

A Picture of Health

**Capital and Logistical
implications of either Option 2
or 3 for the Provision of
hospital services as outlined in
“A Picture of Health”**

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Prepared by

Currie & Brown UK Ltd
140 West Campbell Street
Glasgow
G2 4TZ

Tel 0141 221 0313
Fax 0141 227 8900

www.curriebrown.com

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1. Introduction

NHS Lanarkshire has published its strategy showing how it intends to improve health and health services for the people of Lanarkshire over the next five years. Proposals include:

- More health improvement and health promotion activities locally
- Expanded services provided by GPs and other community based staff in better facilities
- Sustainable and more specialised general hospital inpatient care, with emergency inpatient services provided from two general hospitals and planned inpatient services from one general hospital.

The document is entitled "A Picture of Health". Currently NHS Lanarkshire is undertaking a public consultation exercise on the proposals contained in the document.

The key objectives of the strategy are intended to lead to:

- A reduction in premature death
- Assessment, diagnosis and treatment closer to home for most conditions
- More community support for older people, people with long-term conditions and people with mental health problems
- Services targeted at the needs of individual communities
- Shorter waiting times for hospital treatment
- Fewer cancelled operations.

Since January 2006 Currie & Brown have been working with NHS Lanarkshire in respect of the capital costs and logistics of re-shaping the hospital provision for acute services which could emerge from the consultation exercise. Currie & Brown's agreed Scope of Services is included in Appendix 1 and following initial meetings this was supplemented with an agreed programme of service delivery.

In undertaking this exercise, it has been assumed that the bed numbers included in A Picture of Health, namely two 650-bed level 3 hospitals and one 300 bed level 2 hospital are to be provided. We have however excluded the Mental Health and Continuing Care beds that will be provided in accordance with the Mental Health Strategy and the Older Peoples Services Strategy of NHS Lanarkshire. It should be noted that the exact bed numbers are likely to change as detailed discussion of the clinical models develops over the next 12-18 months and as the outcome of the public consultation exercise is known.

NHS Lanarkshire proposes that in future each District General Hospital has two clearly defined roles, one as a local hospital and one as a specialist inpatient centre.

The local hospital role would mean all three hospitals providing, as they do now: specialist out patient and day case services; minor injury and illness assessment and treatment; and extensive diagnostic services. Around 80 per cent of current patient attendances at each general hospital are for these services.

The specialist inpatient centre role would mean that:

- One of the three hospitals (level 2) would provide Lanarkshire's new planned care centre for medicine and surgery and include the proposed new cancer centre for Lanarkshire
- Two of the three hospitals (level 3) would provide emergency inpatient care and consultant-led A&E services for all of Lanarkshire.

There are two options on hospital configuration which meet these proposed changes and are described as Options 2 and 3 of "A Picture of Health". These are:

Option 2 Wishaw Hospital and Monklands Hospital as Level 3 Hospitals and Hairmyres Hospital as the Level 2 Hospital.

Option 3 includes Hairmyres Hospital as the second Level 3 Hospital and Monklands Hospital as the Level 2 Hospital.

This report examines the capital costs and logistics of each of these options.

From inception this process was structured around meetings (formal and informal) and extensive discussions with the various stakeholders under the direction of the Capital and Logistics Board which includes: Executive Directors; General Managers; Clinical Representatives; Partnership Representatives; and Estates and Capital Representatives.

Informal discussions have been held with the Scottish Executive Health Department as well as meetings with each of the PFI Providers at Wishaw and Hairmyres.

This work enabled the compilation of the Clinical and Non Clinical Key Issues Schedule, Version 7 that is included in Appendix 2. The Schedule highlights those areas that may be regarded as the requirements for supporting the hospital model as defined as Option 2 or Option 3. From this document the Schedules of Areas were generated to enable the indicative costs to be established.

The Schedule of Areas and Costs for Wishaw and Hairmyres were shared with the respective PFI providers at Wishaw and Hairmyres hospitals to facilitate their input on the capital costs and to identify future revenue costs although this latter point is not addressed in this document.

It is emphasised that the outcomes of this report are very indicative and are based on the parameters outlined. Key outcomes are the Indicative Capital Costs based on the assumptions noted in the following section. These also reflects the risks noted in Section 6. of the report and use data from the previous reports prepared in March 2004 and December 2005. Significant further work is required in developing the options proposed to lead to the submission of a Final Business Case in accordance with the SEHD Capital Investment Manual.

It should also be noted that the proposed re-configuration of services does mean that some specialist areas, for example Cath Labs, CCU and ITU, currently within Hairmyres Hospital Level 2 Hospital would have to be re-provided on one of the Level 3 hospital sites.

In summary this paper provides a very high level commentary and a broad order of costs for the options proposed under A Picture of Health all of which will require development and testing to provide a viable implementation process and programme. While the total costs will have to be refined it is not anticipated there will be any major issues which would generate a significant movement in the cost differential between the options.

The total costs identified for each option are:

Option 2 (Wishaw and Monklands Hospitals as Level 3)	£173,746,274.07
Option 3 (Wishaw and Hairmyres Hospitals as Level 3)	£133,763,970.54

Details of breakdown of these costs are shown in Section 2.

Careful and detailed planning will be required to ensure that as far as possible ongoing health service provision is protected and potential risks minimised when working in fully operational environments. This is particularly applicable in the case of the development of Monklands Hospital (whether a Level 2 or Level 3 hospital) where there are major logistical difficulties associated with the condition, configuration and servicing capacities of the existing estate.

It should be noted that further supporting documentation in relation to this report is available and has not been included as part of this document.

