition, the Trust has performed sensitivity analysis over the NFA results themselves to look for trends (by geography, organisation type etc.). In all stratified populations, the same preferred option (C1) came out on top, with the exception of the Telford and Wrekin geographical grouping.

The level of 'stress testing' and sensitivity analysis performed is appropriate at the OBC stage of a project.

2.5.2 OBC Options Appraisal document: Financial Appraisal

2.5.2.1 Approach to Financial Appraisal

Each of the four short-listed options have been fully financially appraised as part of the OBC Options Appraisal document.

The financial appraisal has included the following elements:

- **Technical advisors:** The Trust have engaged a number of independent technical advisors to support in identifying the potential scope and cost of each of the identified options. All technical advisors engaged appear appropriately qualified and independent to support on developing the business case for the proposal.
- **Ongoing refinement of assumptions:** The Trust and its technical advisors have continued to perform ongoing refinement to the operational and financial assumptions underpinning the business case. This is best practice given utilising the most up to date cost and technical information and explains the changes experienced in earlier iterations of the Financial Case.
- **Investment appraisal:** Each of the appraised options have had a financial appraisal performed on them to derive the Net Present Value ("NPV") of the discounted annual cash flows over the whole of the appraisal period. The Equivalent Annual Cost ("EAC") has been calculated as an annualised equivalent of the NPV of the project. This is in line with standard HMT Green Book evaluation methodology and guidance. The assumptions underpinning the investment appraisal have been reviewed in more detail in Section 3 of this report.
- **Economic parameters:** The Trust has set a number of economic parameters in performing its appraisal. This is in line with HMTGB Guidance. Each of these parameters is outlined later in this Section.

2.5.2.2 Economic parameters

The Trust has established a number of economic parameters for the financial appraisal of the project. These are outlined and appraised below.

Parameter	Recommendation
Appraisal period: 60 year operational period	This appears an appropriate length of appraisal window given the scale and type of capital programme.
VAT: Excluded	Whilst this is an appropriate assumption to make, at later stages, the Trust should identify the potential VAT implications of the proposals (albeit it appears unlikely this will vary between options).
Capital cash flows: Current cost levels discounted using a 2.5% GDP deflator	Appropriate approach at OBC stage.

Parameter	Recommendation
Residual asset value: Makes provision where appropriate	Appropriate approach at OBC stage.
Opportunity costs: No provision made for opportunity costs	This is appropriate given comparison back to the 'Do Nothing' case.
Lifecycle costs: Replacement horizons of between 5 and 15 years	This is reviewed in more detail in Section 3.
Cash flow: Cash flows for all revenue costs included	This is reviewed in more detail in Section 3.
Price base: 2016/17 price base is used	This is the most appropriate price base to use.
Risk assessment: No quantified assessment of risk performed	<p>For the purposes of the options appraisal exercise optimism bias has been calculated for each option. This exercise was undertaken by the Trust's technical advisers/cost consultant.</p> <p>It is recommended that a quantified assessment of risk is performed post OBC as the project develops and detailed solutions are received as part of procurement submissions. This will allow the Trust to assess the impact on the Trust's affordability and risk position at FBC stage.</p>

The approach to ranking each option under the financial appraisal is reviewed in Section 3.

2.5.3 OBC Options Appraisal Document: Overall Conclusion on Preferred Option

The overall conclusion and preferred option has been determined using the findings from the NFA and the financial appraisal. Each have been given an equal weighting of 50/50 in the overall ranking and subsequent scoring.

