

The Design Brief Framework for PFI Public Sector Comparators at OBC Stage

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Contact Details	Stephen Purden RIBA NHS Estates 1, Trevelyan Square Boar Lane, Leeds LS1 6AE 0113 254 7238 steve.purden@dh.gsi.gov.uk
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The Design Brief Framework for PFI Public Sector Comparators at OBC Stage

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1. Introduction

Summary

1.1 This guidance informs chief executives, their project directors and technical advisers of the design requirements of the public sector comparator (PSC) to be included in an Outline Business Case (OBC) submission for approval. The requirements reflect the revised 'Design Development Protocol for PFI schemes' (DDP),¹ emerging HM Treasury led reform of the PSC² and Government initiatives to achieve excellence in design³. Accordingly, this 'OBC Design Brief Framework' (the Framework) describes the practical steps project directors need to take, using existing guidance, to develop the PSC into a robust proposal that establishes the trust's design objectives. A properly resourced PSC will set the standards in design that the trust expects PFI bidders to exceed.

1.2 The Framework has been the subject of wide consultation and it represents an agreed approach to both design briefing and OBC approval requirements. It should be observed by trusts pursuing major capital schemes who envisage PFI procurement, including Foundation Trusts who wish to obtain a "Deed of Safeguard" from the Secretary of State for Health.

The need for guidance

1.3 This guidance is needed to enable trusts to meet a requirement of the Design Development Protocol (DDP)¹; that is,

"... a robust set of proposals that makes up the Public Sector Comparator ... will have formed the basis of approved Outline Business Case ... [and] ... the level of technical and design content of the PSC should be agreed with NHS Estates in advance of the OBC development".

1.4 It is also required as a contribution toward mitigating "optimism bias"⁴ and, overall, to meet an important aim of the 'Green Book'⁵ – that is, to ensure that at OBC stage a better estimate is made of capital costs that will eventually be incurred – and to support Government's intention to reform the PSC; namely,

"... into a comprehensive project appraisal carried out at the outline business case stage; ie prior to procurement and the role of the private sector with the quantitative aspect remaining part of a broader qualitative approach to the assessment".²

1.5 Underlying these requirements is a need for guidance to continue raising standards of design and assist in realising the benefits of good design as envisaged by the Office of Government Commerce (OGC) and the Commission for Architecture and the Built Environment (CABE).³ Achieving excellence in design is a key component of the investment in modernising the nation's healthcare services, as set out in NHS Estates' keynote publication 'Better Health Buildings'.⁶

“ Achieving excellence in design is a key component of the investment in modernising the nation's healthcare services ”

Approach

1.6 This document explains the practical steps project directors need to take to meet the design requirements at OBC stage (a synopsis is at Appendix 1). It provides a framework for developing the design aspects of the PSC. It draws together existing guidance, and explains how and why guidance can be used rather than offering new tools and techniques. It makes clear how the design deliverables required of trusts under the DDP at invitation to negotiate (ITN) stage can be met. This Framework is provided to enable trusts to develop their OBC preferred options through thorough design briefing to achieve a robust OBC design solution.

1.7 In particular, the document explains:

- why it is necessary to produce a better defined and designed PSC
- the benefits that a robust design brief and design solution will bring
- how design elements should be presented
- what design information is required in support of an OBC submission.
- involvement and consultation requirements.

Resources

1.8 It is important that the trust does not underestimate the human and financial resource implications of

preparing a sound PSC. It is essential that the organisations in local health economies that are working up business cases collaborate and ensure that there is a properly resourced project management structure in place. It is recognised that this places an obligation on trusts to commit resources to improve the quality of design and documentation of the PSC at the OBC stage; especially a need to engage professional technical advisers early on in the process. Inadequately resourced design briefing can result in delays and can generate increased costs to a trust and the project companies through increased bid costs at subsequent stages.

Status

1.9 The Framework should be observed by NHS trusts undertaking major capital schemes intended for procurement under the Private Finance Initiative, including Foundation Trusts who wish to obtain a “Deed of Safeguard” from the Secretary of State for Health. For Foundation Trusts who choose not to do so, the Framework is for information only. The exception is those schemes whose OBCs were submitted prior to the Framework’s publication. These schemes may adopt the Framework as best fits the development of their PSC.

1.10 The Framework has been produced in collaboration with the Major Contractors Group (MCG), CABE, the Prince’s Foundation, and the Department of Health’s Capital Investment Branch (CIB). It represents an agreed approach to design briefing and business case approval requirements.

Scope

1.11 The Framework addresses only the building design requirements of an OBC.

1.12 Broader aspects of design – for example the design of healthcare services themselves, workforce design, the design of facilities management support services – are referred to, but only insofar as they inform the building design process. The document does not address capital cost and risk matters (though it does comment on their relationship to the building design element) or the wider context of PSC construction and application. This is covered in other guidance; in particular, in NHS Estates⁷ and HM Treasury Taskforce advice.^{8,9}

Intended audience

1.13 This document is aimed primarily at NHS trust chief executives, design champions, project directors, project managers and technical advisers. Trust finance directors also need to be aware of its requirements in establishing the OBC’s capital requirements and subsequent role in economic appraisals of PFI options.

1.14 Compliance with the requirements of the Framework will also help to reassure PFI consortia that they will receive robust briefing and comparator information against which to effectively develop quality design solutions.



Peterborough & Stamford Hospitals NHS Foundation Trust; and Perspective of Edith Cavell Hospital Main Entrance, Watkins Gray International

2. The public sector comparator

Definition

2.1 A PSC is a trust's OBC preferred option that expresses its design vision, declares its design objectives, establishes the required quality and, importantly, demonstrates their practical achievement.

2.2 Historically, an OBC preferred option has not set design and quality benchmarks against which to evaluate and select a PFI preferred bidder. Nor has it been based on out-turn costs. Appropriate design briefing, design studies and cost planning to establish a robust and deliverable preferred option has not been undertaken at OBC stage. Accordingly, it is necessary when following this Framework to carry out certain work that would otherwise be done during the design development of an exchequer-funded, traditionally-procured scheme post-OBC.

Roles of the PSC

2.3 From a trust's perspective, the PSC provides not only an outline building design to a design brief produced in consultation with its stakeholders, but is also a basis for a realistic estimate of how much it would cost the public sector to build that solution. As such, the standard of design quality the trust and its Design Champion aspire to achieve should be clearly demonstrated. It also makes clear to commissioners and stakeholders how their expectations can be met within an agreed affordability envelope.

2.4 From the patient's and public's perspective, the PSC has a role in the process of achieving patient and public confidence in the design of healthcare buildings. Opportunities to comment on and influence design requirements should form part of a trust's involvement and consultation process with patients and the wider public in accordance with current policy guidance.¹⁰

2.5 From the bidder's perspective, the role of the PSC is to establish a benchmark for design quality, space requirements, quality of materials, environmental and engineering systems and cost, and to establish the brief in terms of functional content, clinical adjacencies and design vision. Reassurance will also be given that the trust's aspirations have been clearly thought through and communicated and that the project is feasible, deliverable and affordable. For bidders' design teams, the role of the PSC is to act as a challenge; that is, to focus their creativity on

bettering the PSC design solution, confident in the knowledge that the design brief is based on solid foundations.

“ the standard of design quality the trust and its Design Champion aspire to achieve should be clearly demonstrated ”

2.6 From a commissioner's and approving bodies' perspective, the role of the PSC is to establish at the initial approval stage a robust budget that will deliver a considered functional content and an agreed standard of design quality.

2.7 Overall, an important role of the PSC in PFI procurement is to ensure that the resources of the private sector are used efficiently, effectively and fairly and that responsibility for specifying project requirements rests firmly with the NHS.

Consequences for the procurement process

2.8 The 'Capital Investment Manual' (CIM)¹¹ governs the process of procuring capital schemes in the NHS. Supplementary guidance for schemes procured under the Private Finance Initiative (PFI) is provided in 'Public Private Partnerships in the National Health Service: The Private Finance Initiative' and related guidance issued by the Private Finance Unit (PFU).¹²

2.9 At the heart of the CIM process is the staged production and approval of business cases. There are various levels of delegation for approval of business cases (see DH website) but the principle is that they are required for all capital investments, large or small. Time and effort spent "to get the OBC right" at approval stage is designed to minimise complexity and delays later on.