2. Executive Summary

For the two options considered the key findings can be summarised as follows: -

Capital Cost Summary:

Option 2

	<u>Works</u>	<u>Equipment</u>	<u>Fees</u>	<u>VAT</u>	<u>Contingencies</u>	<u>Opt. Bias</u>	<u>Total</u>
Wishaw Level 3	£6,587,332.00	£329,366.60	£790,479.84	£1,210,422.26	£891,760.07	£1,623,118.60	£11,432,479.37
Monklands Level 3	£80,245,511.00	£11,055,243.15	£9,629,461.32	£15,977,632.03	£11,690,784.75	£23,726,992.69	£152,325,624.94
Hairmyres Level 2	£5,773,747.00	£263,687.35	£692,849.64	£1,056,551.01	£778,683.50	£1,422,651.26	£9,988,169.76
TOTALS	<u>£92,606,590.00</u>	<u>£11,648,297.10</u>	<u>£11,112,790.80</u>	<u>£18,244,605.30</u>	<u>£13,361,228.32</u>	<u>£26,772,762.55</u>	<u>£173,746,274.07</u>

Option 3

	<u>Works</u>	<u>Equipment</u>	<u>Fees</u>	<u>VAT</u>	<u>Contingencies</u>	<u>Opt. Bias</u>	<u>Total</u>
Wishaw Level 3	£6,587,332.00	£329,366.60	£790,479.84	£1,210,422.26	£891,760.07	£1,623,118.60	£11,432,479.37
Hairmyres Level 3	£24,286,514.00	£1,214,325.70	£2,914,381.68	£4,462,646.95	£3,287,786.83	£5,984,197.05	£42,149,852.21
Monklands Level 2	£42,579,134.00	£5,367,786.60	£5,109,496.08	£8,390,711.16	£6,144,712.78	£12,589,798.34	£80,181,638.96
TOTALS	<u>£73,452,980.00</u>	<u>£6,911,478.90</u>	<u>£8,814,357.60</u>	<u>£14,063,780.37</u>	<u>£10,324,259.68</u>	<u>£20,197,113.99</u>	<u>£133,763,970.54</u>

Note: To be read in conjunction with Section 4. Basis of Costs

Key Assumptions

The Summary costs shown should be read in the context of the following key assumptions:

- Monklands, Level 3 Hospital – in this option logistical difficulties and the need to maintain current services mean that significant new build is required to allow decant from, and then subsequently refurbish of the Surgical Tower. This will require demolition of existing Renal, ID and endoscopy facilities. These would require to be decanted and re-provided during the new build. This in turn would mean that the current Medical Tower would be retained but no longer required for hospital clinical use. Therefore alternative uses would require to be identified if additional revenue costs are to be avoided. The report does not include for any refurbishment or demolition of the Medical Tower.
- Monklands, Level 3 Hospital – the refurbishment aspects of this option are very likely to be unattractive to the construction market. Projects in excess of £50 million capital cost are likely to be required to be tested through the Private Finance process (PFI) and in this scenario, based on experience encountered at other projects it is unlikely that the project would be viable to the market.
- In regard to the current residences provided at Monklands Hospital, NHS Lanarkshire have advised that they will be exploring alternative options for the provision of staff accommodation at the site under both the Level 3 and Level 2 Options rather than invest a significant capital sum in buildings. .
- Monklands, Level 2 Hospital – this option has largely been assumed as new build due to the logistical difficulties already described, a more extensive refurbishment of existing buildings may be an option but this would require more detailed review. In addition it may be that new build could be regarded as providing better value for money than seeking to reconfigure the existing estate.
- Hairmyres, Level 2 Hospital – under this option the current acute accommodation on floor 2 would be vacated and some alternative use would have to be found as the PFI charges in respect of this area would continue. Occupation for Mental Health inpatient accommodation was considered for this area but it would not be considered acceptable due to safety, privacy and dignity issues, in accordance with current NHS Guidelines.
- NHS Lanarkshire have advised that there has been major investment in equipment particularly at Hairmyres and Wishaw which are new facilities. In addition further investment would continue across all three sites from Formula Capital funding over the next five years. This being the case the general Equipment Allowance has been applied at 5% for Wishaw and Hairmyres Hospitals, and to 15% for Monklands.
- NHS Lanarkshire have advised that whichever option is chosen there will be an impact on patient activity on each site in relation to cross boundary flow. This is assumed to be 60% of total patient activity going to Wishaw and 40% to Hairmyres if Option 3 is

implemented. If Option 2 is implemented then the expected flow is 53% of patient activity to Wishaw 47% to Monklands Hospital. This has been assumed to have no significant effect on cost totals and that the cost differentials between the two options will remain the same; this will require to be tested and verified further.

- Efficiencies in any service re-design through clinical modelling have still to be evaluated. This report is part of the first step in the process under which bed numbers and configuration of services will require much more detailed assessments and consultations with a wide party of clinicians and stakeholders.
- Initially costs were based on Health Building Note areas. These areas have been reviewed to align with areas consistent with current provision at Wishaw and Hairmyres.
- The cost of provision of Mental Health beds (224) and continuing care (45)beds have been excluded from this report as these will be considered under the Mental Health and Older Peoples Services Strategies of NHS Lanarkshire.
- No Development works have been included for any identified current services pressures. Only essential changes required through the reconfiguration of hospitals have been included.
- Costs do not include for the provisions of additional car parking at any site. NHS Lanarkshire have advised that while they recognise that this will be required it will be subject to a separate review of the entire provision across the estate and the availability of funding..
- The detailed programmes for implementation of the Development Works require further work but as noted in previous reports, and considering the need to phase implementation and procurement, the potential timeframe for overall completion could be in the order of eight to nine years. There could be a period of two to three years prior to commencement of any works on either site.
- The development of Monklands Hospital as either a Level 2 or Level 3 site, because of logistical planning and the need to continue to provide operational services, may take approximately 6 years alone to complete from commencement of building works.

3. Description of Options

The following sections provide a high level overview of the main elements and assumptions for each hospital proposal; full details are not included in this document but are available.