The combined results of the non-financial and financial evaluation exercise are summarised in the following table:

	Option A	Option B	Option C1	Option C2
Total Weighted Non-Financial Score	144.38	217.6	275.79	120.83
Benefits Margin below 1st	-47.7%	-21.1%	0.0%	-56.2%
Benefits Rank	3	2	1	4
Total EAC (£m)	351,473	321,381	324,070	325,794
Financial Margin above 1st	9.4%	0.0%	0.8%	1.4%
Financial Rank	4	1	2	3
Cost per Benefit Point (£)	2,434.40	1,476.92	1,175.04	2696.20
Overall Margin below 1st	107.2%	25.7%	0.0%	129.5%
Overall Rank	3	2	1	4
Combined Scores (50:50)	71.9	89.5	99.6	71.2
Overall Margin below 1st	-27.8%	-10.2%	0.0%	-28.5%

	Option A	Option B	Option C1	Option C2
Overall Rank	3	2	1	4

Source: 'Sustainable Services Programme Draft OBC – SATH Version 0.4 – 27/10/16: Table 33'

The combined results highlight the following:

- Option C1 is the preferred option on a non-financial basis.
- Option B is the preferred option on a financial basis.
- When combined on a 50:50 Non-financial to financial basis Option C1 is the preferred option.

Given that different options ranked first in the non-financial and financial evaluations a sensitivity/switching analysis was performed to understand what relative weightings would have to be applied in order to 'switch' the preferred option overall. This exercise highlighted that the relative weightings for financial and non-financial would need to be 96.2%:3.8% - a very significant change from the 50:50 applied.

This sensitivity exercise adds further comfort regarding the decision made and robustness of the process applied.

2.5.4 Options Appraisal Methodology: Conclusions and Recommendations

This section sets out the conclusions drawn from the review of the Options Appraisal Methodology designed and applied to both the non-financial and financial evaluation exercise:

Non-Financial

Parameter	Conclusions	Recommendation
Representation of Evaluation Panel	<p>An evaluation panel was selected that comprised of a wide variety of skills and experiences across a number of areas and organisation within the local health sector.</p> <p>This enabled the assessment to be performed from numerous perspectives and a balanced result to be reached.</p> <p>The make-up of the panel was agreed by all parties involved.</p>	<p>This approach should be maintained as the project progresses into procurement.</p> <p>Consideration should be given going forward as to the appropriate skill mix and experience required for evaluation at each stage of the project.</p> <p>The evaluation panel make up should be agreed to in advance of the procurement stage.</p>
Evaluation Criteria	<p>Sensible evaluation criteria and weightings were developed for the non-financial evaluation.</p> <p>Evaluation criteria and weightings were agreed upon by all parties ahead of the exercise and were in line with previous levels of importance provided by other representative panels as well as two public surveys.</p>	<p>This approach should be maintained as the project progresses into procurement.</p> <p>Consideration should be given to the appropriate criteria and weightings applicable during a procurement exercise. It is vital during a procurement exercise that the evaluation criteria is clear, unambiguous and correctly applied in order to mitigate the risk of</p>

Parameter	Conclusions	Recommendation
		procurement challenge and ensure that the correct result emerges.
Process	<p>A longlist of options was developed and this was subsequently refined to a shortlist of options. The shortlist options (including the 'Do Minimum' as a baseline) were evaluated and scored against the agreed upon criteria.</p> <p>The approach adopted is in line with suggested Green Book guidance.</p> <p>Appropriate approvals and governance measures were factored into the process.</p>	<p>This process should be maintained as the project continues into procurement.</p> <p>The governance and approvals milestones should be factored in to a project/procurement timeline at an early stage and project sponsors be made fully aware of the process and their responsibilities.</p>
Sensitivity Analysis	<p>An extensive sensitivity analysis was performed over the NFA results to look for trends (by geography, organisation type etc.). In all stratified populations, the same preferred option (C1) came out on top, with the exception of the Telford and Wrekin geographical grouping.</p> <p>This exercise reinforces the robustness of the evaluation exercise performed.</p>	<p>Consideration should be given to the sensitivity analysis undertaken at each stage of the procurement. The approach taken and parameters to be assessed tested may differ as the project progresses (i.e. assessment of funding types, rates or length of tenor).</p>