2.10 An Outline Business Case (OBC) sets out a trust's or PCT's capital investment proposal – the strategic context, case for change, objectives, criteria for assessment, option appraisal and preferred option. For major schemes, the OBC is produced following national

prioritisation of investment in the form of approval to a Strategic Outline Case (SOC). In some SHA areas there is a requirement for production of “local-SOCs” or similar for smaller and mid range schemes. However, all schemes will require an OBC, whose formal approval is a prerequisite to commencing PFI procurement.

2.11 Under PFI procurement, the trust seeks bids from the private sector to design, build and operate a facility that is defined in the trust’s ITN that will deliver the requirements of the OBC over a given period of time. The provision or otherwise of some non-clinical services will have been appraised by the trust prior to seeking expressions of interest through EC procedures. Following evaluation of the bids and selection of the trust’s preferred private sector partner, a Full Business Case (FBC) is produced. The demonstration of an affordable, value-for-money case is a key requirement of the process.

2.12 The purpose of the FBC is to confirm the original investment and procurement decision in detail and to seek approval to enter into a partnership contract with the private sector to effect the procurement.

2.13 Historically under the CIM process, there is a tendency to produce an outline of a proposal at OBC stage, with little design input or recognition of optimism bias. A normative capital cost budget, summary functional content and departmental floor area budgets are produced. This leads to preferred options being insufficiently described and defined to form a robust design brief or design solution for a PSC, as it is not supported with a trust’s design objectives, and risks the budget being significantly inaccurate. This is understandable, given that conventional OBC option appraisals are constructed to decide between strategic and site/building massing options. They investigate the cost and benefits, constraints and opportunities afforded by a range of solutions including a minimum capital investment utilising existing estate resources. Broad assumptions are inevitably made to create a level playing field for assessing the options.

2.14 The consequence for trusts following this Framework, however, is that the preferred option needs to develop its design objectives to be able to deliver a service in a facility that is well designed and provides a desirable environment for patient care and for staff to work in. To establish the PSC, the preferred option will need to be developed by the project team with clinical

and management user groups and support from the trust’s:

- Infection Control Team
- Radiological Protection Advisor
- Fire Safety
- DDA Act 1995 access compliance arrangements.

This will define detailed service requirements and configurations, spatial and environmental requirements in relation to the building configuration, and constraints and opportunities of the site. It will also help determine appropriate levels of both uplift and mitigation for optimism bias.

2.15 A trust’s failure to develop a robust PSC as part of the OBC is likely to result in its:

- inability to adequately brief the private sector on what it has to better;
- failure to provide a robust design comparator with which to judge and demonstrate its betterment;
- missed opportunity to engage widely and fully with stakeholders at an early stage; and
- inability to manage risks, including delay and affordability.

2.16 Using the resources of the private sector during the bid process to correct these weaknesses introduces inefficiency, delay and costs. Clarification of a trust’s requirements arising from an inadequately prepared PSC will result in additional cost being borne by the trust. Moreover, irreconcilable issues of affordability can arise, and trusts may face the unpalatable consequences of reductions in the scope of the project and its quality in order to stay within budget. A benefit of early expenditure on developing a PSC is the avoidance of these costs and risks.

The benefits of a robust PSC

2.17 The benefits of developing a robust PSC as part of the OBC include:

- identifying the design and construction requirements of trusts, their clinicians, and users, including patients, at OBC stage to ensure that expectations can be met within appropriate cost, space and quality standards;

2. The public sector comparator

- reassuring commissioners that the cost and content of proposals are robust and affordable, mitigating the risks of re-approval or reductions in quality to maintain budgets;
- ensuring adequate involvement and consultation with key stakeholders including patients, the public and Overview and Scrutiny Committees (OSC)¹³ is carried out on realistic and deliverable proposals, which establish the standards that are to be achieved;
- achieving a realistic position for assessing value for money;
- maximising market interest and the benefits of competitive pressures by providing a realistic starting point and setting a clear brief and design quality benchmarks for bidders to better in an efficient and effective way;
- enabling evaluation criteria to be based on well-defined and tested frameworks – such as AEDET and NEAT – to ensure that analysis is more objective;
- providing a focus for external scrutiny of the project and its procurement decision-making as part of the rigorous economic appraisal at OBC stage required by HM Treasury.

What design information should the PSC contain?

2.18 The PSC should be developed as a quality design solution able to demonstrate a trust's design vision, aspirations and objectives.

“ the PSC should not be presented as the solution that the private sector is required to build, nor should it restrict or limit private sector innovation ”

2.19 From a clinical, design and environmental quality perspective, the PSC information should be sufficiently developed to enable a trust to answer the question . . . *if we had to build the PSC as defined in the OBC, would we*

want to? Thereafter, the information in the PSC should be used to set the design objectives and baseline against which the PFI bidders' solutions are evaluated.

2.20 The PSC should be documented in a way that establishes the benchmark for functional requirements, cost and design. Describing design requirements in purely narrative descriptions can lead to misinterpretation. Narrative descriptions of desirable design and environmental outcomes are often subjective and not easy to measure. Moreover, the PSC should not be presented as the solution that the private sector is required to build, nor should it restrict or limit private sector innovation. It is neither necessary nor desirable to present the design solution to a level of detail greater than that outlined in [Appendix 2](#). Neither is it acceptable to have produced a cursory, high-level layout and site utilisation development plan, as this will not convey the trust's requirements or demonstrate a robust PSC.

2.21 The information set required of the PSC, in terms of design, is twofold:

- a) **design brief** – describing service needs, design vision/objectives, defining environmental quality objectives and detailing technical requirements;
- b) **design solution** – comprising drawings and explanatory statements.

2.22 Additionally, the design brief will have an appendix of **supporting information** containing supplementary details about the site and other, miscellaneous data relevant to design such as town planning constraints.

2.23 The design brief should be independent of the design solution, as it will form the basis of output specification at ITN stage. The design deliverables for the ITN are specified in the DDP. However, there is a close relationship between the brief and design solution, and they should be developed as part of a single iterative process – though the design brief will need to be sufficiently advanced before work on a solution can

“ there is a close relationship between the brief and design solution ”

commence and the brief will evolve as the design is developed.

2.24 An initial draft of the brief is likely to go through a number of iterations as the design team seeks to reconcile the problems and constraints of meeting the brief, including input from staff, patients, the public, and OSC and other stakeholders. Gaps or conflicts in the briefing information are likely to be identified, and further drafts of the brief may be required to correct these. In addition to resolving technical issues, this process provides an opportunity for the trust to ensure that the wider impacts of the development are considered, such as the need for therapeutic environments and importance of urban design.

2.25 The outcome of the process will be a robust brief, tested against a reconciliation of the specific and general views of users and patients, optimally resolved within a three-dimensional design.

The design brief and design solution post OBC

2.26 Once the OBC has been approved, it may be necessary for trusts to continue refining their design brief and design solution with a view to providing bidders with a more advanced level of design information at ITN stage than the minimum information set described here. The DDP sets out the minimum information requirements to be supplied by trusts and the responses required of bidders at this stage.

2.27 It will be necessary to refresh the design brief and design solution if there is a change between OBC and FBC as a result of commissioner or trust changes to the scope of the project and to give a realistic design benchmark for comparison with bidders' proposals.



Site Plan – Whipps Cross University Hospital NHS Trust, Avanti Architects

3. The design brief

3.1 The information in a PSC design brief should be structured using the categories set out in the Achieving Excellence Design Evaluation Toolkit (AEDET).¹⁴ The toolkit uses ten criteria – grouped into three main categories – to evaluate individual designs. Since its launch in 2001 AEDET has had extensive use, and the lessons learnt are being incorporated in a revised version that will be available shortly via NHS Estates’ website. In the main, the changes will be of a practical nature – such as re-ordering the categories and clarifying the criteria – and do not invalidate the advice given in this guidance.

“ Good quality healthcare planning at the earliest stages of the overall capital planning process invariably leads to a better quality of scheme ”

3.2 NHS Estates has developed a Design Quality Briefing Tool¹⁵ to complement AEDET. Based on AEDET’s structure, the tool provides a template which trusts can use to develop a project-specific design brief. The template contains prompts for trusts to explore particular design issues and can act as a checklist against which to organise briefing work. The value of this framework is that it not only sets out the briefing agenda but also identifies quality requirements and aspirations. It also provides a foundation for the ITN information requirements of trusts, as set out in the DDP.