3.1 Wishaw Hospital as Level 3

- Assume a requirement for 650 Beds total capacity (Unable to achieve without new build)
- Assume retention of all 632 beds in existing format
- Assume relocate 69 Mental Illness beds to other Level 2/3 Site. Development of this area would provide some 90 acute beds taking the overall number to approximately 650 beds.
- Assume retain 100 Care of the Elderly Beds
- Assume Cardiac Labs will be located at Hairmyres (if Level 3 hospital) or at Wishaw or Monklands Hospitals if Option 2 implemented
- Assume Communicable Diseases Service will be located at other level 3 Hospital
- Assume provision of Interventional Radiology at Wishaw
- Assume Nuclear Medicine facility will not be provided at Wishaw, provide at other level 3 hospital
- Assume Renal Dialysis (level 3 provision) will not be provided at Wishaw, provide at other level 3 hospital
- Assume all support function areas are adequate e.g. telecommunications, computer facilities

3.2 Monklands Hospital as a Level 3 Hospital

- Assume a requirement for 650 Beds total capacity
- Assume requirement for 112 Mental Health Inpatient Beds (Stand Alone New Build, Single Storey – Located on site but not included in costs)
- Assume New Build of Operating Theatres, Day Surgery and ITU / SHDU and 208 Inpatient Beds (essential to new build due to logistical difficulties and the need to maintain current services)
- Assume retention of refurbished surgical tower (174 Beds in refurbishment surgical tower)
- Assume Cardiac Labs will be located at Monklands or the other Level 3 Hospital
- Assume Communicable Diseases Service will be located at Monklands
- Assume provision of Interventional Radiology at Wishaw
- Assume Nuclear Medicine facility will be provided at Monklands
- Assume ALL renal inpatient beds and 60% of acute Renal Dialysis will be provided at Monklands
- Assume all support function areas are adequate e.g. telecommunications, computer facilities

3.3 Monklands Hospital as Level 2 Hospital

- Assume a requirement for 300 Beds total capacity
- Assume requirement for 112 Mental Health Inpatient Beds (Stand Alone New Build, Single Storey – Located on site but not included in costs)
- Assume New Build of Operating Theatres, Day Surgery and 143 acute Inpatient Beds
- Assume retention of refurbished surgical tower for support services and admin
- Assume Nuclear Medicine facility will not be provided at Monklands
- Assume all support function areas are adequate e.g. telecommunications, computer facilities
- Assume 40% of outpatient renal dialysis services

3.4 Hairmyres Hospital as Level 3 Hospital

- Assume a requirement for 650 Beds total capacity
- Assume all Out-patient services remain in current configuration e.g. OPD, Diabetic Centre, Cardio & Respiratory medicine
- Assume Cardiac Lab remains subject to re-configuration of space
- Assume Interventional Radiology at Wishaw
- Assume Communicable Diseases at Hairmyres
- Assume all support function areas are adequate e.g. telecommunications, computer facilities
- Assume all renal inpatient beds and 60% of acute renal dialysis will be provided.

3.5 Hairmyres Hospital as Level 2 Hospital

- Assume a requirement for 300 Beds total capacity although current PFI building will still attract full charges. Further consideration of the contract to be undertaken by NHS Lanarkshire
- Under this option there are issues in utilising all of the space within the PFI building and the charges would remain for this facility.
- Assume Wards on second floor can accommodate Mental Illness Service. However due to the compromise and risk in patient safety and restricted access to external areas this is not likely to be clinically acceptable.
- Assume all support function areas are adequate e.g. telecommunications, computer facilities
- Assume 40% of outpatient renal dialysis services.

4. Basis of Costs

Costs are indicative only based on current projects cost data, Building Cost Information Service and Departmental Cost Allowance Guides on the following basis:-

- Current at 1st Quarter 2006.
- No allowance has been included for inflation to a potential start date.
- Equipment allowed at 15% Monklands as Level 3/2 and 5% each at Wishaw and Hairmyres as a Level 2/3 with additions for specialist items where identified.
- There has been no capacity or space planning and therefore a general contingency allowance of 10% has been added. This will be refined through detailed planning.
- Following a review of single bed provision at Wishaw and Hairmyres and an assessment of potential accommodation possible within the existing single Monklands Tower, single Bed provision has been taken at 50%. This is in accordance with expected standards for future hospital developments.
- Optimism Bias – until input is further developed and refined by the PFI providers, 20% has been applied to Wishaw and Hairmyres costs, and until Monklands proposals are more detailed, 24% has been applied. This would need to be reviewed should Monklands be considered for PFI. General Commentary on Optimism Bias and the process is included overleaf. The application of these assumptions at this point in time by Currie & Brown are based on previous experience.
- Professional Fees have been applied as a flat 12% across all costs.
- VAT has been applied at 17.5% on all costs excepting Professional Fees.
- No account has been taken of potential VAT recovery which may be possible when refurbishing existing accommodation.
- Assumes main services elements have adequate capacity for re-configuration.
- Costs exclude Decanting and NHSL Management Costs.
- Costs exclude Risk and Impact Analysis.
- Capital Charges are subject to a number of variables but under the proposed developments, these will increase but will be part of NHS Lanarkshire's exercise on affordability of the proposals of "A Picture of Health"..
- Revenue Costs do have to be evaluated for impact both during and following development.
- Life Cycle Costs are to be assessed.

Optimism Bias

There is an established tendency for build scheme appraisals to be overly optimistic. In order to rectify this tendency, appraisers are required to make an explicit upward adjustment to the project's capital and operating costs, benefits values and time profiles. This adjustment is referred to as an 'optimism bias'.

Based on the principles of the Green Book (Treasury Guidance and Procedures), it is recommended that the adjustment for optimism bias be based on data from past projects or similar projects elsewhere, and adjusted for the unique characteristics of the specific project.

Careful consideration should be given at the outset to the particular project characteristics when determining the project type. The Supplement to the Green Book sets out various upper bound percentages for the optimism bias adjustment, each value is dependant on the type of project and the stage the project has reached.

Once the upper bound percentage has been established consideration should be given to whether the optimism bias factor can be reduced according to the extent contributory factors have been managed and mitigated. Mitigation is applied to the upper bound to give the actual percentage adjustment to be made to the project in question.

Treasury guidance provides a set of contributory factors that result in an optimism bias. For any particular project specific weights can be assigned to each of these contributory factors reflecting their relevance to the specific project at the particular stage in development - see Table 1. The upper bound is reduced by the relevant weighted percentage.

