CHAPTER ELEVEN - PROCUREMENT ISSUES

11.1 Introduction

11.1.1 This section of the Business Case sets out the key procurement issues for the Trust. It examines the procurement which the Trust has in place through the national ProCure 21 framework to assist the Trust in developing the Outline Business Case though to Full Business Case and the proposed way forward for development.

11.2 From Strategic Outline Case to Outline Business Case and Full Business Case

11.2.1 The Trust considered that the most efficient way to utilise resources to develop the OBC/FBC Case was to enter into an initial contract with a Principal Supply Chain Partner (PSCP) from the Department of Health's ProCure 21 programme.

11.2.2 The NHS ProCure 21 partnering programme builds on best practice in the private sector and is seen as providing value for money to the NHS in the following ways:

- Establishes long-term relations with the PSCPs based on best value;
- Ensures an integrated design and construct service with single point of responsibility;
- Enables retention of teams to work on successive projects through Framework Agreements;
- It is recognised by key suppliers that preferred status is dependent upon continuously improving their performance and reducing capital and whole life costs;
- There is a commitment to joint technology and process improvement;
- An established protocol sets out the rules of the relationship;
- A strategy is in place to make supply chain management happen;
- Resources are allocated to supply chain management training;
- A performance measurement system is in place;
- A track record of projects shows measurable results;
- It promotes a constant focus on clients' needs;
- Formalised process for design to optimise functionality and minimise cost;

- Suppliers overheads and margins are identified, agreed and protected provided the projects are properly managed and delivered within the agreed target costs and timescales;
- Target costs and incentives set to impose high pressure to improve;
- Extensive use of formal, documented value analysis;
- Transparency and detailed understanding of costs;
- Planning for construction starts in detail design;
- Suppliers involved in the schedule development;
- Documented best practice procedures.

11.2.3 The ProCure 21 process involves bringing the whole of the construction team together at the beginning of the process. The process secures two significant advantages to the Trust over other contract forms. It delivers:

- A Guaranteed Maximum Price;
- A Guaranteed Delivery Date.

11.3 Process for PSCP Selection

11.3.1 Following the Trust's open day for prospective ProCure 21 Principal Supply Chain Partners (PSCPs) on 29 January 2008, the eight PSCPs on the national NHS ProCure 21 framework agreement were invited to submit Expressions of Interest (EoIs) for the 3Ts programme. A high level information pack was issued to all of the ProCure 21 PSCPs on 28 February 2008 with a closing date of Monday 7 April 2008.

11.3.2 Expressions of interest were received from HGB, IHP, Laing O'Rourke and Medicinq Osbourne.

11.3.3 A shortlisting selection panel consisting of those listed below met on Tuesday 15 April 2008 to assess each of the four EoIs against the pre-determined criteria set out in table 11.1.

- Steve Gallagher, Assistant Director Capital Development;
- Gary Speirs, Capital Project Manager;
- Delphine Barraclough, Capital Projects Manager, Specialist Services Division;
- Paul Richards, Estates Adviser, NHS South East Coast.

Figure 11.1 Shortlisting Criteria

	Shortlisting Criteria	Weighting
1	Experience of similar size construction programmes on confined sites within a fully functioning hospital setting in terms of clinical activity, new build and refurbishment, construction phasing, decant and capital cost.	40
2	Examples of innovation, sustainability, energy efficiency and environmental improvements incorporated into schemes.	15
3	Details of Principal Supply Chain Partners	10
4	Details of current commitments and confirmation of available capacity to meet the needs of this programme.	15
5	Details of head office location and local office input responsible for this programme.	5
6	Programme management arrangements.	10
7	Reporting arrangements for supply team costs up to completion of the Outline Business Case.	5
	TOTAL	**100**

11.3.4 The total weighted scores (out of 100) agreed by the panel were:

Figure 11.2 Shortlist Scores

ProCure 21 PSCP	Weighted Score
HBG Construction	71
Laing O'Rourke	75
Integrated Health Projects	61
Medicinq-Osbourne	42

11.3.5 After discussion the panel agreed that all the PSCPs except for Medicinq-Osbourne should be short-listed for interview. The panel considered that Medicinq-Osbourne did not demonstrate sufficient evidence of delivering similar large acute hospital capital schemes or appear to have the capacity required for the 3Ts project, as the majority of their work appeared to be focussed on delivering community based PCT projects. A second opinion was obtained from the NHS Procure 21 national lead (Ray Stephenson) who supported this view.