Financial

Parameter	Conclusions	Recommendation
Process	<p>Each of the short list options were fully costed over the project lifespan.</p> <p>Each option's costs included capital works, ongoing and major maintenance, operational costs and any residual value considerations.</p> <p>Savings and efficiencies attributable to each option were also factored into the calculation.</p> <p>Options were compared on a NPV and EAC basis.</p> <p>The approach followed is as per the HMT Green Book guidance for the appraisal of options.</p>	<p>The exercise should be revisited or updated should revised costs or savings be identified in order to ensure that the preferred option remains the most beneficial option.</p> <p>Also, updating and maintaining the financial assessment will be a useful tool in tracking and measuring anticipated benefits of the project.</p>

Parameter	Conclusions	Recommendation
Use of Specialists	<p>Technical Advisers and Cost Consultants Rider Hunt were engaged to provide detailed costings for the capital solutions and optimism bias calculations.</p> <p>Specialists were engaged at the correct time and used appropriately in the development of the OBC.</p> <p>The costing underpinning the evaluation have been reviewed and compared with benchmarks from similar NHS capital projects and guidelines. This is covered in further detail in section 3.</p>	<p>Specialists such as Costs Consultants should be drawn upon at appropriate times during the procurement phase.</p> <p>Bidder solutions can be reviewed, challenged and benchmarked by qualified technical specialists to ensure that bids/costs are 'on market'.</p>
Baseline Parameters	<p>The financial appraisal outlines a set of economic parameters consistent across all options. These assumptions are in line with Green Book guidance and have been applied to all options within the financial analysis.</p>	<p>For ease the baseline parameters (i.e. price base at 2016/17, inflation at 2.5%) should be maintained throughout the project. This enables comparisons across stages and between OBC and FBC much easier and helps to 'tell the story' of project development.</p>
Sensitivities	<p>Sensitivity analysis was performed on the financial evaluation focusing on the following parameters:</p> <ul style="list-style-type: none"> • Appraisal period • Income and expenditure variances <p>Given the stage of the project the sensitivities assessed appear sufficient.</p> <p>For some capital projects construction cost sensitivities are investigated – however in this instance it is unlikely that this approach would provide any insight as the various options are reconfigurations and relocations of the services.</p>	<p>At FBC stage consideration should be given to investigating the following sensitivities if applicable:</p> <ul style="list-style-type: none"> • Variances to bidder construction cost • Variances to inflation • Variances to any funding levels or underlying interest rates • Impact of programme delays

3 Key assumptions and financial modelling

3.1 Introduction

The aim of this section is to review the assumptions used in the development of the financial options appraisal exercise. Where possible the assumptions used have been compared to available and comparable benchmarks. Whilst all capital projects will have unique features and connotations which will impact costing, comfort can be drawn from comparable, 'on market' benchmarks further alluding to the robustness of the Economic and Financial Cases. In addition, a range of benchmarks are useful to consider when entering into the procurement phase and beyond.

The sections below review the approach adopted in respect of Construction, Lifecycle and Operating costs.

3.1.1 Construction Cost Assumptions and Benchmarks

3.1.1.1 Approach

A detailed exercise was undertaken by Rider Hunt building up a fully costed outturn price for each of the new builds and combinations of options.

The following table summarises the macro assumptions used for each option and related comments:

Parameter	Observation
<p>Core Cost</p> <p>Core cost built up based on Department of Health £/m² benchmarks and applied to applicable floor area per the Schedule of Area drawings.</p> <p>Costs have been uplifted using the Pubsec indices to PUBSEC 217.</p> <p>Estimates assume that the current site infrastructure is sufficient to supply the new site.</p>	<p>This approach/assumptions are appropriate given the stage of development of the designs and in line with suggested guidelines and cost metrics.</p> <p>Cost benchmarks are compared with other similar Acute NHS project below in section 3.1.1.2.</p>
<p>Fees</p> <p>An allowance of 15% for fees has been applied to the baseline DOH cost metrics.</p>	<p>This approach/assumption is appropriate given the stage of development of the designs and in line with suggested guidelines.</p>
<p>Equipment</p> <p>An allowance of 15% for equipment has been applied to the baseline DOH cost metrics.</p>	<p>This approach/assumption is appropriate given the stage of development of the designs and in line with suggested guidelines.</p>