The reduced optimism bias is then applied to the initial project estimates. As the project progresses through to the Final Business Case, the Optimum Bias figure should converge at zero as risks are mitigated and quantified – see Diagram 1.

Diagram 1: Adjustments to Base Cost

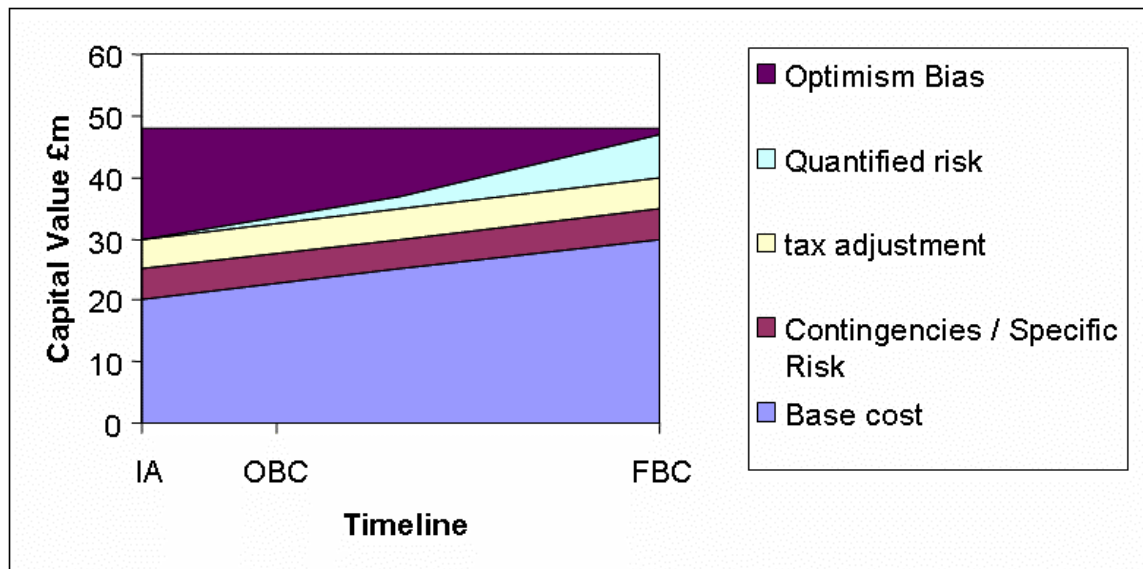


Table 1: Optimum Bias Upper Bound Guidance for Building Projects

Upper Bound Optimum Bias (%)		Non Standard Buildings		Standard Buildings	
		39	51	4	24
		Works Duration	Capital Expenditure	Works Duration	Capital Expenditure
Contributory factors to Upper Bound Optimism Bias (%)		Non Standard Buildings		Standard Buildings	
Procurement	Complexity of Contract Structure	3	1	1	
	Late Contractor Involvement in Design	6	2	3	2
	Poor Contractor Capabilities	5	5	4	9
	Government Guidelines				
	Dispute and Claims Occurred	5	11	4	29
	Information Management				
	Other (specify)				
Project Specific	Design Complexity	2	3	3	1
	Degree of Innovation	8	9	1	4
	Environmental Impact				
	Other (specify)	5	5		
Client Specific	Inadequacy of the Business Case	22	23	31	34
	Large Number of Stakeholders			6	
	Funding Availability	3		8	
	Project Management Team	5	2		1
	Poor Project Intelligence	5	6	6	2
	Other (specify)	1	2		<1
Environment	Public Relations			8	2
	Site Characteristics	3	1	5	2
	Permits / Consents / Approvals	3	<1	9	
	Other (specify)	1	3		
External Influences	Political				
	Economic		13		11
	Legislation / Regulations	6	7	9	3
	Technology	4	5		
	Other (specify)		2		

5. General Assumptions, Risks and Other Issues

Assumptions

- Proposals for the Monklands tower are based on an initial desktop exercise that indicates the bed number potential per floor at 54 beds for 50% single room or 44 beds at 100% single room (Current provision at approximately 25% single room is 72 beds)
- Work to existing elements with a risk of asbestos content assumes that whole areas can be sealed and decontaminated in a single operation.
- No service delivery models or capacity planning has been carried out in respect of clinical services and this would be required to test the assumptions on bed numbers and other clinical and support services.
- No space planning has been carried out and this is also required to test the proposals.
- The extent of Accident & Emergency redesign has to be developed following planning.

Risks

- The Ward area Towers configuration at Monklands limits the opportunity for flexibility between wards at each level as well as provision of horizontal evacuation.
- FIRECODE - Scottish Hospital Technical Memorandum (SHTM) 81 new build and/or SHTM 83 upgrade - at Monklands this would require evaluation and it may prove that full compliance cannot be achieved.
- Hospital Building Note 4, regarding ward bed space dimensions and percentage of single rooms to multi bed will require to be tested and may not in fact be fully achievable.
- At Monklands Hospital the clinical adjacencies and the Patient Journey would be improved but may represent a compromise compared with current service ideals, the lack of a "Street" and the inflexible Ward configuration are most notably at variance with modern design.
- While fabric repairs at Monklands may extend the potential life of the building this may be for a period significantly less than say the 60 years for a Category A provision building as defined by NHS Estates.
- The use of floor 3 at Hairmyres as a level 2 hospital presents a major risk whilst PFI charges will continue.
- The new build expansion of inpatient and day/outpatient areas is limited at Monklands due to the lack of available points where a new development could be linked into the main building. Further, once these proposed development works have been implemented there may be virtually no further expansion areas available.
- The optimum balance of accommodation between the exiting podium areas and the proposed new build accommodation at Monklands would have to be tested and there may have to be some compromise in regard to adjacencies and space utilisation.
- In respect of the existing infrastructure at Monklands there are logistical issues in respect of inadequate capacity, means of isolation, access etc that cannot be fully evaluated until works actually begin but are likely to be extensive.