3.3 A general commentary on the use of the tool is provided here. Comments are grouped under the three main categories used in AEDET: functionality, impact, and build standard; and the ten sub-criteria.

Category 1: Functionality

Briefing elements:

1. Use
2. Access
3. Space

3.4 The functionality aspects of the PSC design brief framework are based on the healthcare planning work undertaken by the trust and its technical advisers. Some

of this work may already have been done at the SOC stage.

3.5 The healthcare planning process allows trusts to reflect upon current ways of working and provides an opportunity to refine, alter and improve service delivery based on what patients and the public have told them. It gives trusts an opportunity to embrace new ways of working and enables them to reconfigure the built environment to optimise efficiency and improve the patient’s experience. The process supports the production of an informed design brief that balances the relationship between the care process, medical technology and the physical environment. Guidance on the subject is published in NHS Estates’ report ‘SDC-Healthcare Planning: Design Brief Guidance’,¹⁶ and this has been drawn upon to inform this section. More generally, reference may also be made to NHS Estates’ ‘The Best Client Guide’.¹⁷

3.6 Good-quality healthcare planning at the earliest stages of the overall capital planning process invariably leads to a better quality of scheme.

Use

The service philosophy and strategy of the trust

3.7 The “model of care” is a fundamental building block of the design brief. It is the overarching philosophy identifying how the health economy, and organisations within it, will deliver care in the future. It will set out whole-system principles and a clinical vision for the provision of health and social care services. The model of care will reflect national and local priorities and good practice on service models and configurations, such as described in the National Service Frameworks. A description of how services are to be arranged on the site in the context of the overall model of care will be given, together with an impact assessment in terms of infrastructures, staffing issues, capacity and technology.

The prime functional requirements of the project

3.8 Once the model of care has been agreed, the next key stage in producing the design brief is to develop operational principles and policies. Guide templates for these are provided in the DDP.

3.9 Operational principles describe how each service will function. They are a way of testing the impact of the overall model of care on each element of the scheme. Operational policies for clinical departments that deliver the services (such as intensive care) and clinical support departments (such as pharmacy) should also be prepared to convey how each department functions as part of the overall hospital. These policies also describe how rooms and spaces for that service relate to one another so that the department can be planned in a functional way. Care should be taken to ensure that where departments have an interest in another department – such as the pharmacy’s interest in drug storage in ward clean utility rooms – their policies match.

3.10 Operational policies for non-clinical support services should be prepared in parallel with departmental operational policies, as they often require accommodation both in their own right and as part of departments; for example, catering services may require regeneration kitchens to be located on or near wards. The following list indicates some non-clinical services that trusts may wish to consider when developing their design brief. Those marked with an asterisk denote services that patients and the public should be involved in when the trust is considering its design brief.

- Staff Accommodation
- Linen and Uniforms
- Admission and Discharge*
- Health Records & PAS
- Sterile Services
- Porterage*
- Post Room
- Social Work
- General Management
- Education & Training
- Medical Engineering
- Control of Infection
- Occupational Health
- Access*
- Security & Safety
- Fire
- Communications*
- Car Parking*
- Estate Management
- Voluntary Services
- Religious Facilities*
- Materials Handling
- Catering*
- Domestic
- Transport*

3.11 Operational policies for the prevention and control of infection have a significant impact on the provision and design requirements for accommodation. At a strategic level, a trust’s policies on isolation facilities in respect of Healthcare Associated Infection will need to be determined at the outset. The extent of the provision of single rooms will be a major determinant of space requirements. The outcome of current government action on this subject will need to be taken into account.¹⁸ Advice on the principles underpinning, and on the key considerations that would assist in achieving, designed-in infection control, is the subject of guidance issued by NHS Estates.¹⁹

3.12 Where the private sector is to be invited to offer some services, the policies a trust writes for its PSC and the design solution it adopts to accommodate them may not be appropriate. In these circumstances trusts should state their current FM policies, the output and performance requirements, and the principles upon which the PSC is based.

3.13 Operational policies will link to a trust’s overarching controls assurance policies. The implications of these policies for design should be reviewed by the trust and its planning supervisor, and declared in the design brief. For example, the control of risks associated with manual handling may have consequences for hoist usage and associated spatial requirements. Needless to say, the opportunity to review and update existing policies in line with the modernisation of services should be taken.

The importance and dignity of individuals

3.14 Hospitals can be viewed as efficient machines for treating illness or accidents to the exclusion of

3. The design brief

humane considerations. The design brief should make clear the trust's view of how the design – the facilities it provides and how they are presented and organised – will embrace “patient-focused care” practices and the “consumerism” agenda. For further guidance refer to ‘Enhancing privacy and dignity – achieving single sex accommodation’²⁰ and the ‘Improving the patient experience’²¹ suite of guidance documents, published by NHS Estates. The trust will need to demonstrate how its views reflect the outputs of public and patient involvement activity as per Section II of the Health and Social Care Act 2001, and the duty to involve and consult as per Department of Health’s policy and practice guidance, ‘Strengthening Accountability’.

Functional relationships/Workflows and logistics/Throughput

3.15 Information in these sections, including explanatory diagrams, should pull together the requirements of individual departments as expressed in their operational principles and policies and present them in a whole-hospital context, together with specific requirements for clinical adjacencies between specialties and clinical departments. Priorities should be noted, with essential and

desirable relationships established. Matrices and checklists of the requirements are useful both for design teams in putting together proposals and for trusts in evaluating proposals. Include a brief statement of how patients and the public have been involved and consulted in/on the planning process – the issues raised and how they have been responded to.

Adaptability

3.16 The likelihood of changes in service provision should be explored in the design brief and the requirements for expansion and flexibility prioritised as essential or desirable. The specification may be departmentally based as well as generic. An example of generic flexibility may be a structural frame that will allow future reconfiguration of internal walls. Illustrative design studies may be provided in the brief to convey the trust’s intention.

Security and ease of control

3.17 The design implications of the trust’s security and safety policy prepared under [paragraphs 3.8–3.13](#) above should be discussed here and essential requirements of the brief specified.



Design Review Panel, St Mary’s NHS Trust

Access

3.18 Non-clinical support operational policies, such as materials handling, access, and car parking referred to in paragraphs 3.8–3.13 above should be highlighted here and supplemented as necessary with specific requirements, including those of the Local Authority with regard to transportation and town planning. Access is a key issue for staff, patients and visitors, and due regard should be given to stakeholder involvement in determining policies.

3.19 The Design Quality Briefing Toolkit provides seven headings with which to organise the access requirements of the design brief:

- Access for vehicles
- Parking for visitors and staff
- Goods and waste disposal vehicle segregation
- External wayfinding and signposting
- Pedestrian access
- Access for all
- Integration with fire planning strategy.

3.20 In addition to addressing the qualitative aspects of access, it is important that the quantitative aspects are briefed. This should range from overall estimates of parking requirements in relation to the trust's transport plan to the actual size of vehicles – cars, ambulances, goods vehicles etc – that will use the facility. Technical standards, such as the lux lighting levels of car parks at night time, will also need specification, though these may be better specified in the Build standard section with appro-

“ Trusts should be clear about the status of the sizes declared in the schedules of accommodation, particularly in relation to the freedom that the PSC design solution may have to vary the requirements ”

appropriate cross-referencing. The Supporting Information section of the PSC may be used to contain specific design guidance, such as the turning circle requirements of ambulances.

Space

Functional content and space standards

3.21 The functional content of the scheme should be provisionally developed in parallel with developing operational principles (see paragraphs 3.8–3.13). Functional content is a list of departments within the scheme and their key functional unit room requirements. At the early, option appraisal stage of the OBC, functional content may be based upon NHS Estates' Health Building Notes (HBNs),²² reflecting the consumerism agenda²³ and the latest best practice, including sizing. However, as operational policies are subsequently produced together with schedules of accommodation, the sizing of accommodation is likely to change to reflect project-specific needs.

3.22 Spatial areas are expressed in the schedules of accommodation. The layout of individual spaces may initially be determined using Activity DataBase (ADB)²⁴ (see paragraphs 3.27–3.35).

3.23 The schedules of accommodation will provide a detailed, spatial description of the facilities required to provide services in the new building. They sum up the accommodation requirements – in effect, room requirements and connecting corridors – of the clinical, clinical support and non-clinical operational policies. Additionally, communication space – the corridors, lifts and stairs that connect the departments – together with plant space and any external buildings such as medical gas stores, should be detailed. In this way a spatial budget for the project is established and a corresponding cost budget can be set.