11.3.6 Interviews with the three shortlisted PSCPs were held on 30th May 2008 and the following individuals were on the interview panel.

Figure 11.3 PSCP Interview Panel

Individual	Position
Amanda Philpott	Director of Strategy, BSUH (Panel Chair)
Ian Tait	Director of Facilities & Estates, BSUH
Julie Nerney	Non-Executive Director, BSUH
Mr Peter Hale	Principal Lead Clinician for Surgery and 3T's Clinical Lead, BSUH
Dr Graham Dodge	Principal Lead Consultant (Imaging) and 3T's Deputy Clinical Lead, BSUH
Chris Adcock	Operational Director of Finance, BSUH
Steve Gallagher	Assistant Director, Capital Development, BSUH
Ray Stephenson	P21 NHS National Implementation Advisor
Paul Richards	Estates Advisor, South East Coast Strategic Health Authority

11.3.7 Set interview questions were asked to all shortlisted PSCPs, and scores were assigned by the interview panel to the following criteria weighted as shown.

Figure 11.4 Selection Criteria

Qualitative Criteria	Weighted Score
1. Proposed team structure and project management arrangements (attendance of key team members at the interview is highly desirable).	15
2. Experience of similar projects.	15
3. Evidence of added value the team will bring to the 3Ts project.	10
4. Office locations from which the project will be resourced.	5
5. Conflicting Supply Chain commitments and how they will be managed.	10
6. Outline timetable to deliver a consultation draft OBC by November 2008 (assuming appointment mid June 2008).	10
7. Project risks and how they will be managed.	15
8. Opportunities for innovation, energy efficiency and environmental improvements and how you would apply them to the 3Ts project.	15
9. Summary of PSCP activities within the first six weeks.	3
10. Key information required from the Trust within the first three weeks.	2
Total	100

11.3.8 The total weighted scores (out of 100) agreed by the panel were:

Figure 11.5 PSCP Scoring

ProCure 21 PSCP	Weighted Score
HBG Construction	84
Laing O'Rourke	89
Integrated Health Projects	46

11.3.9 The Trust interview panel was faced with deciding between two very high quality teams in HGB and Laing O'Rourke, both of whom evidenced that they were more than capable of supporting the Trust in delivering a high quality Outline Business Case for the 3Ts project.

11.3.10 Laing O'Rourke was selected as PSCP because the interview panel felt that they demonstrated a marginal edge in the following aspects:

- The experience of key supply chain members in delivering OBCs of a similar scale and complexity;
- Experience of the supply chain as a whole in planning and delivering major hospital projects;
- Greater clarity in how project risks would be identified and managed throughout the OBC stage.

11.3.11 In accordance with good procurement practice, the unsuccessful PSCPs were debriefed.

11.3.12 Laing O'Rourke commenced work with the Trust on the development of the Outline Business Case in August 2008. Laing O'Rourke's commission is currently, to undertake this piece of work.

11.3.13 The potential exists within the contractual arrangements for the Trust to extend the contractual arrangement into the Full Business Case and the construction stage if the 3Ts development proceeds as a publicly funded project. The Trust will examine the options available to it as the timescale for approval of the OBC becomes clearer.

11.4 Potential Procurement Strategies

11.4.1 The Trust commissioned Ernst & Young and Turner and Townsend to set out their views on the potential NHS procurement options and their inherent advantages and disadvantages against the Trusts key objectives. Some overlap between these reports occurs, the key difference relates to the inclusion of both Public and Private procurement considerations within the Ernst and Young report, whilst the Turner and Townsend report only considers Public Procurement. The following seven procurement options were considered:

- Traditional Funding;
- PFI;
- Phased PFI;
- PFI with Trust capital injection;
- ProCure 21;
- NHS LIFT;
- Property development Joint Venture.

11.4.2 The paper concludes that if the Trust can secure 100% capital funding for the scheme, ProCure 21 is the most appropriate procurement route. The procurement strategy report is attached at **Appendix 11A**.

11.4.3 The report noted that NHS LIFT is not available to the Trust. LIFT (Local Improvement Finance Trust) is used primarily in the areas of primary and community care development. Primary Care Trusts enter into a Joint Venture arrangement with a private sector consortium for a 25 year period. During this time, the Joint Venture, or LIFTCo of which the PCT is a shareholder and partner, undertakes all major property and construction transactions in that PCT area. BSUH, like all NHS Trusts, is not able to enter into these sorts of Joint Venture arrangements. An FT would be able to. As yet, no FTs have set up LIFTCos.