Parameter	Observation
<p><u>Location Factor</u></p> <p>Costs have been adjusted to reflect a Shropshire location factor as published by BCIS.</p>	<p>This approach/assumption is appropriate.</p>
<p><u>Optimism Bias (“OB”)</u></p> <p>Detailed OB calculations have been undertaken setting out the appropriate upper level and mitigations for each risk type. OB per these calculations estimated at 23%.</p>	<p>The OB calculations have been undertaken by the appropriate specialist and evidenced clearly within ‘Appendix 5a – Optimism Bias calculations’. The Trust should ensure that the level of OB applied is revisited and updated as appropriate.</p>
<p><u>Other Exclusions</u></p> <p>The cost estimates clearly set out a number of items specifically excluded from each of the options costed. These include items such as significant external works, remodelling of access ways etc).</p>	<p>The exclusions have been clearly listed and consistently applied to each option. At OBC stage, given the level of detail and development of the build options this assumption and approach appears appropriate and consistently applied.</p>

3.1.1.2 Assumptions and Benchmarks

The table below compares the overall cost metric from a number of similar, recent NHS construction projects with the estimated construction costs outlined within the OBC options appraisal and Rider Hunt cost forms.

Project	Construction Cost (outturn) £m	GIFA (m ²)	Benchmark £/m ²
Sandwell & West Birmingham MMH	291.8	82,257	3,547
Royal Liverpool PFI	342.3	93,700	3,653
Stanmore	53.56	16,304	3,285
Alder Hey	187.75	50,417	3,724
Papworth	146.85	41,448	3,543
SSP Costs:*			
PRH Emergency & Acute Site	82.21	22,989	3,576
RSH Acute and Planned	19.82	5,369	3,691
RSH Emergency & Acute Site solution	164.4	50,768	3,239
PRH Acute and Planned	30.89	9,687	3,189

** Costs and GIFA sourced from ‘Appendix 5a – Optimism Bias calculations’ document*

** Soft landscaping removed from GIFA calculations to ensure comparability with other sites*

** Cost totals are outturn at Pubsec 217 including VAT and potential recovery.*

** The shortlisted options comprise of combinations of the above sites*

The high/low benchmarks and comparison to the SSP costs is summarised in the table below:

Description	Low £/m ²	High £/m ²
SaTH SSP	3,285	3,724
Other Organisations	3,190	3,691
Variance	3.0%	0.9%

The table above highlights that the SSP options appraisal exercise has been based upon cost metrics that are broadly consistent with a number of other comparable recent NHS construction projects.

Furthermore a comparison has been made between the base construction costs used to estimate the SSP Options and the Government Construction Cost Benchmarks for DoH Acute New Builds and Refurbishments. The table below outlines the metrics used:

Description	Single Point Average £/m ²	Range 20 th – 80 th Percentile £/m ²
SaTH SSP		
New Building Works		2,040 – 2,470
Works to existing building		900 – 1,900
Government Construction Cost Benchmarks – Acute (DoH P21 Framework - 2009/10)		
New Build	3,730	2,400 – 4,400
Refurbishment	2,090	1,140 – 2,520

All of the above cost metrics are presented at PUBSEC 173 Baseline

The comparison highlights that the underlying assumptions used in developing the SaTH construction costs for the option are within the anticipated ranges. In the case of the refurbishment metrics the SaTH assumptions used are actually below the anticipated ranges, this may be as a result of a lighter refurbishment being required. It is recommended that this is monitored and understood to ensure that it is appropriate for the works required and that no unexpected cost increases arise post OBC.

Given that the project is at OBC stage and as such an early stage of design development the approach adopted appears reasonable and assumptions used in line with market expectations and available guidance.