3.24 Best practice information for the size of rooms and circulation space within departments – as provided in HBNs, associated schedules of accommodation, and ADB – and the amount of communication space, plant and external buildings, is conventionally used for initial option appraisal purposes. They should be thoroughly reviewed by the trust, its clinicians and users – including patients and the public – together with the trust's technical advisers to establish the trust's brief for the spatial requirements and cost budgets of the PSC. In part, this will link with the work on the design solution as an iterative process in finalising the brief. For example, pre-

3. The design brief

liminary design studies will provide a basis for not only measuring the communication space element of the brief for cost planning purposes but also for assessing its design quality. This assessment should ensure that the public's (especially patients' and their visitors') use of space for communal and social purposes as they enter and move around the building is recognised, and that it is fully integrated with the trust's wayfinding and arts strategy. In this way, an approach that focuses only on the utilitarian aspects of communication space will be avoided, and an adequate benchmark will be established for this important aspect of design quality.

3.25 Trusts should be clear about the status of the sizes declared in the schedules of accommodation, particularly in relation to the freedom that the PSC design solution may have to vary the requirements. The DDP gives guidance on the freedoms a bidder's design team may have, and a consistent approach is recommended with regard to the designers of the PSC design solution.

3.26 Space for partitions, contingency adjustment of room sizes to fit structural grids, for example, and space allowances for radiators and associated pipework, for instance, should all be accounted for in the schedule of accommodation. In this way the overall gross internal area of the PSC's design brief should be determined and the benchmark set against which the exemplar design solution, if different, and PFI proposals can be judged.

Guidance in Health Building Notes and other good practice documents

3.27 The brief should make clear the guidance to be followed by the PSC design team and should be consistent with that to be applied to bidders' design teams. The brief should be specific and precise about the status of guidance, distinguishing between any mandatory or desirable standards. Blanket statements should be avoided.

3.28 Space standards in relation to room layouts are determined by reference to the space required for activities undertaken in the room and the components – such as doors, power outlets, beds and tables – that aid them. Typical layout plans and elevation views are given in the room graphic sheets that form part of ADB's library of information. These serve as a starting point only and should be adapted to meet project-specific needs. The

extent to which all rooms need to be reviewed for layout at the PSC stage is a matter for judgement.

3.29 Investment in producing ADB room, design character, environmental and component data sheets, together with room graphic information, will provide a firm foundation both for the design brief and for the ITN information required later in the process.

3.30 The provision of components is not specifically mentioned in the Design Quality Briefing Tool or within AEDET, though it sits most readily within the Space category. Determining equipment requirements conventionally starts with examining NHS Estates' current guidance derived from the HBNs, related ADB room data sheets, and Equipment Cost Allowance Guides.

3.31 The equipment required to provide services in the building should be scheduled to correspond to the schedules of accommodation, that is, in the main, on a room-by-room basis. The equipment should be based on generic description and conventional NHS equipment classifications to reflect the PSC's procurement strategy.

3.32 Normative, typical requirements for departmental equipment – such as those contained in ADB – are conventionally used for initial option appraisal purposes. For the purposes of establishing a robust design briefing, however, this should be thoroughly reviewed by clinical and user groups to ensure it meets project-specific needs and can be robustly costed for PSC budget purposes. In the process, key spatial and engineering requirements of equipment can be ascertained and documented.

3.33 Transferring existing equipment to meet scheduled needs will require assessment, and major items – such as radiology equipment – may require special studies to assess the cost benefits of transfer, taking into account the engineering service requirements to support the equipment. To avoid confusion the OBC should make clear the assumptions made over equipment transfers, and specifically whether or not the PSC capital cost has been abated to reflect the value of transferred equipment.

3.34 Similarly, space equipped by others – such as retail facilities or patient entertainment control rooms – will require assessment for any base equipment, such as sinks and socket-outlets.

3.35 Schedules of equipment related to functional areas will need to be complemented by whole-hospital equipment schedules. For example, security CCTV equipment will in part be accounted for in the security office, though provision also needs to be made for the actual internal and external CCTV cameras to which it relates. Some systems – such as Building Management Systems – may be accounted for separately in the provisions for engineering services.

“ Stakeholder participation – including patient and public consultation, clinician and staff involvement – is a necessity ”

Space utilisation

3.36 Attention should be given here to the use of facilities over time and the potential to share accommodation. The brief should make clear the parameters within which the design team should work. For example, two departments may each have a seminar room as part of their schedules of accommodation, but in practice they could share the same room provided the design team was able to achieve a mutually accessible location.

Category 2: Impact

Briefing elements: 4. *Character and innovation*
5. *Citizen satisfaction*
6. *Internal environment*
7. *Urban and social integration*

3.37 The design brief should describe the required “impact” of a design solution in terms of the elements listed above. As CABC’s healthy hospitals campaign makes clear, this is not just about aesthetics; “. . . *great buildings can lead to better health outcomes. They can reduce use of painkilling drugs, increase cost benefits, and result in healthier patients and lower staff turnover.*”²⁵

3.38 The trust may wish to convey its aspirations in the form of illustrations as well as words. Illustrative material may comprise photographs of other schemes, pictures taken from magazines, or simple sketches. Simi-

larly, a visual analysis of the site, surrounding buildings, skylines, street scenes and the like will be very useful.

3.39 The trust may also wish to refer to the growing body of research material indicating that the design of the healing environment impacts on patient recovery and on staff; and that good quality environments impact positively on patient care, and vice versa.²⁶

3.40 Stakeholder involvement – including patient and public, clinician and staff and the relevant health scrutiny committee involvement – is a necessity if the briefing is to determine and address the issues that will enable people to enjoy the building and its setting. The identification of stakeholders, determining when they should be involved, and establishing the means by which they are enabled to be involved, will be crucial to the success of the project. In addition to the pre-OBC consultation process for service planning decisions, attention must be given to the community’s environmental interest in both the design of healthcare care facilities themselves and in their social and physical relationship to other developments, existing and planned. As a means of implementing a trust’s design vision, the outputs from the consultation should be drawn into the design brief. If not done at SOC stage, a one- or two-day scoping exercise to identify key stakeholders and strategic involvement opportunities should be undertaken. Effective project control procedures should also be developed in collaboration with stakeholders. Accordingly, a team to facilitate collaborative workshops and to run involvement and consultation exercises should be established and resourced.

3.41 Briefing teams will need to expand on the prompts in the table to make them project-specific. For example, under “views”, the prompt is “there should be special attention to creating patient, staff and public areas with pleasant views”. Fleshing this out with key requirements, specific to individual departments, will help the design team to prioritise and resolve matters in the design. For instance, out-patient waiting areas where people will have to wait for more than ten minutes may be specified as requiring a view to an interesting or landscaped area.

3.42 Preliminary drafts of such briefing will be tested in the work of the design solution before both are finalised, to ensure a trust’s aspirations are realistic and the briefing robust. In the case of the out-patient example given above, the design team may inform the briefing

3. The design brief

team that the high-density, urban context of the scheme makes it impossible to achieve the waiting room view criteria or that it can only be achieved at the expense of other, equally specified criteria, in which case the trust may need to consider amending its briefing.

3.43 Based on specialist urban design advice in order to achieve good practice, the design brief should analyse the context of the site in relation to the surrounding built environment. It should set out the issues and challenges that a design solution should address and the parameters within which solutions would be acceptable. It is important to establish any statutory town planning conditions that would need to be fulfilled (see [Chapter 6: Practical issues](#)).

Category 3: Build standard

Briefing elements: [8. Performance](#)
[9. Engineering](#)
[10. Construction](#)

3.44 In the main, this element of the briefing is a technical matter for the trust's technical advisers to address, though trusts should not underestimate the impact this subject has on patients', visitors' and the staff's experience of a resulting building. For example, poorly briefed acoustic requirements can have major consequences for patient confidentiality.

3.45 The extent of briefing on this aspect, its depth and detail, needs to be appropriate to the purposes of producing a PSC. The trust and its advisers will produce full output performance specifications for the building, external works and mechanical and electrical services for the ITN documentation to be sent to bidders as set out in the DDP. However, the trust's construction requirements should be able to reflect the capital and running cost budgets proposed for the PSC scheme. For example, within the engineering brief the sophistication of the building management system or the extent of monitoring and detection equipment should be decided upon as part of the utility management, sustainability strategy of the PSC, and costs included accordingly. Overall, the PSC should be able to demonstrate that it can deliver a scheme that would meet the trust's construction requirements, accepting that it is one way of meeting the requirements and that bidders may offer other options.