11.4.4 Also, NHS Brighton & Hove is not currently part of a LIFTCo. The PCT considered the establishment of an "Express LIFT" procurement in early 2010, but chose not to pursue this route.

11.4.5 A property Joint Venture is also not available to the Trust for the reasons set out above. Also, JVs of this nature are not yet established in the health sector, although local authorities are examining the potential. At the time this OBC was refreshed, only one NHS Trust has set up such a legal entity: a Community Trust in the North West.

11.4.6 All major projects are required to test the potential for a PFI or PFI style procurement. This methodology is available to the Trust and has a significant track record of delivery on the health sector. However until late 2010, there had been only one major PFI in procurement in the NHS – the North Bristol redevelopment. There are currently two or three others in the early stages of procurement.

11.4.7 The key methodologies for assessment of whether PFI is or should be suitable for such a project is set out in "Value for Money Assessment Guidance" published in November 2006 by HM Treasury, and Treasury's Value for Money Assessment for PFI – Guidance for NHS build schemes dated November 2008.

11.4.8 There are now key parts to this assessment – the quantitative analysis, which looks at the likely PFI costs of a major procurement, and the qualitative analysis which looks at a wide range of other factors. The two aspects, taken together, provide public sector organisations with a framework for decision making about the most suitable way of procuring major infrastructure projects.

11.5 Qualitative Analysis

11.5.1 The outputs of the qualitative analysis are set out below. This looks at a series of key factors which the Trust needs to consider in arriving at the most appropriate way forward:

- Viability – whether the investment objectives and desired outcomes need to be translatable into outputs that can form the basis of a contract and a sound payment mechanism; for example the quality and quantity of the outputs need to be ones that can be measured;

- Desirability - PFI can provide better risk management and produce incentives to develop innovative approaches to output delivery. Consistent high quality services can be incentivised through performance and payment mechanisms. However, risk transfer is priced into the contract. The purpose of these questions is to consider whether the benefits of PFI are likely to outweigh any additional costs and disadvantages;

- Achievability - while PFI may allow a more efficient and effective combination of public and private sector skills, determining the rules that will govern the relationship between the two sectors does involve significant transaction costs. In particular, the procurement process can be complex and involve significant resources, including senior management time which may be required for project development and the ongoing monitoring of service delivery. Authority capacity and capability, together with private sector deliverability will have direct consequences for procurement times and the level and quality of market interest. PFI needs a robust competitive process to deliver fully its benefits and so the choice of procurement route should be informed by an assessment of the likely market appetite.

11.5.2 The detailed questions which need to be answered under these headings, plus the responses for a PFI and a publicly funded procurement are set out in **Appendix 11B**.

11.6 Conclusion of the Qualitative Analysis

11.6.1 The Trust, in considering this analysis, could not definitively come to the conclusion based on the questions within the test that one procurement methodology (PFI or ProCure 21) held a definitive advantage over the other.

11.6.2 It should be noted that, commonly, around 50% of the proposed risk transfer under a PFI procurement relates to the construction period: PFI incentivises building contractors to deliver a new facility on time, to cost and to a carefully agreed quality standard. PFI has a significant track record in this regard.

11.6.2 However, it is also possible to achieve the same effect under a publicly funded ProCure 21 procurement. Under the ProCure21 national framework, the contract used is "Engineering and Construction Contract, 2nd edition (Option C: target contract with activity schedule).

11.6.3 This would allow the Trust to enter into a Guaranteed Maximum Price (GMP) and Laing O'Rourke and its supply chain would be contractually bound to deliver the new facilities to time, cost and quality. All prices negotiated with, or secured by tendering from, sub-contractors would be shared with the Trust on a transparent open-book basis. At the end of the construction period, the Trust would share any savings on an agreed basis.

11.6.4 The Trust could determine little advantage in one procurement method over another based on the quantitative test.

11.6.5 However, a key differentiator for the Trust is the time it would take to deliver the project under the alternative procurement routes. Chapter 12 sets out the programme the Trust intends to pursue if public funding is secured.