- The site at Monklands has a large number of physical constraints that will require full evaluation prior to development works including steep slopes, potential mine workings and infill areas, restricted access and parking and poor services infrastructure.
- It is likely that Double Running costs will be incurred at various stages of the re-development; no allowance has been included for this. This will be addressed by NHS Lanarkshire in their Picture of Health affordability work.
- Hairmyres Hospital as a level 3 hospital may require some upgrading of the physical site infrastructure e.g. boilerplant etc. This requires further assessment.
- Decanting costs will involve physical construction requirements as well as NHS Lanarkshire and external consultants' time and services; no allowance has been included for this.
- While there will be extensive planning and impact analysis carried out there may remain significant Risk in Service interruption to hospital services during the re-development at all three sites. The likely building programme at Hairmyres and Wishaw Hospitals will aid minimising this disruption compared to Monklands Hospital.
- Similarly there will inevitably be significant Risk in Programme during the re-development.
- New energy compliance legislation to be effective by 2007 may impact on the re-development requiring higher provision that will be both costly and difficult to achieve.
- All of the foregoing issues will become apparent in the procurement process and collectively constitute a significant Risk in Business Case Approval.
- In initial discussions with the Local Authority Planning Department regarding Monklands they have expressed concerns around traffic flow in regard to access, parking and management during both construction phase and following completion. They also considered that there is a lack of connectivity on the Monklands site and that there may be an adverse effect on road junctions in the immediate area and also further a field.

A Traffic Impact Analysis will be required at all these sites although risks as described above are likely to be significantly lower at Wishaw and Hairmyres.

- Development of suitable car parking facilities at all three sites is essential.
- There is a general risk which may impact on cost and timescales when dealing with the incumbent PFI provider at Hairmyres and Wishaw Hospitals.

Appendix 1 - Scope of Services

NHS Lanarkshire

Picture of Health

Scope of Service

- Meet with the Project Board and jointly develop strategy around proposals for acute services re-configuration in support of the consultation process around Picture of Health
- Service provision to be delivered from 13 January 2006 with a draft Report provided week commencing 22 March 2006 (20 as meeting on 21) and final Report week commencing 3 April 2006.
- Meet fortnightly with the Project Board to report on progress and review any issues arising.
- Meet twice with the Clinical Working Group to establish and report back on key Clinical issues.
- Meet with Primary Care Capital Investment Group and Scottish Executive Health Department.
- Provide high-level capacity analysis advice on Accident and Emergency, Bed Numbers and other areas as service develops over the three sites.
- Identify key service provision issues across the three sites on an NHS Lanarkshire wide basis.
- In conjunction with NHS Lanarkshire, identify high level facilities requirements derived from the expected service configuration.
- Establish high level cost for Monklands, Wishaw and Hairmyres Hospitals site requirements and liaise with NHS Lanarkshire and consortia providers in this work to identify logistical issues in undertaking possible changes.
- Establish high-level risks for Monklands, Wishaw and Hairmyres site requirements and liaise with NHS Lanarkshire and consortia providers to establish high-level risks for the Law and Hairmyres sites.
- Engage Atkins Design (Architects) or others where required to provide high level design input if required.
- Provide draft and final reports capturing points above, discuss and agree with NHS Lanarkshire, including list of assumptions, exclusions and key decisions on strategy for service provision.
- Provide a programme of service for discussion and agreement.

Appendix 2 - Clinical and non Clinical Key Issues Schedule

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 2	Wishaw Hospital	Monklands Hospital	Hairmyres Hospital	By
	Clinical Issues				
Opt 2 C01	Cath Labs	Option - Provide 2 equipped Cath Labs and 20 overnight / trolley beds (14 at present ; increase is funded development) in integrated units. Close to in-patient beds and CCU. Impact on CCU? Locate either at Wishaw or at Monklands	Option - Provide 2 equipped Cath Labs and 20 overnight / trolley beds in integrated units. Close to in-patient beds and CCU. Impact on CCU? Locate either at Wishaw or at Monklands	2 Cath Labs to be re-provided at Wishaw or Monklands site. Removed from Hairmyres.	DH
Opt 2 C02	Communicable Diseases	Not to be located at Wishaw but provided at other Level 3 hospital	Retain provision here with full refurbishment / rebuild to provide 16 beds plus integrated counselling / outpatient facilities.	N/A	DH
Opt 2 C03	Coronary Care/MHDU	Current – CCU (6) & MHDU (6) in single unit Proposed – CCU (12) & MHDU (4) preferably in integrated unit. If MDU cannot be provided integral to CCU then locate as part of Admissions Unit	Current – CCU (8 staffed bed in 12 bed unit) but no MHDU beds Proposed – CCU (12) & MHDU (4) preferably in integrated unit. If MDU cannot be provided integral to CCU then locate as part of Admissions Unit	Current – CCU (6 staffed beds in 8 bed unit) and no MHDU beds Alternative use for space as proposed no CCU or MHDU beds	DH
Opt 2 C04	Accident & Emergency	Reconfigure space to accommodate increased volume from level 2 hospital and adjust to reflect any change in the department working in relation to minor injuries (see and treat). And Primary Care OOH's. ? 35% of activity from Level 2 site. Retain adjacent to joint admissions ward.	Reconfigure space to accommodate increased volume from level 2 hospital and adjust to reflect any change in the department working in relation to minor injuries (see and treat). And Primary Care OOH's. ? 35% of activity from Level 2 site. Retain adjacent to joint admissions ward.	Current provision adequate but some reconfiguration required for streaming. Primary Care OOH's etc. ? Retain 65% of activity.	DH
Opt 2 C05	Accident & Emergency Telemedicine Room	Provide within A&E Department – Conference Room	Provide within A&E Department – Conference Room	Provide within A&E Department – Procedure Room	DH