3.46 Procurement of IM&T requirements is usually the subject of a separate business case. However, provision in the design brief for specifying the accommodation (such as hub rooms, server rooms) and infrastructure (such as external cable ducts, cable ways, cables, data outlets, engineering services) is required, together with their environmental conditions. Elements of a trust's IM&T strategy – such as electronic patient records (EPR) and patient archiving and communication systems (PACS) – will have implications for the design of the departments to which they relate and in their own right.



Impression of aerial view – Sherwood Forest Hospitals NHS Trust

The Design Brief Framework for PFI Public Sector Comparators at OBC Stage

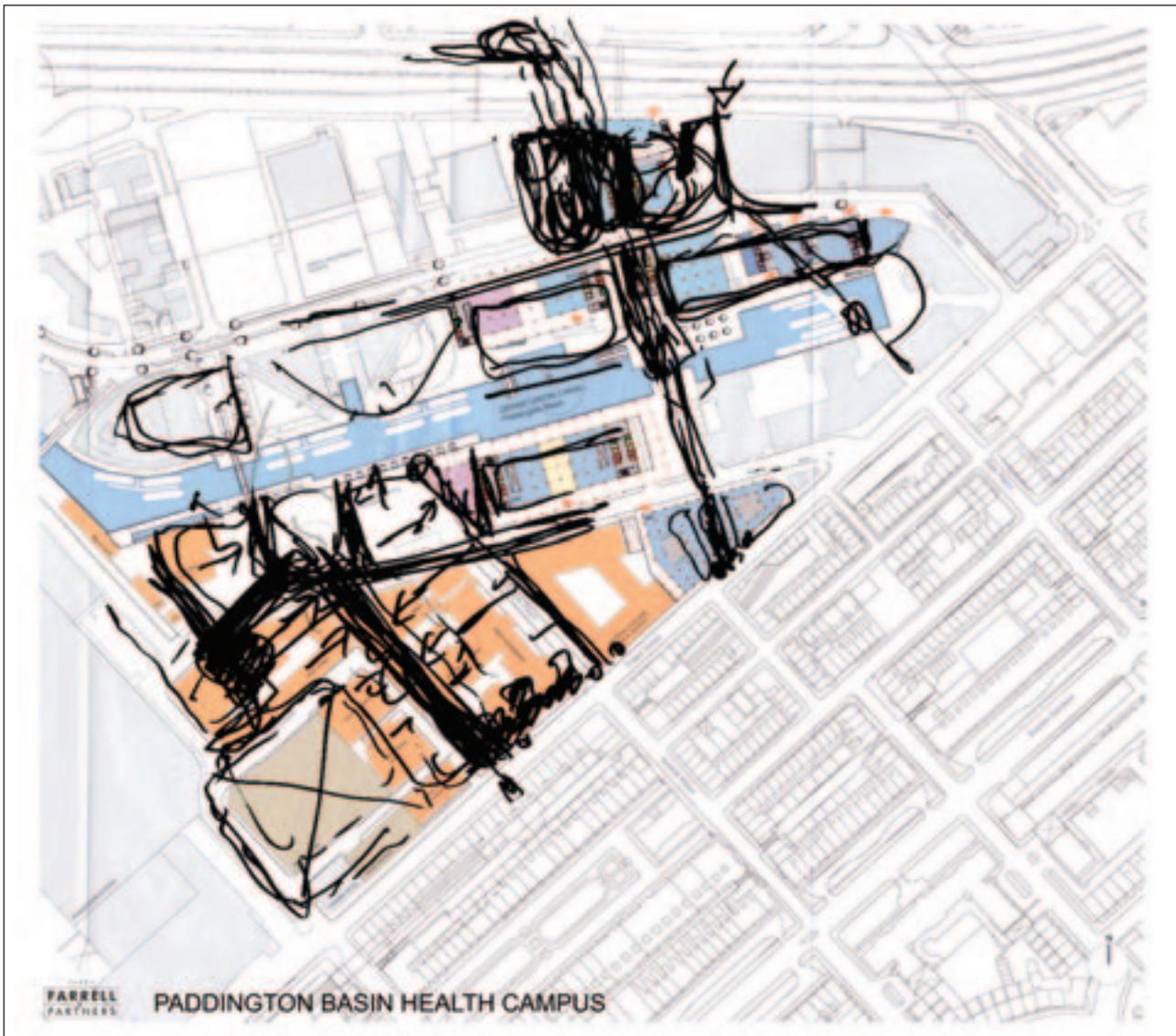
Informing bidders of any possible shortfalls of the PSC in achieving fully a trust's requirements will assist in the briefing and design process and will reduce the need for unforeseen clarifications from bidders. It will also serve as precursor training for clinicians and users in evaluating bids when they are received, making the selection process more efficient for the private sector and the trust.

4.3 In summary, the information required is:

Design approach	2000 maximum word statement
Design analysis	500 maximum words + diagrams

Design practice	2000 maximum words + diagrams
Design proposals	4500 maximum words + drawn submission
Construction approach	4000 maximum words + supporting information

4.4 The information requirement is more fully set out at [Appendix 2](#) in a format similar to that required of bidders, though the wording has been modified to reflect its application to a PSC.



5. Supporting information

5.1 The DDP indicates the supporting documentation that bidders require to formulate priced proposals. This information should be assembled at the OBC stage, as it is needed to prepare the PSC design solution.

5.2 Much of the information could be incorporated directly into the brief, though in practice cross-referencing to supporting appendices or source documents aids preparation and dissemination of this type of briefing information.

5.3 Supporting information may include:

- CDM health & safety file
- Urban Design Framework
- Estate strategy
- Site constraints information
- Landscape Design Framework
- Trust project management procedures
- Records drawings
- Development control plan
- Condition surveys
- Tree surveys
- Estate terrier
- Ground condition information
- Services infrastructure
- Existing utility consumption
- Development consents
- Town planning development plans
- Environmental impact assessments
- Outline planning consent
- Asbestos surveys
- Overview and Scrutiny Committee reports.

5.4 In many cases, it will not be practical or economical to provide copies of the information as part of a design brief's appendices. Record drawings of existing site services and buildings, for example, may be fragmented, voluminous and in various formats and states of repair. In these cases, before work on the PSC design solution begins, the trust's design team may wish to abstract relevant information and redraw it for future use for both its own work and that of the private sector. In so doing, the status of the information should be clearly specified, including the extent to which design teams can rely upon it. Similarly, source material should be scheduled and described, and arrangements for access to view it made either in a data room or by use of IT.

5.5 Consideration should be given at this stage to how the benefits of surveys, condition appraisals and the like can be assigned to bidders later in the process.

6. Practical issues

Appointing and managing technical advisers

6.1 Procuring a major health care development through PFI can be a complex business, requiring a wide range of specialised skills. In developing its PSC a trust will need early input from a team of technical advisers, including designers. The main role at this stage of the process is for the technical advisers to generate a robust design brief and then to develop an exemplar design solution to demonstrate that the brief can be met.

6.2 It is important for trusts to have access to the right skills at the right time. Failure to appoint suitable advisers at or before this stage may mean that information is produced late – or not at all. This will compromise the quality of briefing information being supplied to bidders, possibly resulting in poor design responses and delays to the design development process, as well as placing the trust at risk in later stages of the negotiating process. It is a requirement of the DDP that trusts appoint technical advisers to develop their design briefs.

6.3 Trusts should identify and document at the outset all the technical skills that will be needed during design development. These are likely to include surveyors, engineers, architects, urban designers, landscape architects, contractors, healthcare planners, town planners and project managers. Construction project management expertise may also be required, particularly where the robustness of implementing the PSC depends on complex engineering and construction phasing. Other than project managers and healthcare planners, it is unlikely that professionals of sufficient experience with knowledge of major capital projects and PFI procurement will be available in-house. Moreover, professional accountability backed by PI insurance is an important risk management consideration. When using in-house staff it is important to ensure that they are given sufficient time to perform their role and that proper cover for their normal job is provided. Trusts should also consider the potential impact of problems with continuity where key in-house roles change over the lifetime of the project. Changes are more likely to occur where the period between strategic planning and project completion is greatly extended.