11.6.6 The Trust has considered the procurement timetables for each route and these are compared overleaf:

Figure 11.6 Procurement Timetables

Activity	P21 Target Date	PFI Target Date
OBC Approval	Spring 2012	Spring 2012
Agree ITPD documents		June 2012
OJEU		July 2012
Select Three Bidders		Sept 2012
Select Two Bidders		April 2013
Select Preferred Bidder		May 2013
Approval of Appointment Business Case		Aug 2013
Financial Close / Full Business Case	November 2012	November 2014
Start on Site Stage 1- demolitions	Autumn 2012	December 2014
Build Stage 1	Spring 2013	May 2015
Complete Stage 1	Spring 2017	May 2019
Stage 1 Fully Operational	Summer 2017	August 2019
Complete Stage 2	Autumn 2020	October 2022
Stage 2 Fully Operational	Winter 2020	December 2022
Stage 3 Complete	Spring 2021	May 2023

Notes: this assumes that decanting and enabling works, plus demolitions before Stage 1 commences are publicly funded and run in parallel with other approvals – this is the same for PFI and P21.

11.6.7 The programme which has been set out for the PFI option is based on the actual procurement timetable for the North Bristol development (and as reported to the North Bristol Trust Board in May 2009) which is currently the only major health scheme which has reached financial close the new EU Competitive Dialogue procedures.

11.6.8 The assumption made here is that OJEU to financial close will be just under two years: The average for all health PFI schemes is actually just under four years, so there is a risk that this timetable will take a year longer to deliver than that set out above.

11.6.9 Given the pressing need to effect change at the RSCH site and to deliver the key investment objectives of the Trust as quickly as practicable, the Trust therefore considers that the P21 route, utilising public funding, best meets its requirements.

11.6.10 Moreover the PSCP's ability to mobilise the supply chain in very short timescales provides a very real advantage for the programme. Further detail regarding the LOR procurement methods are provided within the Procurement Report (Chapter 9) and at **Appendix 11C**.

11.6.10 Quantitative Analysis

11.6.11 The Trust commissioned Ernst & Young to undertake the quantitative analysis of the PFI testing. The report is attached as **Appendix 11E**.

11.6.12 The analysis has been undertaken in line with the guidance published by DH and has been undertaken in line with current market conditions. There is significant volatility in the banking markets at the moment and at present banking terms for funding projects of this nature are much higher than were experienced in the more stable markets of 2004/5.

11.6.13 As requested by the DH the analysis was completed assuming a PFI contract based on Partial Indexation which is fairly new territory for the Health Sector. The summary of the quantitative analysis is shown in the following table.

Figure 11.7 Quantitative Analysis

Based on Partial Indexation	Crude PFI VFM at 13% IRR	Crude PFI VFM at 15% IRR	Crude PFI VFM at 18% IRR
Base Financial VFM Model (including buffer)	2.20%	-0.50%	-5.00%
Base Financial VFM Model (excluding buffer)	5.20%	2.60%	-1.90%
Capex sensitivity (on Base Case excluding buffer)			
-5%	1.80%	-0.90%	-5.60%
5%	8.40%	5.80%	1.50%
Lifecycle cost sensitivity (on Base Case excluding buffer)			
-5%	4.40%	1.70%	-2.80%
5%	6.00%	3.40%	-1.00%
Operating Costs Sensitivity (on Base Case excluding buffer)			
-5%	4.70%	2.00%	-2.50%
5%	5.80%	3.10%	-1.30%
Combined Lifecycle and Operating Cost Sensitivity (on Base Case excluding buffer)			
-5%	3.80%	1.10%	-3.40%
5%	6.60%	4.00%	-0.40%

Notes: Operating costs relate to pay and non-pay costs for FM services.

11.6.14 It should be noted that under Full Indexation the base case and nearly all sensitivities would show the publicly funded alternative as being better value for money than the PFI scheme.

11.6.15 To date contracts based on Full Indexation have been the normal arrangement in the Health Sector and although common place in Public Sector, Partial Indexation is new territory for the Health Sector.

11.6.16 Using the Partial Indexation data with a project internal rate of return of 15% (which is at the higher end of the traditional PFI market), the base financial model indicates that the PFI option is marginally value for money over the publicly funded alternative. At 13% IRR, the position improves.

11.6.17 Again using the Partial Indexation data at 13% and 15% IRR the sensitivities indicate that PFI remains value for money.

11.6.18 DH guidance varies slightly from HM Treasury guidance which recommends using 18% IRR as an upper bound for the crude value from money test – on this basis, public funding would show a marginal advantage over PFI. DH guidance considers that 18% is a higher internal rate of return than had been observed in health schemes going to financial close prior to the current market instability.