3.1.2 Lifecycle

The lifecycle and major maintenance included within the options appraisal was based upon the following assumptions and approach:

- A lifecycle cost profile was developed based on the existing and expected cost of the equipment and FF&E
- Lifecycle replacement was assumed to occur at the end of the useful economic life ('UEL') of the following asset categories. The UELs used are consistent with the asset depreciation policy adopted by the Trust:

Asset Category	Expected life (years)
Short life engineering	5
Med life engineering	10
Long life engineering	15
Furniture	10

Asset Category	Expected life (years)
IT	5
Short life medical	5
Med life medical	10
Long life medical	15
Buildings	25

- Costs have been extrapolated over a 60 and 30 year concession period in line with the evaluation period.

The project is at OBC stage and as such an early stage of design development. The approach adopted appears reasonable and has been based on existing costs and accounting assumptions currently used by the Trust.

It is recommended that as the solution design progresses a more detailed lifecycle profile is developed based upon the specific design, equipment requirements and level of specification. This will act as a useful comparator when assessing contractor designs during procurement.

3.1.3 Operating Costs

The operational (pay and non-pay) costs included within the options appraisal have been based upon existing costs adjusted and extrapolated accordingly for each option. Overall costs have been built up based upon the following assumptions and approach:

- Pay costs based upon anticipated staff levels.
- Salary costs detailed by banding based on current costs and applied to the anticipated staff numbers for each option.
- Pay costs assumed to remain constant over the whole concession for each option (net of inflation).

The project is at OBC stage and as such an early stage of design development. The approach adopted appears reasonable and has been based on existing costs and anticipated staffing requirements anticipated by the Trust.

It is recommended that as the solution design progresses a more detailed operating cost profile is developed based upon the specific design, equipment requirements and level of specification. This will act as a useful comparator when assessing contractor designs during procurement. Also – consideration should be given to changes in staffing requirement over the life of the concession i.e. drive towards continuous improvement and changes to service delivery.

3.1.4 Revenue Savings

The operational savings included within the options appraisal have been based upon existing costs adjusted and extrapolated accordingly for each option. Overall savings have been assessed based upon the following assumptions and approach:

- Pay costs based upon anticipated revised staffing levels and reconfiguration of services inherent in each option.
- Salary costs detailed by banding based on current costs and applied to the anticipated revised staff numbers for each option.
- Pay costs assumed to remain constant over the whole concession for each option (net of inflation).

The project is at OBC stage and as such an early stage of design development. The approach adopted appears reasonable and has been based on existing costs and anticipated staffing requirements associated with the service reconfiguration of each option.

It is recommended that as the solution design progresses a more detailed revenue savings profile is developed based upon the specific design and configuration of services. This will act as a useful comparator when assessing contractor designs during procurement and for monitoring and capturing benefits realised as a result of delivering the project.

3.1.5 Conclusions

Presented above is the analysis of the elements included within the OBC in relation to the estimation of costs within the Options Appraisal exercise.

The analysis highlights the following:

- The approach taken to the Options Appraisal exercise is in line with the prescribed Green Book approach;
- The macro assumptions applied to each option are in line with Green Book guidance and appropriate give the stage of the project;
- Specialist cost consultants/technical advisers were engaged at the appropriate point to develop the cost options;
- The assumptions underpinning the construction costs of the option are broadly consistent with equivalent benchmarks on similar NHS construction projects and DoH cost metrics;
- The approach adopted in developing the lifecycle assumptions for each option appear appropriate at OBC stage and have been based on current Trust costs and accounting/asset assumptions;
- The approach adopted in developing the operating cost assumptions for each option appear appropriate at OBC stage and have been based on current Trust costs and accounting/asset assumptions; and
- The approach adopted in developing the anticipated revenue savings for each option appear appropriate at OBC stage and have been based on current Trust costs and expected service reconfiguration arrangements.

4 Risk assessment

4.1 Introduction

The aim of this section is to identify how risk management has been addressed within the current SOC and draft OBC and throughout the programme's development. This section also looks to highlight areas where the business case can be strengthened.

Risk management is a structured approach to identifying, assessing and controlling risks that emerge during the course of a project lifecycle. Its purpose is to support better decision making through understanding the risks inherent in a project and their likely impact.