6.4 Whether in-house or external, it is critical that technical advisers are appointed early in the design briefing and development process. Involving competent advisers at the strategic planning stage is advisable. The studies undertaken at this stage are highly interactive,

complex, and demand high levels of creative thinking. It is essential that these activities are properly resourced, as the outcomes will form the foundation for more detailed thinking and planning later.

6.5 When appointing external technical advisers, trusts should ensure that the advisers have real experience from other schemes, and be clear which individuals associated with the firms will be personally associated with the project. They should be thoroughly tested during the selection process. The technical adviser's brief should define their role and clearly set out their tasks. They should be appointed through EC procedures in accordance with the Capital Investment Manual.

“ It is important for trusts to have access to the right skills at the right time ”

6.6 The level of professional fees should be adequate to fully resource the teams; for example by referring for advice to the RIBA and the Landscape Institute. If trusts fail to employ quality teams with fees appropriate for the outputs required, a good-quality PSC is unlikely to be produced.

6.7 It is another requirement of the DDP that trusts are able to demonstrate clinical and user involvement in the design development process. Trusts should involve a wide range of people in the process, including clinical and non-clinical staff, patients and the public, managers and those with a technical background. The role of technical advisers here is to encourage everyone to think in terms of outputs not inputs. This means thinking creatively and not just describing what already exists. Trusts should not underestimate the amount of work and time required to draw up a design brief.

6.8 Once the PSC has been developed it is important that all technical advisers confirm that they agree with the exemplar design solution and costs (that is, that the design meets the brief, complies with relevant guidance, and is affordable) before the scheme is committed to market.

6.9 For more detailed advice on technical advisers, refer to Treasury Taskforce Technical Note ‘How to appoint and manage advisers’,²⁹ Department of Health’s guidance in ‘Public Private Partnerships in the NHS’,¹² NHS Estates’ ‘Best Client Practice Guide’,¹⁷ and CABE’s ‘A Guide for Clients’.³⁴

Obtaining planning permission

6.10 Under this guidance, trusts are required to obtain outline planning permission for the site to be developed as part of their OBC. Trusts are advised to appoint Town and Urban Planning advisers to develop, with the trust and local authority, a Statement of Principles and Urban Planning and Development Framework and to seek outline planning approval. Trusts are also advised to inform the Overview and Scrutiny Committee of proposed plans and agree with them a process for keeping them involved. Dialogue, started previously during a trust’s estate strategy and SOC work, should be maintained with the planning authority, and the planning issues identified prior to submitting an outline planning application. Specific planning requirements will need to be built into the design brief and addressed in the design solution of the PSC. To do so, however, specialist studies may be required: for example, traffic impact and transport plans may need to be undertaken and environmental and visual impact surveys prepared. These, together with the conditions that may be attached to the planning permission, will form the parameters for the design solution.

6.11 Planning permission should be sought for the principle of the development, and not the PSC design solution. This will allow for detailed negotiation of the preferred solution at full planning permission stage to be progressed unencumbered.

“ Planning permission should be sought for the principle of the development, and not the PSC design solution ”

6.12 Trusts may decide to involve the planning authority in the evaluation process for the PSC design

solution. This gives them an opportunity to comment on the resolution of town planning issues in the solution. These comments can then be fed back to bidders to better inform development of their proposals.

Balancing design and costs

6.13 In preparing the OBC, assumptions about capital costs and optimism bias will have been made during the initial option appraisal process leading to the adoption of a preferred option. These assumptions – such as standard departmental cost allowances, normative on-cost allowances and high-level contingency provisions – will need to be verified during design development of the option to confirm a robust PSC cost for inclusion in the OBC. Additionally, land ownership issues and the cost implications of land transactions will need to be addressed. To be robust, the PSC will have been subject to design cost planning using a known cost datum⁷ but should also be an estimate of “out-turn” cost and not traditional tender cost. An iterative process will be required to ensure that the brief, the design solution and the costs match.

6.14 The trust’s technical advisers, particularly the cost manager, will assess the level of design development information required for costing purposes. Departmental cost allowances are a robust source of cost information, provided the spatial and equipment content of the department matches the requirement of the trust. An initial option appraisal exercise is unlikely to have tested this assumption to any great extent. As detailed in Chapter 3, a schedule of accommodation, based on a model of care and operational policy briefs, will need to be developed for the PSC. This will entail direct engagement with trusts’ clinical staff, who should take ownership of the scheme from initiation and throughout the process. The PSC should demonstrate clinical and user involvement, including staff and patients, in the design development of the scheme. From a risk perspective, this is an essential element of risk management in relation to determining contingency allowances.

6.15 More technically, the on-cost elements of the scheme will need to be measured through an appropriate level of design detail and investigation, though in some cases assessments may need to be made. These should be bespoke, rather than be based on percentage norms. To be robust, off-site infrastructure requirements – such as the availability of utility supplies and the cost of any

6. Practical issues

highway improvement work – should be determined. At the same time matters of risk will need to be accounted for in the contingency allowances for the PSC and ownership identified by those best able to mitigate them. Risk should not be used, however, as an avoidance measure for investigating matters further.

6.16 The on-costs for the scheme should reflect the design and quality issues. They should be derived from the work of the clinical and other users and not be defined as a cost ceiling from standard data. Clinical and other user involvement, including patients and staff, is essential to determine the nature and quality of both the internal space that links departments and of the external environment. For example, good-quality communication space, hierarchically ordered to provide easy access and a variety of experiences, will differ from utilitarian corridors necessary to achieve purely functional routing. Similarly, recreational courtyards as opposed to functional light wells may be an important choice that trusts may wish to make and account for in their PSC.

6.17 The trust's cost manager will need to clearly document the level of design quality envisaged in the PSC. In addition to those examples cited above, this may

include the level of acoustic performance required; sophistication of the building management system; the quality of internal environments – artwork, artwork space, quality of natural and artificial lighting etc; and, from a community perspective, the requirements for civic de-

“ trusts will need to develop criteria with which to assess the PSC design work as it develops and choices are made ”

sign. In this way, the trust will clearly indicate to bidders the quality of its requirements and provide a level playing field for bidders to respond.

Evaluating design proposals

6.18 To achieve a robust public sector procurement proposal informed by briefing, cost planning and design studies, trusts will need to develop criteria with which to



St Mary's NHS Trust Presentation

assess the PSC design work as it develops and choices are made. The same criteria should be used to assess all bidders' proposals both to demonstrate improvement by the market and to identify areas of improvement during design development negotiations. The evaluation framework should be maintained throughout the selection process to ensure consistency.

6.19 For design evaluation, the Achieving Excellence Design Evaluation Toolkit (AEDET) should be used. It has been developed by NHS Estates as authoritative guidance to help trusts make better decisions when evaluating design proposals. It is recommended that evaluation teams are provided with training in the wider aspects of design before evaluating through AEDET.

6.20 Evaluation of the PSC design solution using AEDET will produce an understanding of its strengths and weaknesses. Such an analysis should be made available to bidders' design teams as a building block upon which to improve its strengths and overcome its weaknesses.

6.21 Project teams should also be aware of the NHS Environmental Assessment Tool (NEAT)³⁰ which provides criteria for the measurement of sustainability issues and which is a requirement in business case submissions. Though outside this paper's focus on the design brief framework, it has clear links to design decisions and should be included in the overall evaluation framework of PSC and subsequent bidders' proposals alike.

6.22 The AEDET toolkit is used at various key stages in the design development process and to support the non-financial assessments required in business cases. The toolkit comprises a series of key questions supported by lists of related issues which need to be considered. The questions are answered by entering a numeric score into an Excel spreadsheet. The spreadsheet then automatically averages out the answers in each of the ten sections and enters them into a table, and a radar chart, to create what is known as a "Design Evaluation Profile".

6.23 The benefits of this approach include:

- an agreed method of design evaluation, which can be built into the PSC;
- key headings for developing a design brief, which can be built into the PSC;
- suggested categories for trusts to use when evaluating bids;

- agreed terminology to use when preparing design information.

6.24 In time, AEDET will form the basis for a national benchmarking system of design quality for healthcare buildings.

The design approval process

6.25 At trust board level, approval of the PSC design solution should be supported by the trust's Design Champion, who will have been involved in the process of stakeholder involvement and external scrutiny of the proposals.