11.6.19 During the lifecycle of the 3Ts project P21 has been replaced by P21+. LOR is not on the P21+ framework, however, in 2010 the Trust and the SHA agreed that the scheme should continue with LOR in the interests of scheme continuity.

11.7 Strategic review of procurement 2010/2011

11.7.1 Brighton and Sussex University Hospitals NHS Trust has undertaken a procurement review for the delivery of its Teaching, Trauma and Tertiary Care (3Ts) project at the Royal County Sussex Hospital site in Brighton after consideration of the P21/P21+issues discussed above.

11.7.2 The proposed 3Ts project delivers the works in 3 main project phases along with the decant element of the works. Indicative costs for each of the phases of works are as follows:

- Decant: £33.7m (8% of the overall project value). The decant phase provides mobilisation and facilitation of the main 3Ts build.
- Phase 1 New Build: £283.2m (67.4% of the overall project value). This is the most significant phase of the build programme providing essential clinical accommodation.
- Phase 2 New Build: £99.4m (23.7% of the overall project value). The second main phase of the new build provides a substantial element of the overall clinical strategy.
- Phase 3 New build: £3.8m (0.9% of the overall project value). These works include delivery of the loading bay and associated external works to provide the final element of the 3Ts development.

11.7.3 The initial review of the procurement options available to the Trust for a publicly procured project can be summarised as follows:

- Traditional
- Design and Build
- Construction Management
- Management Contracting
- ProCure21/ProCure21+

11.7.4 Consideration of public procurement routes only is undertaken within this section; the possibility of utilising a PFI procurement route was discounted in 11.5-11.6.

11.7.5 The analysis of the key criteria aligned to the Trust's objectives in conjunction with public procurement guidance identified that the most appropriate method of procurement for the delivery of 3T's would be either ProCure21, ProCure21+ of a two stage design and build route.

11.7.6 The added value of ProCure21 has been taken into consideration and identifies the benefit of procuring via a nationally agreed framework. Due consideration was then taken of the ProCure21 and ProCure21+ frameworks and the issues surrounding the selection of each of these frameworks as the most suitable route for the Trust.

11.7.7 Many factors influence this decision making process and need to be revisited at the culmination of Stage 3 and prior to engaging in Stage 4. In addition to this the Trust need to maintain an open mind with regard to procurement of future phases of work under Stage 4 and consider not only the possibility of P21+ but also the potential of a two-stage design and build option.

11.7.8 As such we conclude that P21, due to timing was the correct procurement option for the undertaking of the Stage 2 and Stage 3 works.

11.7.9 Moving forwards, we also believe this would provide the best value solution in delivery of Stage 4, although note a commercial review of the ProCure21 framework with current market conditions will require validation against options of P21+ and two-stage Design and Build, at the culmination of Stage 3 design and GMP agreement prior to commencement of Stage 4 works on site.

11.7.10 The paper on which this section is based was independently commissioned via Turner and Townsend as is attached in **Appendix 11C**.

11.8 Economic Case for PFI

11.8.1 The Preferred Option identified in Chapter 8 The Economic Case, can be compared against a similar scheme funded by PFI by considering the combined results of Generic Economic Model (GEM) and the Trust's Monetisation work.

11.8.2 The Department of Health's latest guidance ('Additional value for money requirement for NHS major new build schemes' (December 2010)) says all benefits

must be measured and given a Monetary value. These values are then profiled in terms of annual cashflows and then discounted using Discounted Cashflow techniques to provide a Net Present Value to set against GEM outputs. Chapter 8 considers this further and **Appendix 8E** provides background information.

11.8.3 In this exercise the assumption is that the current design of the Preferred Option, Option 1, would be used by the PFI partner. Costs used in the GEM are considered below.