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 2	Wishaw Hospital	Monklands Hospital	Hairmyres Hospital	By
Opt 2 C06	Out of Hours Provision	Provide single unit as part of Accident & Emergency. – 2 consulting rooms, 1 treatment room and waiting areas – utilise existing areas	Provide single unit as part of Accident & Emergency. . – 2 consulting rooms, 1 treatment room and waiting areas	Provide single unit as part of Accident & Emergency. . – 2 consulting rooms, 1 treatment room and waiting areas	DH
Opt 2 C07	Older Peoples Services	Provide integrated diagnostic assessment and rehabilitation services for all services to older people. – use current Day Hospital space	Provide integrated diagnostic assessment and rehabilitation services for all services to older people. – provide facilities as Wishaw	Provide integrated diagnostic assessment and rehabilitation services for all services to older people. – provide facilities as Wishaw	DH
Opt 2 C08	Imaging	Provide additional CT Scanner. (Option for space only?) Re-provide X-ray Department from Strathclyde Hospital. (Wishaw is managed PFI service for Imaging) Also increased general rooms for increased A&E capacity Plain film neutral	Provide additional CT Scanner and 1 MRI facility as well as 2 general rooms (Option for space only?) Also increased general rooms for increased A&E capacity. Plain film neutral	Current capacity adequate. Add 1 Ultrasound	JH
Opt 2 C09	Interventional Radiology	Option - Provide Interventional Radiology here or at Monklands. (Room to theatre size / standard + associated accommodation) Within Radiology.	Option - Provide Interventional Radiology here or at Wishaw. (Room to theatre size / standard + associated accommodation) Within Radiology.	N/A	JH
Opt 2 C10	Nuclear Medicine	Current – No nuclear medicine facility located at Wishaw To be located at other Level 3 hospital (subject to business case approval)	Current – 1 Number nuclear medicine facility located at Monklands Additional facility to be located at Monklands with 1 no additional room required (subject to business case approval)	Current – No nuclear medicine facility located at Hairmyres To be located at Level 3 hospital (subject to business case approval)	JH
Opt 2 C11	OPD	Assessment of space requirements to be undertaken on basis of current/projected activity	Assessment of space requirements to be undertaken on basis of current/projected activity	Assessment of space requirements to be undertaken on basis of current/projected activity	JH

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 2	Wishaw Hospital	Monklands Hospital	Hairmyres Hospital	By
Opt 2 C12	Laboratories / Mortuary	Current provision adequate both Lab and Mortuary. Post mortems at Wishaw only	Review space requirements on service configuration Require upgrading and provide mortuary as Wishaw	Provide 1 view area and 4 bank fridge for mortuary. Review space requirements on service configuration for potential rationalisation	JH
Opt 2 C13	Pharmacy	Review space requirements on service configuration	Review space requirements on service configuration	Review space requirements on service configuration with particular reference to cancer services	JH
Opt 2 C14	Rehabilitation	Current space OK	Upgrade facility to match Hairmyres	Current space OK	JH
Opt 2 C15	Main Operating Theatres (Day Surgery)	Requirement – 12 theatres (1 laminar flow) + 3 scope + 1 procedure Equates to 1 additional scope room	Requirement - 11 theatres (1 laminar flow) + 3 scope + 1 procedure Equates to additional 1 No Main Theatre and 1 No Day Theatre + 1 scope room.	Requirement – 6 theatres (3 with laminar flow) + 2 ophthalmology in separate suite (see later) + 2 scope + 1 procedure room Equates to 3 additional laminar flows – look to reconfigure in existing space	RL
Opt 2 C16	ITU/SHDU	Current - 12 bed unit to accommodate 9 ITU & 3 HDU. Proposed - Additional 9 bed SHDU adjacent and ideally in one unit.	Current - facility is 6 ITU + 8 HDU within surgery ward Proposed - Integrated ITU /Surgical HDU required. 9 ITU Beds + 12 HDU Probable new build/major re-configuration	No provision required. Re-configure existing 10 ITU places to alternative use?	RL
Opt 2 C17	Renal Dialysis	Not to be located at Wishaw but provided at other Level 3 hospital	Retain 25 inpatient renal beds with 60% HHD capacity (29 stations)	Level 2 site has no inpatient renal beds but has satellite HHD units providing 40% of capacity (20 stations). – satellite option may be on a non-hospital site	DH

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 2	Wishaw Hospital	Monklands Hospital	Hairmyres Hospital	By
Opt 2 C18	Pre – Assessment	Preference to be integral to DSU but can remain in existing location	Integral to Day surgery services – replicate Wishaw space	Integral to Day surgery services – replicate Wishaw space	RL
Opt 2 C19	Ophthalmology	N/A	N/A	Provide integrated Ophthalmology Suite with 2 Theatres and Day Beds and sufficient OPD capacity to enable pre-assessment	RL
Opt 2 C20	Day Surgery (Refer also Main Theatres)	Current provision adequate	Review or refurbishment required. To include 3 theatres + associated recovery bed/pre-admission area + pre-admission assessment. Requires scoping-	Review or refurbishment required.	RL
Opt 2 C21	Mental Health	Option - 112 beds either at Wishaw or Monklands	Option - 112 beds either at Wishaw or Monklands	Total of 112 beds (72 adult + 40 old age)	CC
Opt 2 C22	Bed Capacity	Potential for small element of new build with any new build at 50% single bed provision. Also review for 100% single bed. Capacity 650	Major reconfiguration required. Any new build at 50% single bed provision. Also review for 100% single bed. Capacity 650	Adequate current acute beds. Also review for 100% single bed. Assess alternative uses for surplus with incorporation of services from the retained buildings / elsewhere. Capacity 300	ALL