6.26 Robust design briefs and design solutions are achievable only through the early and wide involvement of stakeholders in the project. The overall approval of clinical, user group, patient representative, community and others will culminate in their participation in the formal evaluation process, using AEDET and NEAT. In so doing, the strengths and weaknesses of the PSC design solution will become apparent, as inevitably not all people from all perspectives will have all their desires met. This knowledge is useful for setting design challenges to the private sector's design teams.

6.27 Another source of advice is the Design Review Panel (DRP).³¹ It will offer advice, guidance and support to trusts preparing PSC design solutions. It was established by the Secretary of State for Health in 2001 to ". . . ensure that good design is embedded within the NHS hospital building programme" and is managed by the Centre for Healthcare Architecture and Design (CHAD) at NHS Estates with the support of the Prince's Foundation and the Commission for Architecture and the Built Environment (CABE).

6.28 In order for the DRP to add benefit to the design process it is essential that trusts identify the appropriate timing of the design review. The first review will be of the PSC proposals and the second one of the bidders' responses to the ITN, prior to the selection of a preferred bidder. Major capital schemes are reviewed. Trusts need to integrate the design review and incorporation of its recommendations within the project programme.

Appendix 1: Synopsis of activity for producing PSC design information

The project director takes full responsibility for all the main activities listed below. Conventional OBC activity requirements are assumed to be underlying and are not re-stated in this synopsis.

Element	Main activities/information	Paragraph number	
Strategic Outline Case	Review information in SOC relevant to PSC information requirements and identify key stakeholders and development opportunities	3.4, 3.40	
Project control	In collaboration with key stakeholders, establish effective control procedures for production of PSC design brief and design solution	3.40	
Employment of advisers	Appoint technical advisers for design brief and design solution work, including design team, planning supervisor and healthcare planner, and set up team to facilitate consultation workshops	6.1–6.9, 3.40	
Evaluation framework	Establish a common evaluation framework for assessing the PSC's and private sector's design proposals and run stakeholder consultation exercises	6.18–6.24, 3.40	
Design brief	Develop the design brief independently of the design solution (but test against design findings and include consultation results) using AEDET categories:	3.0	
	FUNCTIONALITY	3.4–3.36	
	1. Use	service philosophy, functional requirements and relationships, including infection control, workflow, logistics, layout, human dignity, flexibility, adaptability and security	3.7–3.17
	2. Access	vehicles, parking, pedestrians, disabled people, wayfinding, fire and security	3.18–3.20
	3. Space	space standards, guidance and efficient floor layouts	3.21–3.36
	IMPACT	3.37–3.43	
	4. Character and innovation	excellence, vision, stimulation, innovation, quality and value	3.44–3.46
	5. Citizen satisfaction	external materials, colour, texture, composition, scale, proportion, harmony, aesthetic qualities	
	6. Internal environment	patient environment, light, views, social spaces, internal layout and wayfinding	
	7. Urban and social integration	sense of place, siting, neighbourliness, town planning, community integration and landscaping	
	BUILD STANDARD	3.44–3.46	
	8. Performance	daylight, heating, ventilation, air-conditioning, acoustics, passive thermal comfort	
	9. Engineering	engineering management systems, specialist and emergency systems, fire safety, engineering standardisation and prefabrication	
10. Construction	phasing, maintenance, robustness, integration, standardisation, prefabrication, health and safety		
Supporting information	Assemble information about the site – its buildings, infrastructure, operations and capacities – investigating and commissioning additional work as may be required to support the production of a design brief and design solution that minimises exposure to risk	5.0	
Design solution	Undertake design studies to inform the design brief's development and produce an exemplar design solution that meets the brief and sets out:	4.0	
	Design approach Design analysis Design practice Design proposals Construction approach	2000 word statement 500 words + diagrams 2000 words + diagrams 4500 words + drawn submission 4000 words + supporting information	

Appendix 1: Synopsis of activity for producing PSC design information

Element	Main activities/information	Paragraph number
Cost management	<p>Refine costing of preferred option in the light of PSC work and its public sector procurement strategy, work up running costs and carry out rigorous risk assessment to establish contingency allowances</p> <p>Obtain confirmation of PSC affordability from commissioners</p>	6.13–6.17
Design approvals	<p>Have the PSC design solution reviewed by the NHS Estates/CABE/Prince's Foundation Design Review Panel and address its findings</p> <p>Confirm clinical, user group and stakeholder approval of the design brief and design solution through the use of AEDET and NEAT</p> <p>Review the strengths and weaknesses of the PSC design solution against the design brief in preparation for setting design challenges to the private sector's design teams</p> <p>Obtain the trust's Board's "sign off" of the design brief and design solution</p>	6.25–6.28
Outline planning permission	Obtain outline planning permission for the principle of the development, ensuring the design brief, the PSC design solution and planning conditions are congruent	6.10–6.12

* Note: The proposed changes to AEDET discussed at 3.1 will re-order the categories to align with the Design Quality Indicator of the Construction Industry Council. The redefinition of some sub-categories is also proposed; for example, "Form and Materials" is to be substituted for "Citizen Satisfaction", reflecting more accurately the subject-matter of the category.

Appendix 2: Design solution information set

PSC design and construction element	PITN ref. No.*	PSC benchmark requirement	AEDET Design brief ref. No.	Form of response required
Design approach	E1	High level statement and overview of the approach that the PSC would adopt in managing the design process up to Capital Investment Manual Stage 2: Certificate of Readiness to proceed to Tender	1.1	2000 max word statement
Design analysis	E2	Design analysis of both the site and the requirements of the design brief. The review of the site(s) should identify high level opportunities, constraints and access issues as addressed by the PSC design solution	1.2 2.1–2.7 7	500 max words + diagrammatic information
Design practice	E3	<p>Explanation of how the PSC design solution would reflect good design practice and sustainable development in delivering facilities that support the trust's healthcare principles and philosophy.</p> <p>This should include:</p> <ul style="list-style-type: none"> – Details of architectural quality and how it will be ensured; – The design management process to be used; – Approach to delivering sustainable development; – An explanation of how energy consumption and waste will be minimised and of supply contract strategies; – Compliance with HTMs, HBNs and DCAGs; and – Compliance with statutory requirements 	All NEAT 2.0 8.1–8.4/ 9.8–10 3.1, 3.2, 8,9 3.2, 10.5	2000 max words + diagrammatic information
Design proposals	E4	<p>Submission of design proposals that clearly indicate how the trust's requirements will be delivered within the parameters identified above.</p> <p>The proposal should include –</p> <ul style="list-style-type: none"> – Site planning and development proposals. In particular, the proposal should address how the design will be flexible enough for the trust to adapt it to alternative uses and to extend it in response to new developments in healthcare 	1.7	4500 max words + 1:250 site plans and conceptual building proposals 1:500 block departmental adjacencies
	E5	– An overview of how the design flexibly incorporates the requirements of the University, if applicable	1.7	
	E6	– Demonstration of consistency with outline planning permission, together with an overview of the approach to urban planning	7.1–7.6	1:200 general arrangement plans
	E7	<ul style="list-style-type: none"> – An overview of how the design solution would deliver an environment that supports the well being of patients, staff and visitors. – The needs of people potentially disabled by the physical environment and its design should be expressly addressed. – The design solution should address issues of security as well as satisfying initiatives such as consumerism. – Responses should specifically include (but not be limited to) wayfinding, pedestrian access, access to public transportation and car parking 	1.3 2.6 1, 2, 9, 10 2.4	Diagrammatic explanation of staking arrangements Outline of functional content