Capital Costs

11.8.4 The capital costs associated with Option 1 and a shadow PFI scheme can be seen in the following table.

Figure 11.8 Capital costs of shortlisted options

Item	Option 1	PFI option
Works cost	207,665	215,971
Fees	40,182	51,681
Non-Works	28,102	28,102
Equipment	29,700	29,700
Contingencies	17,650	18,599
Optimism Bias	6,852	6,513
Inflation adjustments	28,752	27,468
Sub-Total	358,904	378,033
VAT	61,210	62,981
Total	**420,114**	**441,014**

Notes: All costs above are in £'000 and are calculated using the prevailing BIS PUBSEC, which is now used for expressing all public sector construction costs in lieu of MIPS. This is currently 173 for projects of this nature. All costs shown are presented as per the OB1 forms that are required to be presented in the OBC. The inflation adjustment provides a forward look for construction price inflation to provide a true cost rather than a cost at 2010/11 prices. VAT has been calculated at 20% on the appropriate cost lines (VAT is reclaimable on professional fees). Optimism bias is included in the Generic Economic Model (GEM) but VAT is excluded.

11.8.5 Optimism bias calculations for Option 1 are provided at **Appendix 8B** and a similar amount has been assumed for a shadow PFI scheme. This assumes that design work represented by sunk costs and an asset in the Trust's books, would still have value to a PFI partner and design could be utilised at minimal additional cost.

11.8.6 Capital Costs for the shadow PFI scheme have been estimated by Laing O'Rouke and uses the following basis :

- public funding being available for Decant, Design and Stage 1 enabling
- underlying Works costs and other headings being equal to Option 1 Capital costs plus 4% (this is line with Department of Health's guidance)

Revenue Costs

11.8.7 The revenue costs for each option have been calculated in accordance with the principles set out in Chapter 10 of this OBC.

11.8.8 To estimate the relevant Revenue costs for the Service Cost headings in the Generic Economic Model (GEM), an estimate for unrecovered VAT has been stripped out from all options.

Other Costs

11.9 Lifecycle Costs

11.9.1 Lifecycle costs have been calculated for the 60-year period as required by the Capital Investment Manual, and are included in the GEM for each shortlisted option. Details of lifecycle costs are enclosed in **Appendix 8C**.

11.9.2 Using Department of Health guidance PFI Lifecycle costs during the concession period have been calculated as 85% of those used on the public funded comparator.

Transitional Costs

11.9.3 Transitional costs have been considered for all options and are included in the GEM. These represent the costs of the Trust project team, double running costs etc. A further narrative on these is set out in Chapter 10.

11.9.4 Using Department of Health guidance, Trust Cost Advisors recommendation and Laing O'Rourke's experiences, an additional 2.5% of PFI Capital Costs has been included for PFI related transitional costs. These costs would include Trust side Fees for Financial advice and Legal fees.

Sunk Costs

11.9.5 Sunk costs are costs that have already been incurred and are excluded from the economic appraisal so that previous investments do not influence the outcome of the economic appraisal.

11.9.6 In the GEM sunk costs of £19m have been adjusted for on Option 1 and on the PFI option. This spend is analysed together with an estimate of 2011/12 forecast costs are included in Chapter 8.

11.9.7 It is assumed that these costs would not be impaired under a PFI arrangement, but would continue to be depreciated by the Trust.

Risk Transfer

11.9.8 The Trust undertook an exercise to quantify the risks retained by the Trust under PFI and PSC options. The full analysis can be found in **Appendix 8D**.

11.9.9 The resulting risk adjustments are as follows :

- P21 NPC of £37.5 million
- PFI NPC of £46.7 million

11.9.10 The PFI option was assumed to be a Standard Form 4 project agreement with Soft FM services provided by the NHS Trust, as per the more recent PFI transactions, and no Managed Equipment Service.

11.9.11 The Public Sector Comparator was taken as the preferred option in the OBC delivered as anticipated through Procure 21. The analysis of risk transfer was assumed to be at the point contracts were signed (i.e. Financial Close and GMP respectively). The Trust would continue to supply FM services as at present and no Managed Equipment Service was assumed.

11.9.12 The analysis produced an outcome that BSUH would retain £9,219,054 less risk in NPV terms using P21. There are two reasons why the risk retained under P21 was judged lower than under PFI.

11.9.13 The main reason was the greater flexibility the Trust has over the use or otherwise of its assets in the longer term when faced with significant changes in demand. The relevant risks, which have similar are risks 5.3 to 5.6 inclusive. It was judged that if there was a significant fall in demand for one or more services, whatever the cause, and an alternative user could not economically or practically be found then under PFI the Trust would have to keep paying for Hard FM and lifecycle for that element. Under the P21 PSC the Trust could mothball that part of the building and reduce its associated Hard FM and lifecycle accordingly without penalty and enjoy the full financial benefits of the service reduction.