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 2	Wishaw Hospital	Monklands Hospital	Hairmyres Hospital	By
	Non Clinical Issues				
Opt 2 NC01	Education Facilities	Current provision adequate	More Required – use Wishaw as benchmark - Development	More Required – use Wishaw as benchmark - Development	DH
Opt 2 NC02	Parking and Transport Links	Less Car Parking capacity than Hairmyres. TIA would be required – project additional capacity required	Less Car Parking capacity than Hairmyres. TIA would be required and Local Authorities have advised specific issues to be considered that are likely to extend beyond the immediate site.	Current adequate	DB
Opt 2 NC03	Engineering Services	Infrastructure capacity to be tested to check capacity sufficient	Significant infrastructure shortfalls to be addressed in upgrading works.	Infrastructure should be sufficient with some reconfiguration for decommissioning	DB
Opt 2 NC04	Compliance with FIRECODE	Should be achievable.	Not fully achievable	Should be achievable.	DB
Opt 2 NC05	Compliance with SHBN etc	Should be achievable.	Not fully achievable	Should be achievable.	DB
Opt 2 NC06	Residential Accommodation	Review if additional accommodation required in light of changes to junior doctors practice	Existing capacity adequate (serves more than Monklands) but requires re-provision as new	Existing capacity adequate.	DB
Opt 2 NC07	FM services	Review in line with service re-provision	Review in line with service re-provision	Review in line with service re-provision	DB
Opt 2 NC08	Medical Records	Leave as existing	Leave as existing	Leave as existing	-
Opt 2 NC09	Office Accommodation	Provide additional 50 work stations	Provide 100 additional work stations	Adequate at Level 2	ALL

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 3	Wishaw Hospital	Hairmyres Hospital	Monklands Hospital	By
	Clinical Issues				
Opt 3 C01	Cath Labs	Option - Provide 2 equipped Cath Labs and 20 overnight / trolley beds (14 at present ; increase is funded development) in integrated units. Close to in-patient beds and CCU. Impact on CCU? Locate either at Wishaw or at Hairmyres	Option - Existing infrastructure is insufficient to deliver new 16 week waiting time guarantee capacity. Extend into adjacent areas. 2 Cath Labs sufficient unless larger regional service is provided. Impact on CCU?. Provide 20 overnight / trolley beds. OR Remove all and locate at Wishaw	N/A	DH
Opt 3 C02	Communicable Diseases	Not to be located at Wishaw	Provide inpatient unit with 16 beds and integrated counselling/out patient facilities.	To be re-located to Level 3 site	DH
Opt 3 C03	Coronary Care/MH DU	Current – CCU (6) & MH DU (6) in single unit Proposed – CCU (12) & MH DU (4) preferably in integrated unit. If MDU cannot be provided integral to CCU then locate as part of Admissions Unit	Current – CCU (6) staffed beds in 8 bed unit) and no MH DU beds. Proposed – CCU (12) & MH DU (4) preferably in integrated unit. If MDU cannot be provided integral to CCU then locate as part of Admissions Unit	Current – CCU (8 staffed beds in 12 bed unit) and no MH DU beds. Proposed – no CCU or MH DU beds. Alternative use as no requirement.	DH
Opt 3 C04	Accident & Emergency	Reconfigure space to accommodate increased volume from level 2 hospital and adjust to reflect any change in the department working in relation to minor injuries (see and treat). And Primary Care OOH's. ? 35% of activity from Level 2 site. Retain adjacent to joint admissions ward.	Reconfigure space to accommodate increased volume from level 2 hospital and adjust to reflect any change in the department working in relation to m minor injuries (see and treat). And Primary Care OOH's. ? 35% of activity from Level 2 site. Retain adjacent to joint admissions ward.	Review provision in light of rest of Monklands redevelopment plan. But ensure that adequate capacity and provision for streaming and Primary Care OOH's etc. ? retain 65% of activity.	DH

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 3	Wishaw Hospital	Hairmyres Hospital	Monklands Hospital	By
Opt 3 C05	Accident & Emergency Telemedicine Room	Provide within A&E Department – Conference Room	Provide within A&E Department – Conference Room	Provide within A&E Department – Procedure Room	DH
Opt 3 C06	Out of Hours Provision	Provide single unit as part of Accident & Emergency. – 2 consulting rooms, 1 treatment room and waiting areas	Provide single unit as part of Accident & Emergency. . – 2 consulting rooms, 1 treatment room and waiting areas	Provide single unit as part of Accident & Emergency. . – 2 consulting rooms, 1 treatment room and waiting areas	DH
Opt 3 C07	Older Peoples Services	Provide integrated diagnostic assessment and rehabilitation services for all services to older people. – Use Current Day Hospital space	Provide integrated diagnostic assessment and rehabilitation services for all services to older people. – provide facilities as Wishaw	Provide integrated diagnostic assessment and rehabilitation services for all services to older people. – provide facilities as Wishaw	DH
Opt 3 C08	Imaging	Provide additional CT Scanner. (Option for space only?) Re-provide X-ray Department from Strathclyde Hospital. (Wishaw is managed PFI service for Imaging) Also increased general rooms for increased A&E capacity Plain film neutral	Provide additional CT Scanner (Option for space only?) (existing MRI facility adequate) Also increased general rooms for increased A&E capacity. Add 1 ultrasound Plain film neutral	MRI required. (Review if MRI is development)	JH
Opt 3 C09	Interventional Radiology	Option - Provide Interventional Radiology here or at Hairmyres . Requires Recovery area equivalent to theatre room. (Room to theatre size / standard + associated accommodation) Within Radiology.	Option - Provide Interventional Radiology here or at Wishaw . Requires Recovery area equivalent to theatre room. (Room to theatre size / standard + associated accommodation) Within Radiology.	N/A	JH
Opt 3 C10	Nuclear Medicine	Current – No nuclear medicine facility located at Wishaw To be located at other Level 3 hospital (subject to business case approval)	Current – No nuclear medicine facility located at Hairmyres Additional facility located at Hairmyres with 2 number additional rooms required (subject to business case approval)	Current – 1 Number nuclear medicine facility presently located at Monklands	JH