* Equivalent Mandatory PITN Information Reference Number

Appendix 2: Design solution information set

PSC design and construction element	PITN ref. No.*	PSC benchmark requirement	AEDET Design brief ref. No.	Form of response required
	E8	<ul style="list-style-type: none"> An explanation of design concepts with any innovative solutions supported, where possible, with examples from real projects. Design concepts should demonstrate how they have addressed the interests of stakeholders, including (but not limited to) clinicians, patients (and their representatives), health commissioners, Local Government, the Prince's Foundation and CABE 	All	<p>Schedule of Accommodation</p> <p>Engineering schematic information</p>
	E9	<ul style="list-style-type: none"> An overview of the design solution's approach to healthcare planning in responding to the brief, demonstrating how the design solution has been driven by clinical needs (such as infection control), other equipment needs, national NHS objectives (eg National Service Frameworks), and its subsequent ongoing management in the delivery of the trust's healthcare objectives 	1.0–1.8	<p>Elevations and Cross-sections</p> <p>Supporting illustrative material (such as perspectives, axonometrics)</p>
	E10	<ul style="list-style-type: none"> Details of proposed functional relationships, both clinical and non-clinical 	1.4	
	E11	<p>Proposals for integrating the build proposals with IM&T with particular regard to:</p> <ul style="list-style-type: none"> Telecommunications; Understanding of the implications of Information for Health,³² Building the Information Core³³ and the trust's IT strategy. The design should include the minimum IM&T required to deliver the build, plus any other forms of IM&T as appropriate. Clarity about to whom each element of IM&T would be subcontracted; Flexibility, ie ability to expand with increasing activity volumes, to graft new functionality as healthcare needs change and to interface with the aspirations of the trust's local healthcare economy. <p>(Note: this section will need tailoring and or scaling back depending on the content and size of the scheme)</p>	9.11 10.4	In above
	E12	<p>The design solution should set out its proposals for value-added IM&T, such as:</p> <ul style="list-style-type: none"> The range of systems for which the design offers solutions (eg EPR, departmental, non clinical systems); Proposals for the migration of NHS systems; Procedures for the development of bespoke systems and interface issues with existing NHS ITR systems; Examples of how such systems have been developed and implemented in the health environment; Support and disaster recovery arrangements. 	9.11 (10.4)	In above
	E13	<ul style="list-style-type: none"> Clear engineering services strategies including the approach to building services and the manner in which the integration of new and existing buildings will be achieved 	9, 8, 10.4	In above
	E14	<p>An explanation of the PSC's equipment solution, making clear how equipment proposals meet:</p> <ul style="list-style-type: none"> The trust's current and future healthcare needs; The requirements of the trust's service providers; and Life-cycle/capital replacement requirements. <p>The solution should cover how it would select equipment suppliers and how purchasing arrangements will ensure value for money. The solution should set out if, and to what extent, it plans to utilise contracts operated by the NHS Purchasing and Supply Agency.</p>	2	In above

* Equivalent Mandatory PITN Information Reference Number

Appendix 2: Design solution information set

PSC design and construction element	PITN ref. No.*	PSC benchmark requirement	AEDET Design brief ref. No.	Form of response required
Construction approach	E15	The design solution should outline its construction and or refurbishment proposals in sufficient detail to demonstrate delivery of the proposed developments. Within the scope of the proposal, the design solution should address how the construction phase of the project will be managed, particularly: The selection of key materials, the nature and extent of refurbishment within the overall construction;	10	No more than 4000 words supported by: 1:250 site plans indicating the approach to the construction Outline construction programme Indicative lifecycle schedule for the proposed design specification Decant and mobilisation plans
	E16	Building services strategy	9	In above
	E17	Impact on existing services	10.1	In above
	E18	Partnering arrangements within the supplier chain (covering, for example, proposals for creditor payment standards, sharing of cost savings, performance measurement and management)	10.6, 10.7 9.3, 9.4	In above
	E19	The PSC should outline its approach to commissioning, setting out the principles for completion tests and inspections to be carried out during the construction phase of the project	9	In above
	E20	Key phasing and decanting proposals in outline to reflect the continued operation of clinical and support services. In addition, an indication should be given of the favoured construction methodology, with access routes, zoning requirements for major plant, contractors' compound etc	10.1	In above
	E21	Proposed design and construction timetable	1.1	
	E22	Property proposals including the future use of retained buildings, disposals and future property development	1, 2, 3, 7	In above
	E23	The solution should indicate the approach to lifecycle maintenance of both buildings and equipment (for example, replacement with like for like, technological upgrades)	NEAT 2	In above
	E24	The solution should describe the management issues relating to design, construction and CDM that would be encountered and how these would be resolved. Where possible, reference should be made to real problems; eg within the last three years	All	In above

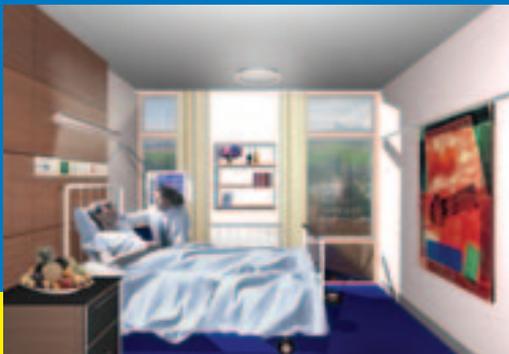
Appendix 3: References

1. **Public Private Partnerships in the NHS: The Design Development Protocol for PFI schemes** – Revision 1, Department of Health and NHS Estates, August 2004
2. **PFI: Meeting the Investment Challenge**, HM Treasury, July 2003
3. **Improving standards of design in the procurement of public buildings**, Office of Government Commerce, and Commission for Architecture and the Built Environment, 2002
4. **Changes to HM Treasury green book – Annex: Optimism Bias**, Department of Health, December 2003 (electronic publication at <http://www.dh.gov.uk>)
5. **Green Book: Appraisal and evaluation in central government**, HM Treasury, January 2003
6. **Better Health Buildings**, NHS Estates (electronic publication at <http://www.chad.nhsestates.gov.uk>), 2002
7. **How to cost a hospital**, NHS Estates, 2004
8. **Public sector comparators and value for money**, Treasury Taskforce Policy Statement no 2, HM Treasury, February 1998
9. **How to construct a public sector comparator**, Treasury Taskforce Technical Note no 5, HM Treasury, 2003
10. **Strengthening Accountability: Involving Patients and the Public**, Department of Health, February 2003
11. **Capital Investment Manual**, Department of Health, 1994
12. **Public Private Partnerships in the NHS: the Private Finance Initiative**, Department of Health, 1999
13. **Overview and Scrutiny of Health – Guidance**, Department of Health, July 2003
14. **Achieving Excellence Design Evaluation Toolkit** (electronic publication at <http://www.nhsestates.gov.uk> – downloadable, including full instructions on its use)
15. **ADVICE: Advice to trusts on the main components of the design brief for healthcare buildings**, NHS Estates, July 2002 (electronic publication at <http://www.chad.nhsestates.gov.uk>)
16. **SDC – Healthcare Planning: Design Brief Guidance**, NHS Estates, 2002
17. **The Best Client Practice Guide**, NHS Estates, 2002 (electronic publication at <http://www.nhs-procure21.gov.uk>)
18. **Towards cleaner hospitals and lower rates of infection: A summary of action**, Department of Health, July 2004
19. **Infection control in the built environment**, NHS Estates, 2nd edition 2002
20. **Enhancing privacy and dignity – achieving single sex accommodation**, NHS Estates, 2001
21. **Improving the patient experience** (series of documents), NHS Estates, 2002–2004
22. **Health Building Notes** (series of documents), NHS Estates
23. **Supplement to Quarterly Briefing, Vol II No.3 2001/2002**, NHS Estates
24. **Activity DataBase**, computerised graphic and database software, NHS Estates
25. **Healthy Hospitals** – Commission for Architecture and the Built Environment, November 2003
26. **The architectural healthcare environment and its effects on patient health outcomes**, NHS Estates, 2003
27. **PITN Guidance Notes (Version 2)**, Department of Health, Private Finance Unit, February 2003

Appendix 3: References

28. **Framework guidance for the estates content of business cases**, NHS Estates – April 2004, electronic publication at <http://www.nhsestates.gov.uk>
29. **How to appoint and manage advisers to PFI projects**, Treasury Taskforce Technical Note no 3, HM Treasury, 2003
30. **NHS Environmental Assessment Tool**, NHS Estates, 2002
31. **Design Review Panel** (suite of information) electronic publication at <http://www.chad.nhsestates.gov.uk>
32. **Information for health: an information strategy for the modern NHS, 1998–2005**, Department of Health, 1998
33. **Building the information core: implementing the NHS Plan**, Department of Health, 2001
34. **Creating excellent buildings – a guide for clients**, Commission for Architecture and the Built Environment, Oct 2003

Front Cover	David Morley Architects (Public Sector Comparator scheme Sherwood Forest Hospitals NHS Trust)
Back Cover	David Morley Architects (Public Sector Comparator scheme Sherwood Forest Hospitals NHS Trust)
5	Watkins Gray International (Public Sector Comparator scheme Peterborough & Stamford Hospitals NHS Foundation Trust)
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