11.9.14 The risk assessment noted that commissioning shifts into alternative models of provision are perhaps more likely than at any time since PFI started with the high financial pressures and radical proposed changes in commissioning structures, ideas and opportunities.

11.9.15 Secondly. the relatively low risk transfer achieved under Procure 21 also partly reflects the fact that it was developed as a response to a perception that the NHS retained too much risk under traditionally procured JCT contracts let in the 1990s. In essence P21 as well as PFI are attempting to reduce the public sector's exposure to risk.

11.9.16 This analysis, undertaken using a real PSC with a good appreciation of the risks, mitigation strategies and NEC contract provisions differs from similar comparisons in earlier PFIs. In these cases the PSC was assumed to be far less developed (indicative block plans for the OBC) and the analysis of risk allocation and management was based upon worse case assumptions on how the PSC would be procured and managed.

NPC/EAC Findings

11.9.17 The detailed Economic Appraisals for each option are attached at **Appendix 8G** and the table below summarises the key results of the Economic Appraisals for each option. This provides an overall summary of the outputs of the Generic Economic Model:

Figure 11.9 Economic appraisals for each option

Option Appraisal Measure	Option 1	PFI (Partial)
Initial Capital Costs	283.6	54.8
Lifecycle Costs	550.9	511.5
Opportunity Costs	4.5	4.5
Avoided Costs	0.0	0.0
Transitional Costs	27.5	31.7
Incremental Building Running Costs	265.8	236.1
Clinical Costs	10,259.7	10,711.9
Non-Clinical Costs	4,293.1	4,341.4
Sub-Total NPC	15,685.0	15,892.0
Risk	37.5	46.7
Risk Adjusted NPC	**15,722.5**	**15,938.7**
Rank	**1**	**2**
Equivalent Annual Cost	**569.1**	**570.5**
Rank	**1**	**2**

Note: NPC = Net Present Cost. EAC = Equivalent Annual Cost. All values are in £'millions & at 2011/12 prices

11.9.18 Partial indexation is common basis for PFI contracts in the Public Sector. Certain elements of Unitary Payment will increase with inflation whilst other elements, generally Debt management, will not increase with inflation. However, it is understood to be fairly new to the Health Sector.

11.9.19 As the above Net Present Costs (NPCs) are calculated with reference to the individual options' construction periods plus a further period of 60 years, it is best to assess options using the Equivalent Annual Costs (EACs).

11.9.20 Option 1 has the lowest EAC.

Estimating Benefits

Traditional methodology

11.9.21 No separate exercise was undertaken to consider non financial benefits under a PFI arrangement. An estimate could be made by taking an average of Options 1, 3 and 5 as this would recognise the changes to space and also reflect timing issues. This would give a score of 711.2 and a Net Present Cost per Benefit point of 21.58 to 21.60. This would rank just behind Option 1.

Monetisation of non Financial Benefits

11.9.22 The Department of Health's 'Additional value for money requirement for NHS major new build schemes' (December 2010) sets out the requirements for non financial benefits to be measured and to be given a monetary value. These monetary values are then profiled as cashflows in a Discounted Cashflow Forecast. The resulting Net Present Values (NPVs) are set against GEM outputs which tend to be Net Present

Costs (NPCs) to provide a net position. The highest Net Present Value is then the preferred option.

11.9.23 The Trust held a series of meetings and a workshop in June 2011 to assess the monetised values of benefits. As a starting point these assessments used the Benefits Realisation work that was compiled by the Trust with the help of HaCIRIC (the Health and Care Infrastructure Research and Innovation Centre).

11.9.24 As some benefits are monetised using the Hospital Standardised Mortality Rates (HSMR) and Quality Adjusted Life Years (QALY), the GEM could not be used to capture all the data. Benefits using HSMR and QALY must be discounted using a discount factor of 1.5%, which is different from the GEM's rates (3.5% and 3%). The resulting NPVs were calculated and combined with GEM outputs in a separate Excel tool.

11.9.25 Full details and calculations behind the Trust's monetisation exercise can be found at **Appendix 8E** and **Appendix 8F**.

Cost / Benefit Analysis (CBA) – Monetised Benefits

11.9.26 A Cost / Benefit analysis using NPV and EAC of Monetised Benefits is shown in the table below.

11.9.27 Monetised Benefits for the PFI scheme is assumed to use the same calculations as Option 1, but the timing of benefits gives rise to differences in Net Present Values and Equivalent Annual Values.