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 3	Wishaw Hospital	Hairmyres Hospital	Monklands Hospital	By
Opt 3 C11	OPD	Assessment of space requirements to be undertaken on basis of current/projected activity	Assessment of space requirements to be undertaken on basis of current/projected activity	Assessment of space requirements to be undertaken on basis of current/projected activity	JH
Opt 3 C12	Laboratories / Mortuary	Current provision adequate both Lab and Mortuary. Post mortems at Wishaw only	Review space requirements on service configuration Require upgrading and provide mortuary as Wishaw	Provide 1 view area and 4 bank fridge for mortuary. Review space requirements on service configuration for potential ration	JH
Opt 3 C13	Pharmacy	Review space requirements on service configuration ?	Review space requirements on service configuration ?	Review space requirements on service configuration with particular reference to cancer services	JH
Opt 3 C14	Rehabilitation	Current provision OK	Current provision OK	Requires upgrade – replicate Hairmyres	JH
Opt 3 C15	Main Operating Theatres	Requirement – 12 theatres (1 laminar flow) + 3 scope + 1 procedure Equates to 1 additional scope room	Requirement - 11 theatres (1 laminar flow) + 3 scope + 1 procedure Equates to possible conversion of interventional room to theatre + provide 2 additional theatres + 1 scope room	Current – 7 main (1 laminar flow) + 2 day +3 scope + 1 procedure Proposed – 6 main (3 with laminar flow) + 2 scope + 1 procedure (Ophthalmology suite see later) Major upgrade of existing or potential new build	RL
Opt 3 C16	ITU/SHDU	Current 12 bed unit to accommodate 9 ITU & 3 HDU. Additional 9 bed SHDU adjacent and ideally in one unit.	Current - facility is 10 ITU Proposed - Integrated ITU /Surgical HDU required. 9 ITU Beds + 12 HDU Probable new build/major re-configuration	No provision required. Re-configure existing 6 ITU places to alternative use?	RL
Opt 3 C17	Renal Dialysis	Not to be located at Wishaw but provided at other Level 3 hospital	Provide 25 inpatient renal beds with 60% HHD capacity (29 stations)	Relocate inpatient unit but retain 40% of HHD capacity as satellite (20 stations). Incorporate into Monklands redevelopment plan or provide as remote satellite	DH

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 3	Wishaw Hospital	Hairmyres Hospital	Monklands Hospital	By
Opt 3 C18	Pre – Assessment	Preference to be integral to DSU but can remain in existing location	Integral to day surgery- replicate Wishaw space	Integral to day surgery - replicate Wishaw space	RL
Opt 3 C19	Ophthalmology	N/A	Alternative use for space	Provide integrated Ophthalmology Suite with 2Theatres and Day Beds and sufficient OPD capacity to enable pre-assessment.	RL
Opt 3 C20	Day Surgery (Refer also Main Theatres)	Current provision adequate	Current provision adequate ?	Review or refurbishment required. To include 3 theatres + associated recovery bed/pre-admission area + pre-admission assessment. Requires scoping	RL
Opt 3 C21	Mental Health	Option - 112 beds either at Wishaw or Hairmyres	Option - 112 beds either at Wishaw or Hairmyres	Total of 112 beds (72 adult + 40 old age)	CC
Opt 3 C22	Bed Capacity	Potential for small element of new build. With any new build at 50% single bed provision. Also review for 100% single bed. Capacity 650	Major extension of existing and reconfiguration of existing required. 50% of new build at single room provision. Also review for 100% single bed. Future of services in retained buildings Capacity 650	Adequate current acute beds with major reconfiguration and assess alternative uses for surplus. Review for 50%/100% single bed provision Capacity 300	ALL

	Option	Level 3 Hospital	Level 3 Hospital	Level 2 Hospital	Sign Off
	Option 3	Wishaw Hospital	Hairmyres Hospital	Monklands Hospital	By
	Non Clinical Issues				
Opt 3 NC01	Education Facilities	Current provision adequate	More Required – use Wishaw as benchmark - Development	More Required – use Wishaw as benchmark -Development	DH
Opt 3 NC02	Parking and Transport Links	Less Car Parking capacity than Hairmyres. TIA would be required – project additional capacity required	Review Car Parking capacity to match increased bed numbers	Current should be adequate	DB
Opt 3 NC03	Engineering Services	Infrastructure capacity to be tested to check capacity sufficient	Infrastructure capacity to be tested to check capacity sufficient	Significant infrastructure shortfalls to be addressed in upgrading works.	DB
Opt 3 NC04	Compliance with FIRECODE	Should be achievable.	Should be achievable	Not fully achievable	DB
Opt 3 NC05	Compliance with SHBN etc	Should be achievable.	Should be achievable	Not fully achievable	DB
Opt 3 NC06	Residential Accommodation	Review if additional accommodation required in light of changes to junior doctors practice	Existing capacity adequate	Existing capacity adequate (serves more than Monklands) but requires re-provision as new.	DB
Opt 3 NC07	FM services	Review in line with service re-provision	Review in line with service re-provision	Review in line with service re-provision	DB
Opt 3 NC08	Medical Records	Leave as existing	Leave as existing	Leave as existing	
Opt 3 NC09	Office Accommodation	Provide additional 50 work stations	Provide additional 100 work stations	Adequate at Level 2	ALL

Appendix 3 – Information Bibliography

Information Issued

- “Picture of Health Acute Hospital Services Option Appraisal Evidence Pack for 22 November 2005”
- Proposed Level 3 and Level 2 Bed Distribution
- Accident & Emergency Attendances Statistics
- Staff Briefing Paper 21 December 2005
- CHKS Performance Review Project 2005 Presentation and Appendices A to O

Since 8 February 2006

- Orthopaedic – elective activity
- Future Options for Critical Care in Lanarkshire 14 September 2005
- Hairmyres Schedule of Accommodation
- Wishaw Schedule of Accommodation
- SHPN 04
- Theatre Capacity for Elective Surgical Services in NHSL
- Consultant Led New and Return Activity by Speciality January to December 2005
- AHP Activity by Speciality and Month January to December 2005 (3 sites)
- New Outpatients – Annual Projected Demand Assuming an 18-week guarantee is required (3 sites)
- Nurse Led clinics (3 sites)

Since 22 February 2006

- Pharmacy Requirement (footprint)
- Laboratories Facilities (footprint)
- Monthly Ophthalmology Activity for 3 site