Effective risk management helps to achieve the wider aims of a project such as:

- Effective change management;
- Efficient use of resources;
- Better project management; and
- Supporting innovation.

When developing a SOC/OBC for a project, public sector organisations should foster a pragmatic approach to risk management at all levels. The following list sets out the basis for our review in order to assess the current approach to risk management reflected in the OBC:

- Risk management strategy;
- Risk mitigation;
- Risk management framework; and
- Maintenance of the Risk Register.

The analysis on the following pages assess the current draft of the OBC against each of the above and highlights strengths, weaknesses and gaps in the approach taken to date.

4.2 Assessment of approach to risk management

Description	Key components	SOC Comments	OBC v0.4 Comments
Risk management strategy	<ul style="list-style-type: none"> Identifying possible risks in advance of project commencement and putting mechanisms in place to minimise the likelihood of the risk materialising with adverse effects. Implementing processes to monitor risks and access to reliable up to date project information. This will likely include maintenance of a project risk register. A clearly defined decision making processes supported by a framework for risk analysis and evaluation. 	<ul style="list-style-type: none"> Risk management is discussed in the SOC at a relatively high level. 	<ul style="list-style-type: none"> The OBC sets out the project team’s proposed approach to the management of risk and related strategy.
Risk mitigation	<ul style="list-style-type: none"> Outline the recognised methods for the mitigation of risk throughout the lifespan of the project. These may include: <ul style="list-style-type: none"> Evidence of early consultation Design/project flexibility Assessment of how risk can be effectively transferred Reassessment of options following the consideration of risk 	<ul style="list-style-type: none"> Risk mitigation only covered at a high level within the SOC 	<ul style="list-style-type: none"> The OBC sets out the risk assessment and recording process and how risk and associated mitigations are captured within the Project Risk Register.
Risk management framework	<ul style="list-style-type: none"> Public sector organisations should take a pragmatic approach to risk management when undertaking a project of this scale. The OBC should reflect the following: <ul style="list-style-type: none"> Process by which risks are identified and managed Senior management support, ownership and leadership of approach to risk management policies Clear communication of risk management policies to all staff and stakeholders How risk management is to be embedded into business/project processes and applied consistently. 	<ul style="list-style-type: none"> Risk management is discussed in the SOC at a relatively high level. 	<ul style="list-style-type: none"> The OBC sets out the project team’s proposed approach to the management of risk and related strategy. The Project Risk Register is included as an appendix to the OBC
Maintenance of the Risk Register	<ul style="list-style-type: none"> The plans for the management of associated risks should be encapsulated within the risk register for the project listing all of the identified risks and the results of their analysis and evaluation (i.e. impact/probability assessment or RAG rating). 	<ul style="list-style-type: none"> Risk registers have been maintained at both the SOC and OBC stage of the appraisal. 	<ul style="list-style-type: none"> The approach to maintaining and updating the Project Risk Register is outlined within the OBC.

	<ul style="list-style-type: none"> • The risk register should be continuously updated and reviewed throughout the course of the project up to completion with particular focus on the related project management and procurement risks for the scheme. 		
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4.3 Assessment of approach to risk management

Presented above is the analysis of the elements included within the SOC and the OBC in relation to approach to risk management against HMTGB Guidance. The OBC sets out the Trust’s approach to risk in sufficient detail given the stage of the project and the processes and procedures already in place are consistent with expectations for a project of this type and scale.

Given that the project is currently at the draft OBC stage the following recommendations should be considered as the project progresses into the procurement phase and the FBC:

- **Continued focus on Risk management:** The Trust should continue to identify, record and assess project risk regularly throughout the project. The procedures and governance processes embedded to date should be continued throughout the project. Consideration should be given to the use of specialists (i.e. insurance, legal, technical) if/when related risk arise.
- **Quantification of Risk:** As the project progresses consideration should be given to undertaking an exercise whereby risks and impacts are quantified where possible. This will provide the Trust with a different viewpoint and greater clarity around the risk management process.



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