11.9.28 For workings and details of the calculations behind the Benefits measurement and the relative timings can be found in **Appendix 8F**.

11.9.29 The results show Option 1 delivers the lowest overall NPV and EAV.

Figure 11.10 Economic appraisals for each option using Monetised Benefits

Option Appraisal Measure	Option 1	PFI (Partial)
Risk Adjusted NPC	15,722	15,939
Rank	**1**	**2**
Monetised Benefits NPV	-17,440	-16,863
Rank	**1**	**2**
Total NPC / (NPV)	-1,717	-924
Rank	**1**	**2**
Equivalent Annual Cost	569.1	570.5
Rank	**1**	**2**
Monetised Benefits EAV	-631.2	-603.6
Rank	**1**	**2**
Total EAC / (EAV)	-62.2	-33.1
Rank	**1**	**2**

Note: NPC = Net Present Cost. EAC = Equivalent Annual Cost. All values are in £'millions & at 2010/11 prices

Switching Points

11.9.30 The Cost Sensitivity coming out of the GEM clearly demonstrates that Option 1 being the Preferred Option is only ranked behind the Do Minimum options. However, when combined with the qualitative scores and the monetised benefits, the Do Minimums actually rank last and do not show Net Present Values but instead remain as Net Present Costs.

11.9.31 As such for switching purposes the Trust has considered the Preferred Option against the PFI option with Partial Indexation and the results are shown in the Table below.

Figure 11.11 Switching points Preferred Option vs PFI equivalent

Option	Cost Category	% Change required to switch ranking of NPC
Preferred Option (Option 1)	Risk Adjustment	44.0%
	Capital Cost	7.0%
	Lifecycle Cost	29.0%
PFI Option	Risk Adjustment	-36.0%
	Unitary Charge	-5.0%

11.9.32 This shows that the changes to the Risk Adjustment is relatively insensitive, and that 7% increase in Capital Costs or 29% increase in Lifecycle costs would make the PFI option preferable.

11.9.33 However, the PFI Unitary Charge would need to reduce by 5% before the PFI option was preferable and this could be measured as an average reduction of £1.7m per year which would seem unlikely.

11.9.34 This 5% reduction in Unitary Charge can be measured as the NPC difference between Preferred Option and the PFI Partial Indexation which is £217m. When combining the outputs of the GEM and the monetisation exercise the gap between Preferred Option and the PFI Partial Indexation widens to a Net Present Value of £793m and therefore a 5% reduction would be insufficient to switch preferences.

11.9 Overall Conclusion

11.9.1 The Trust takes the view that although there is little to choose in quantitative or qualitative terms (using the Partial Indexation data) between the two options for procurement, timescale for delivery is important: on this basis, public funding using P21 will deliver at least two years earlier than PFI.

11.9.2 Qualitative outputs show that a PFI contract based on the traditional Full Indexation basis, does not deliver value for money.

11.9.3 The DH's new methodology of placing a monetary value on non financial benefits and discounting these alongside GEM outputs, reinforces the importance of timescales and the public funding route delivers better value for money.

11.9.4 Public funding, using P21 is therefore the Trust's preferred option.

Procurement Issues – Conclusions

- The Trust has worked with Laing O'Rourke through a ProCure 21 arrangements to deliver this OBC – an arrangement which has worked well;
- Using the HM Treasury/DH qualitative and quantitative analyses for defining a suitable procurement route, there is little advantage demonstrated by PFI or public funding under a contract based on Partial Indexation, but public funding provides better value for money under a contract based on Full Indexation;
- Timescales are crucial to the Trust in delivering its investment objectives: public funding will deliver the programme at least two years earlier than under PFI;
- The Trust therefore believes that public funding, using P21 as a delivery tool is the most advantageous way forward.
- The Trust has evaluated the possible advantages of moving onto a P21+framework but the likely delays this will cause to the programme mitigate the possible commercial advantages. Further review at key gateways will be used to validate all procurement options;
- Using Partial indexation on PFI calculations Option 1 remains the highest Net Present Value;
- The GEM shows that one of the switching points which would allow a PFI scheme to be viewed as better Value for Money, would be a 5% reduction in Unitary Charge. However, the 5% reduction would still not meet the benefits delivered by Option 1;
- Option 1 is the Trust's preferred option and using just the GEM and Monetisation outputs the Procurement route is clearly better Value for Money via a publicly funded route.